"Finally, a steroid guide with muscle! This book is the real deal."

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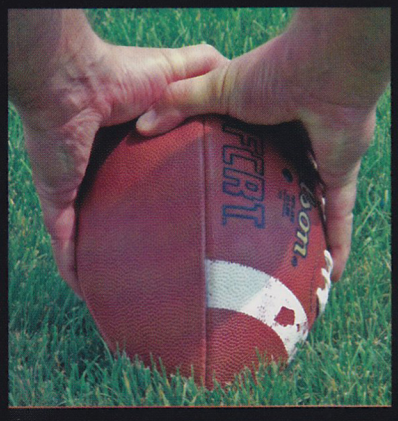

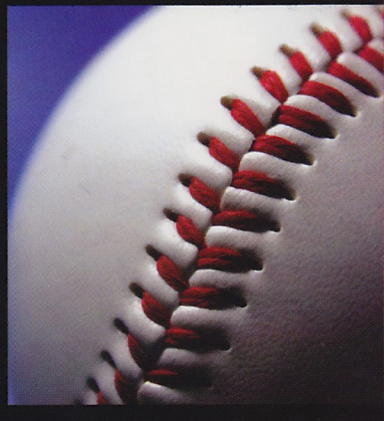

ULTIMATE RESEARCH GUIDE

Vol. 1

Brian Clapp

Anabolic Steroids
Ultimate Research Guide

Vol. 1

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Preface & Dedication

"If I have seen further than other men, it is because I've stood on the shoulders of giants."

~Albert Einstein

"Oh no—another steroid book! We don't need another one of those!" That's probably what a lot of people were thinking when this book hit the shelves. It's what I was thinking every time another book on Anabolic/Androgenic Steroids hit the marketplace. And for the most part, I was correct!

So what makes this one different? For starters, it's not written by a "Guru"; I'm not trying to sell you on my personality. It's not written by an "Oracle"; I'm not trying to give you tons of mystical information, without explanation. I've spent a good portion of my life in pursuit of knowledge…and, to some degree I suppose I have been successful. I simply wish to share some of that knowledge with you, if you'll let me.

This book has been a collaborative effort, with writers and researchers from Steroid.com helping out in many ways. Some of the profiles herein have been partially researched or written by them, and not entirely by me. All of them have been exhaustively checked and double-checked in an effort to bring you the highest standard of work. I have also been greatly helped by the staff and members of various anabolic steroid discussion boards around the internet, but none more so than the ones I have cultivated personal and in some cases, intimate, relationships with the staff. To many of them I owe a debt I can never hope to repay.

I would also be remiss in my duties as an author if I didn't inform you that much of the groundwork for this project was predicated by those who came before me in the field. In particular, I am deeply indebted to Dan Duchaine for his pioneering work in the field of Anabolics as we know it today, as well as to Karl Hoffman for elevating the quality of current Anabolic Steroid paradigms to levels heretofore unthinkable. Both of them will be missed by many, myself especially.

I am of course indebted deeply to Brian Clapp, who believed in me enough to produce and publish the work you now hold in your hands.

I am going to reserve my final dedication here for something a bit different; I had originally thought to make a dedication at this point to my family, and friends who are so dear to me, that I could scarcely imagine completing a project of this magnitude without their continued love and friendship. That final dedication, however, I am going to reserve, as disused, and leave unstated. The simple fact of the matter is that dedicating a book to them would be redundant, as I endeavor each day to live a life which will make them proud, and in some way justify the friendship and love they've shown me for the past twenty seven years…this book, therefore, will not be dedicated to those who I have already dedicated my entire life to. At best, it can be seen as only a small part of a life that is hopefully lived in such a way as to thank them for being a part of it. It is only as a result of their friendship and love that, were I given a chance to live my life over again, exactly the same way, I would gladly take it.

Chapter 1

Why Anabolic Steroids?

"There comes a time in a man's life where, if there are no windows or doors, he must walk through a wall."

~Bernard Malamud

If you're like me, you learned about the Declaration of Independence when you were in grade school—if not, that's the thing that says, "All men are created equal." You then went out into the schoolyard for recess, and for some reason, maybe you couldn't run as fast as some of your classmates. Perhaps you couldn't jump as high, or throw a ball as far. All men created equal? Bah! What a load of garbage!

Let's talk a bit about genetics, ok?

There have been a ton of studies on genetics, and basically, current research from the Bouchard Labs strongly suggests that up to 50% of the variance in athletic performance, potential, and adaptation to training is genetic. In other areas such as height, the genetic contribution to inter-individual variance is around 80%. Basically, the Bouchards have suggested that athletes are born, and if they aren't, then they are certainly born with more potential to react favorably to training. How about gaining or losing weight? Are you always struggling to gain weight? Are you always struggling to lose it? Bouchard's work in this area states that there is familial aggregation of Body-Mass-Index (BM) and other body composition characteristics such as body fat percentage, metabolism of adipose (fat) tissue, etc. Bouchard's work claims that genetic heritability is responsible for between 25 to 40% of these traits.

Wanna be even more depressed? Check out your fingers and which is longer, the index finger or the ring finger? The ring finger in males is usually longer than the index finger; however, the fingers are about the same length in females. This suggests the role of testosterone in early pre-childhood development (Manning, 2000). The more testosterone you produced as a fetus the longer your ring finger got, so the smaller the index/ring finger ratio.

Who cares? Men with smaller finger ratios are considerably better athletes. NO! I'm not kidding. They are more likely to become athletes and to reach much higher levels in most sports (Manning & Taylor, 2001). Professional football (soccer) players tend to have lower finger ratios than non-athletes. Starting players have lower ratios than reserve or youth team players. Footballers who have represented their country have lower finger ratios than those who haven't. Men with lower finger ratios even run faster 800 m and 1500 m races! And that's all clearly genetics.

Remember that kid in the schoolyard who was taller than you, and was always picked first for basketball games? Clearly he has the genetics to be taller than you. But wait, it gets worse: if he has the right genetics, you can train just as hard as

him, but he'll receive a more favorable response from it! Add in some favorable muscle tie-ins, connective tissues, the right muscle belly length, and some decent fast twitch fiber recruitment, and that kid will pretty much beat you at any sport. And those are all simply genetic traits. You can work as hard as him and lose. Even worse, you can work harder than him and still lose.

Ok, so if you are one of the genetic elite, then that's all great for you. If you were the kid who was always picked first for dodgeball in gym class then that's all well and good for you. If you are steroids for sale like me, however, one of the genetically average, keep reading because there may be a solution.

When testing for anabolic steroids wasn't done in certain elite level track events, (a brief period in the 80's) the results for the women's events began to catch up with the men's results. When testing was resumed, it began to fall off and the gap began to widen once again. Women simply don't have the same hormones, fast twitch muscle make up and overall structure that make men more successful in those events. And, being a woman is certainly genetic (my apologies to Ru Paul). Since they were all elite level athletes, it can safely be assumed that their training and diet regimens were optimal. So, how did women begin to bridge that gap? Steroids and other performance enhancing drugs, it has been speculated, were the "X-Factor" in helping women track athletes catch up with their male counterparts.

Take away the genetic advantage, and what will you have left to decide who wins athletic events? You will have training, diet, and most importantly, the will to succeed. I'd much rather see athletes compete on an even genetic ground (even if it is "evened up" by performance enhancing drugs); a ground where the deciding factor will be heart and guts, not genetics. So, this is my effort to level the playing field and to show you how to "supplement" your genetics. Performance enhancing drugs won't win athletic events for someone, but they'll help to remove the inequality and accidental nature of a genetic disadvantage. What will be left if we take genetics out of the picture?

Determination.

Heart.

Guts.

And isn't that what should decide athletic contests?

Chapter 2

How to read this book

I assume you already know how to read (you're reading right now, right?) and I want you to consider reading this book in a different way than you would read something by Dan Brown (the "DaVinci Code" guy) or even by William Llewellyn (The "Anabolics" guy). I will assume that you have some kind of athletic goals in your life; they may be related to bodybuilding, athletics, looking good at the beach, or whatever. I want you to take a sec and consider what they are specifically. Getting ripped is not a specific goal, but gaining 10lbs of muscle and losing 5lbs of fat is a goal. Presumably, you've bought this book in an effort to learn how to tweak your body chemistry here or there and to help you achieve your goals.

I've written this book with you in mind. All of the information in this book is the most up to date information I could find in medical libraries, online, and in clinical studies. Where there is information "missing" on a particular compound, it is generally unable to be found. Many of the steroids mentioned here in this book (Oral Turinabol for example) have been totally discontinued by pharmaceutical companies for decades. As a result, the current Merck Manual doesn't even list it as existing. It is, therefore, very difficult to find information on a product that the largest pharmaceutical companies in the world and every doctor and scientist you speak to assures you doesn't exist anymore. For another example, try finding out information on the Polish company that makes Omnadren without speaking Polish, or knowing that the original company who made it has changed their name. Try finding information on Furazabol, which is made exclusively by a Japanese company, without speaking Japanese. Ever try researching Parabolan (made by the French company "Negma") without being able to read or speak that language? Sorry if I'm being redundant, but I want to assure you, my reader, that I have gone to every possible length to make this the most complete book on Anabolics available, without learning another language. I've also chosen to include a lot of "redundant" information in profiles, which you will find in several of them, as well as elsewhere in the book. Why? Because I want you to be able to read one profile (if you should so choose) and walk away with a complete understanding of that drug. If that makes parts of the next profile you read seem redundant, then so be it. You will not find a more complete steroid book anywhere, even if you should only choose to read bits and pieces.

As well as the information I have found in medical libraries and such, I've also spoken with literally thousands of bodybuilders and athletes, both in person and online, via e-mails and anabolic message boards. I have been fortunate enough to be involved with several very good message boards, the largest being Steroid.com, which is actually the most visited anabolics website in the world having 3million or so hits per year. Through that site, I was able to speak with many athletes and bodybuilders who I otherwise wouldn't have had access to. They have shared their stories and experiences with me, and that has all been factored into this book.

This book is made (of course) to be read from start to finish; by doing so you will gain the most complete understanding of the subject matter at hand. But, if you

choose to read only bits and pieces of it, then you will have the most thorough understanding of those bits and pieces.

Research Anabolic Steroids
and Related Topics at:

http://www.Steroid.com

Chapter 3

An Introduction to your Endocrine System

If you're anything like me, you've already read half of the steroid profiles and picked out a cycle from the sample cycles page. You've probably avoided reading this chapter for as long as possible. In my case, when I bought my first "big" steroid book, that's what I did. I put off reading this section for, I dunno, five years?
Well, maybe not that long, but to be honest, this usually isn't the most interesting part of your typical steroid book. I will assure you that this isn't your typical steroid book, and that this chapter won't put you to sleep. I'm not trying to give you a thirty-page explanation of how every little thing in your body works, but rather, a quick overview of the hormones responsible for muscle growth, and their functions in your body. This'll help you understand how anabolic steroids function to assist you in building muscle and strength.

So, our deal will be that I'll make it quick, if you promise to read this entire chapter. I own several really big books on this subject, and I have no desire to bore you with their entire content or to have to re-read them to do so. Ok, let's get to it.

Your endocrine system is a system (duh) of cells, tissue, organs, and parts of the nervous system which all act together within your body to maintain homeostasis (the *status quo*). What we're gonna do is figure out how to tweak this system to grow some more muscle and gain some more strength.

Hormones: A hormone is simply a substance secreted by a cell that has an effect on another cell. They can stimulate changes in target cells even when they are only present in miniscule amounts.

Testosterone: This is the primary male sex hormone. Settle in, this is going to be a long explanation, but possibly the most important one. Testosterone is manufactured in the Leydigs cells in the testes, at about 2.5-11mgs/day for the average male. You know those dudes with full beards in Junior High School? Yeah, they are probably producing somewhere around the upper limit. The testosterone molecule floats around in your body eliciting various changes including the building of muscle, and development of male sexual characteristics. Remember those receptors I told you about earlier? Yeah, well testosterone "parks" in those spaces and delivers it's message ("Build more muscle"), then "unparks" and drives around the lot looking for another spot to park in and deliver it's message. In normal males 2% of testosterone is unbound to protein (free), 54% is bound to albumin and other proteins, and 44% is bound to sex hormone-binding globulin (SHBG).

Prolactin: This is a protein that promotes milk production in the female body, and even worse, if you screw up, in the male body. Prolactin causes a decrease in Luteinizing Hormone, and this lowers testosterone (see below).

Follicle Stimulating Hormone: This hormone (commonly referred to as FSH) is a gonadotropin, which is responsible for egg-cell-containing follicles in the female ovaries, and it also stimulates follicular cells to secrete estrogen. In males, it helps

stimulate the production of sperm cells in the testes during puberty. It also may tell the testes to secrete testosterone, but certainly influences the number of leydigs cells, which we secrete testosterone. . Finally, FSH stimulates the production of Androgen Binding Protein in the Sertoli cells.

Luteinizing Hormone: This stuff (usually called LH, in shorthand) promotes the secretion of sex hormones. We're hoping to keep it high (or not let it get too low) so it keeps telling out testes to secrete testosterone. Both LH as well as testosterone is secreted in pulses between eight and fourteen times per day, testosterone being preceded by LH by approximately an hour. Testosterone is, of course, controlled via a negative feedback loop, thus a higher level of testosterone in your body causes a decrease in LH.

Estrogen: This is the primary female sexual hormone. Men don't want much of it floating around, as it is responsible for some nasty side effects like water retention, gynocomastia, acne, etc. It also may aid in growth by helping production of IGF and GH and may even enhance immune function. It can also increase the amount of androgen receptors in the body. We certainly want some of it around, but not too much, as it can also lower testosterone levels.

Steroids: These are compounds whose molecules contain fairly complex rings of Carbon and Hydrogen atoms. Steroid hormones include (but are not limited to) testosterone and estrogen, and we will be primarily concerned with those two although we will examine many other hormones. Sometimes we use the term "steroid" to mean anabolic steroid, which is only one possible type. Steroid hormones (like testosterone) are soluble in the lipids that make up cell walls. This means they can get into a cell and mess around with the receptors in the nucleus, which is exactly what we want.

Receptor: This is a thing in the cell that is basically like a parking spot. When a steroid hormone comes in, it's like parking a car in that spot. The steroid hormone then tells the cell to do something. If the hormone is testosterone, it may tell the cell to "build more muscle!" If the hormone is estrogen, it may say, "Watch *Desperate Housewives*!" Well, not really, but you get the idea.

Androgen Receptor: This is the parking spot "reserved" for steroids like testosterone and such, in other words, androgens.

Prostaglandins: Some of these regulate cellular responses to hormones and stimulate the secretion of a variety of hormones.

Negative Feedback System (or loop): This is the system by which your body recognizes an abundance of a particular hormone and consequently stops producing it. In simple terms, if you are injecting testosterone, your body will sense this and stop producing its own.

Pituitary Gland: The anterior lobe of this secretes a variety of hormones such as growth hormone, thyroid- stimulating hormone, prolactin, follicle-stimulating hormone, and luteinizing hormone. You want to keep this thing healthy and happy.

Growth Hormone: Growth Hormone (GH) is a protein that stimulates your body's cells to undergo more rapid cell division. It enhances the movement of amino acids through cell membranes and causes an increase in the rate in which they convert

molecules to proteins and decrease the rate they use carbohydrates and increase the rate they use fats. It is secreted in rhythmic pulses, especially while you're asleep and has an important anabolic effect on the body.

Growth Hormone-Releasing Hormone: This stuff is the hormone that releases growth hormone. Clever name, huh? Whenever it's released, a pulse of GH is also released.

Insulin: Insulin is a protein secreted by the pancreas that acts on the liver to stimulate the formation of glycogen from glucose and inhibits the conversion of non-carbohydrates into glucose.

Insulin-Like Growth Factor: Insulin-like growth factor is released from the liver in response to GH. It has an important anabolic effect on the body.

Glucagon: This is a hormone that is produced in the pancreas and regulates blood sugar levels. Unlike insulin, glucagon is released when blood sugar levels are low. It causes the release of glucose from glycogen.

Thryoid Stimulating Hormone: This is a protein bound to a carbohydrate. Yum! No…just kidding…it is a protein bound to a carbohydrate, but what it does is control the secretion of hormones from the thyroid gland.

Hypothalamus: This releases gonadotropin- releasing hormone, and also controls most secretions of the pituitary gland, which leads me to the. ...

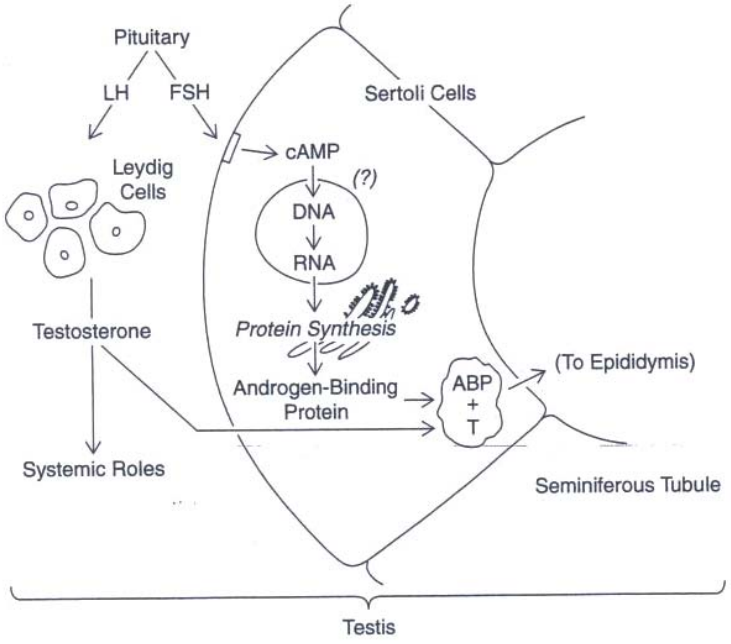
Pituitary Gland: This is where the Philosopher Rene' Descartes thought the soul lived. Actually, it's much more important because it controls the secretion of LH and FSH, and thus, the production of testosterone! It also controls secretion of GH and thyroid stimulating hormone.

Hypothalamic-Pituitary-Testicular-Axis: This is usually called the HPTA, and as you can guess, it basically regulates all of the hormones that stimulate the production of testosterone as well as GH and other goodies. Needless to say, keeping your HPTA in good working order is very important.

Aromatization: This is the process by which testosterone converts to estrogen, via the aromatase enzyme. This occurs in various tissues, such as skeletal muscle and adipose tissues. Also, you'll experience less of this if you have less adipose tissue (less fat on a cycle means fewer sides, believe it or not).

Dihydrotestosterone: This stuff, also called DHT, is made from testosterone in your body via interaction with the enzyme 5-alpha-reductase, which adds 2 hydrogen atoms to testosterone. It has a variety of effects in the human body, and is responsible for certain unwanted side effects such as hair loss. DHT interacts strongly with the central nervous system, and has both anabolic as well as androgenic effects.

Ok, so let's take a look at all of that stuff in action:

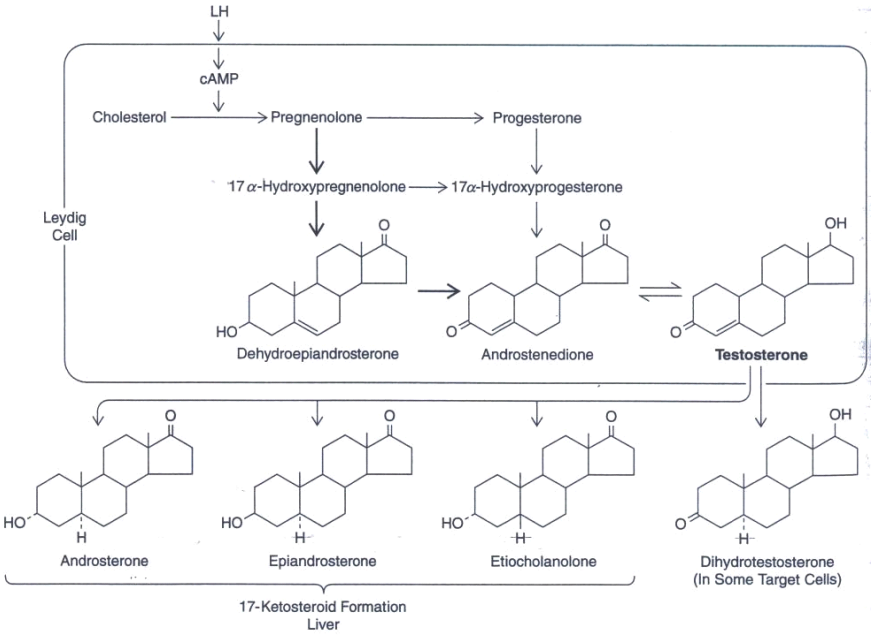


That was by no means a comprehensive list of the hormones in your body, or their functions, and of course it's not everything that each and every hormone does or can do under special circumstances. But it's good enough for our purposes here, and knowing what those hormones do will help you know what the various steroids we're going to discuss will do in your body. That doesn't mean you can't read this book out of order, or read the profiles first. Actually, quite the contrary, I've written this book so that you can read just one anabolic steroid profile (if you want) and walk away with a complete knowledge of how it works and what it does. Actually, while I prefer you read the whole book, you can read it out of order, mix and match chapters, etc. and still walk away with a wealth of knowledge about every single item you read. But at least now you have a basic understanding (actually, I prefer to call it a "working understanding") of the primary hormones we'll be discussing in this book. And now that you know whats going on in your body, we can talk about what steroids are and how they exert their effects.

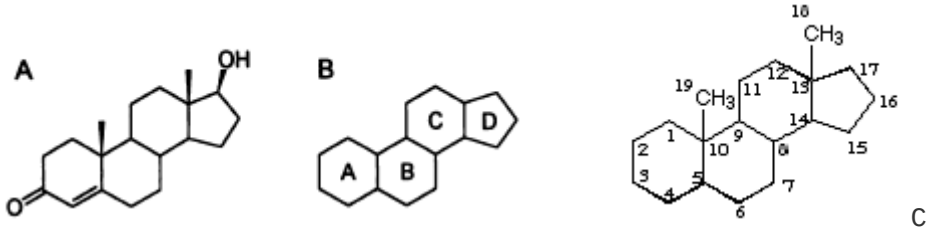
Chapter 4

How Anabolic Steroids Work

Anabolic steroids are drugs that resemble androgenic hormones like testosterone, or derivations thereof. The defining characteristic, structurally, of all steroids is their four-ring structure. Your body produces various steroids from Cholesterol (yes, the icky stuff doctors tell you to avoid), which undergoes modifications and can eventually become testosterone (if you're lucky). This chapter will help you understand what they do in your body, how they exert their effects, and how they are metabolized.



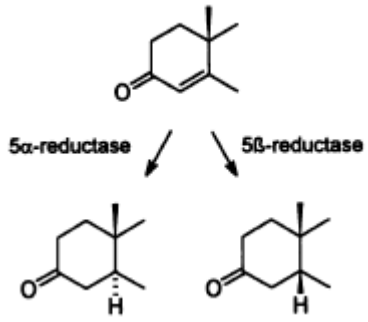
Ok, so remember that four-ring structure I was talking about? This is called the Steran Nucleus, and for our purposes there are four rings (A, B, C, and D), and 19 positions on the structure:



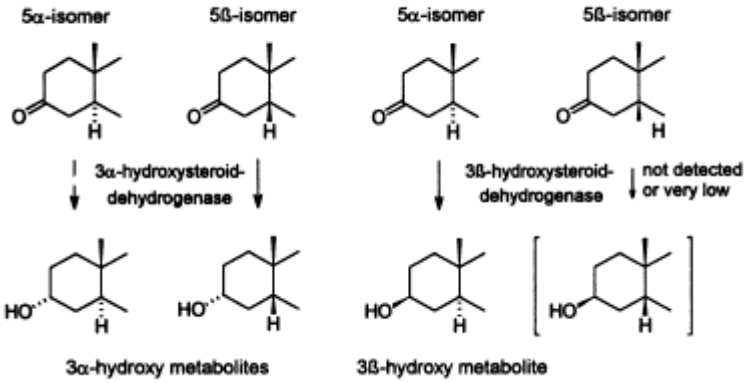
C

Figure A represents your basic testosterone; Figure B shows you which rings are A, B, C, D respectively; and Figure C shows you the 19 positions on the rings. Why is this important? Well, you can add carbon bonds, add beta groups, etc, and that produces different steroids. Typically, the A-ring and D-ring are modified to produce different steroids (with different effects). This is because the A and D rings generally undergo the most drastic metabolation in the body, so modifying them produces more bang for the buck, generally speaking. The B-Ring metabolism is most pronounced when A-ring metabolism is in some way hampered. The changes the B-ring typically undergoe are 6b-hydroxylation and 6, 7-dehydrogenation. These changes are, in fact, not very drastic. C-ring metabolism is even more modest, being a simple 12-hydroxylation. If you didn't catch those last few parts, don't worry, because they aren't super-important. Let's talk about A and D ring metabolism for a second, ok? These are where we need to focus our energies, because understanding them is very important, while B and C ring metabolism is generally very limited, and won't really be a concern to us at all, in any applicable context. First, A-ring metabolism…

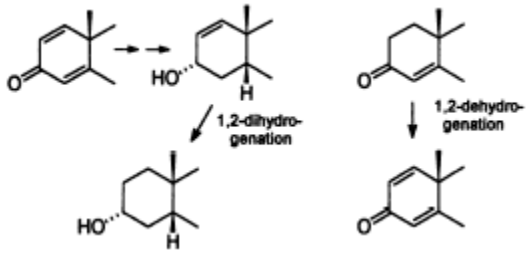
In the A-ring we see 5alpha and 5beta reduction taking place:



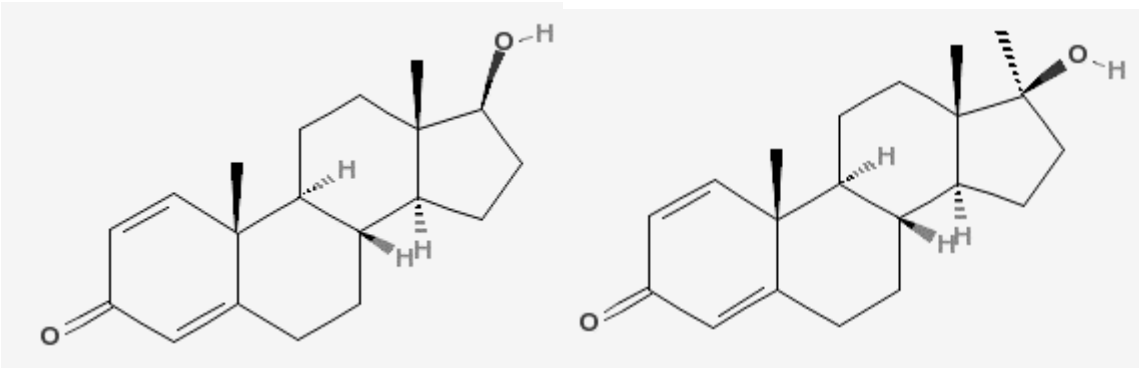
And of course, 5alpha Reduction (5a-Reduction) is what turns testosterone into DHT. This is the initial step in metabolism of testosterone and many of its analogues, and basically just reduces the C4, 5 double bond—that's the little line on the bottom of the first ring that's missing in the lower left version of that pic above, where the hydrogen ("H") has "appeared". As you can see, 5beta-reduction is very similar, though not of prime concern to us here. After this reduction, typically the 3-keto group is transformed. Stability and instability of the 3-keto group is important to androgen binding, and the more stable the 3-keto group is, the more avidly a compound can bind to the Androgen Receptor and/or increase anabolic/androgenic activity (even doing so, in certain cases, independently of each other). Certain modifications to steroids can enhance the stability of the 3-keto group, such as 2-methylation or adding a 2-hydroxymethelyne group (the first modification is seen with Masteron and the second with Anadrol). On the other hand, Ethylestrenol lacks a 3-keto group totally, and is probably the weakest steroid available. Let's take a look at the removal of the 3-keto group:



Of course, the above example focused on testosterone, and if you add a double bond between the one and two carbon atoms of testosterone, you've made Boldenone (Equipoise). As you can see here, Boldenone is metabolized slightly differently since the 1-2 double bonds slows metabolism (hepatic breakdown, aromatization, etc…) down:



Add a 17-alpha-methyl group to that Boldenone we just spoke of, and you have Methandrostenolone (D-bol), which is broken down similarly, although it is orally active in the body due to the 17a-methly group:



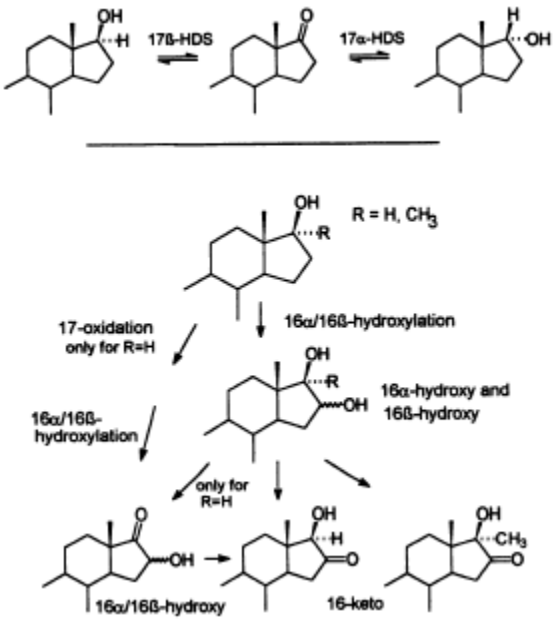
(Boldenone, or Eq-No ester shown) *(Methandrostenolone or Dianabol)*

(Note that Dianabol and Equipoise are the same EXACT compound with exception to the methylation you see at the 17th position for the Dianabol).

There are, of course, other actions that happen (or simply can happen) in the A-Ring, but we need not concern ourselves with them here. It is suffice to say that they are not of interest to us, again, generally speaking.

Now, let's finally look at D-Ring metabolism…

The D-ring (the weird little one on the end with fewer sides than the other rings) is metabolized into testosterone's main metabolites. This occurs by oxidation of 17b-hydroxy groups into 17keto steroids, which are shown less intricately in the first chart in this chapter. In some cases, they can even be converted back to the original configuration by the same enzyme (17b-HDS).



Hydroxylation can also occur at other positions, as can epemirization, or oxidation, within the D-ring. And remember, the D-ring is where we can methylation them to survive oral ingestion.

All of that was the first phase of anabolic steroid metabolism, which determines the primary effects they will have in the body. Phase II metabolism has more to do with metabolites, their degradation, and the eventual elimination of them and the steroid from the body, and as such is beyond the scope of our discussion here -well…. really, its just beyond the scope of our interest, more or less, because it's not going to help us understand the anabolic actions of steroids any better. The preceding information should help you later in this book, when I mention that this (or that) steroid has a particular modification to help it do something (or other). I know that once I started understanding a little of what I am presenting here to you, I found it a lot easier to comprehend what was going on when I looked at a steran nucleus or chemical name for a particular steroid.

Synthetic anabolic steroids are based on the principal male hormone testosterone, modified in one of three ways:

a. Alkylation of the 17-carbon (makes them survive oral ingestion)
b. Esterification of the 17-OH group (alters active life and half life)
c. Modification of the steroid nucleus (changes their properties)

Pretty simple huh? But despite the number of synthetic AAS that have been developed by these little modifications here and there, their modes of action are still poorly understood.

As you know, male hormones, primarily testosterone, are responsible for the developmental changes that occur in boys during puberty and later in adolescence. Male hormones have both androgenic and anabolic effects. Androgenic effects are changes in primary and secondary sexual characteristics, like enlargement of the penis and testes, voice changes, hair growth on the face, increased nervous system efficiency, and increased aggressiveness. The anabolic effects of androgens (again, like testosterone) include increasing and limiting muscle protein synthesis by increasing transport of amino acid across cell membranes. It is also an anti-catabolic and inhibits cortisol by competing for receptor sites, as well as reducing cortisol secretion and the signals, which precede cortisol secretion. In addition to these anabolic effects, Testosterone increases the secretion of the other anabolic hormones in the "super family", such as growth hormone and Insulin-Like Growth Factors from the liver, and finally, it produces an enhanced rate of erythropoietin synthesis. All of these effects are, of course beneficial to athletes, and explain how steroids exert their performance enhancing effects.

These effects are mediated, at least partially by stimulation of receptor molecules in muscle cells (which we generally call androgen receptors), which activate specific genes to produce proteins. Binding affinity to the androgen receptor has been used to explain the differences in potencies and effects of the natural and synthetic androgens we talk about, but that isn't the full story. There are, of course, other effects that steroids exert, and we call those "non-receptor-mediated" effects. These are effects that happen indirectly, and not as a result of androgen receptor stimulation. Stimulation of the androgen receptor produces both anabolic and anti-catabolic effects, such as the retention of more nitrogen and the reduction of cortisol, respectively. Remember, Cortisol causes muscle breakdown.

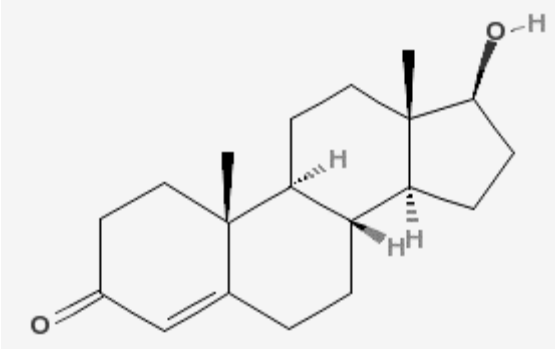
Sounds great, right? It's everything we want and more! It's not all roses, however, because Anabolic steroid use decreases testosterone secretion. This happens because your body operates on a negative-feedback-loop in regards to testosterone. This means we're going to attempt a balancing act regarding our natural hormones and the ones we put into our body. If you read this book carefully, you'll learn how to use (or simply research) anabolic steroids to produce a heightened state of athletic ability, strength, speed, and of course, increased muscle mass. Then you'll learn how to stop using steroids and not lose everything you've gained. Those are, at least, my humble goals for you.

So let's get back to the first thing I told you about, which is how steroids are made. As you saw, simple modifications to the four-ring steran nucleus of testosterone can produce major changes in the hormone. From those simple changes to testosterone, scientists have identified the other two major families all anabolic/androgenic

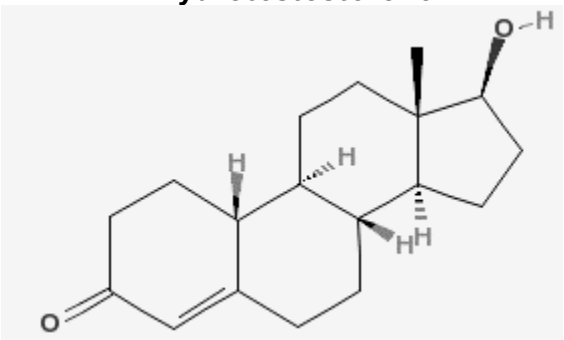
steroids are derived from: 19-nor-Testosterone (sometimes called 19-nor's) and dihydroTestosterone (called DHT).

19-nor-Testosterone is simply testosterone that lacks a carbon atom in the 19th position, and Dihydrotestosterone is Testosterone that has had 2 hydrogen atoms added to it.

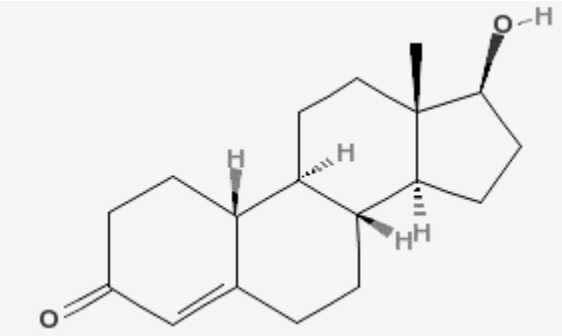
Testosterone



Dihydrotestosterone



19-nor-Testosterone



In general, 19-nor derived steroids exhibit a high anabolic effect and a low anabolic effect with not much aromatization, while DHT-derived steroids usually have a very nice balance of androgenic and anabolic effects and not much aromatization.
Of course, there are also other things you can do to steroids like methylate them (this makes them able to survive oral administration) or add an ester to them (this is a large fatty chain on a steroid that your body needs to work to break down, thus increasing the active life of the steroid). Adding an ester to a product doesn't change its anabolic: androgenic ratio, but methylating it may. Esters do not alter the anabolic or androgenic properties because an ester is simply a chain composed primarily of carbon and hydrogen atoms, typically attached to the base steroid hormone at the 17th carbon position (called the beta position). Attaching an ester to a base compound slows the release of the base steroid from the site of injection. Slowing the release of the base steroid is a great benefit to medicine, especially hormone replacement therapy (HRT) because suspended or free testosterone (or other steroid hormones) would only remain active in the body for a very short period of time. This is basically what is seen with testosterone suspension or Winstrol depot. If you are on HRT, you could take a shot of Testosterone Cypionate (testosterone with a long ester added) once a week, as opposed to taking testosterone suspension once or twice a day. Adding an ester also temporarily deactivates the steroid molecule. With an ester chain blocking the 17th beta position, binding to the

androgen receptor is not possible, so the steroid is inactive. Now, in order for the base compound to become active, the ester must first be removed. This occurs once the compound has filtered into blood circulation, where your esterase enzymes cleave off the ester. This restores the necessary hydroxyl (OH) group at the 17th beta position, which enables the drug to attach to the receptor. Now the steroid is free to do all the good stuff we want it to do. This is why people often say, "test is test," regardless of the ester; regardless of the ester, anabolic and androgenic properties of the base compound retain their respective integrity.

You may, at this point be asking yourself how these anabolic to androgenic ratio's are arrived at. Well, this is kind of weird, but basically, male rats were given a dose of testosterone, sacrificed (killed to you and me), and then had an untrained muscle (the levator ani), and a part of the prostate (the ventral prostate) weighed. Those weights were given a score of 100 each (because 100 is an easy number to work with). When you want to know the anabolic: androgenic ratio of a new steroid, you simply administer it to a group of rodents with the same dose of testosterone used in the original group of rats I just told you about. You then weigh the levator ani and ventral prostate. The weights that are relative to testosterone (and it's 100 score) are the anabolic: androgenic ratio of the new steroid. Of course, that's not 100% relevant or applicable to humans.

By tweaking and refining steroids, scientists were able to create some very interesting compounds that have some profoundly beneficial effects to us as athletes. And now you know (roughly) how it's done, and how steroids work.

I think it would be prudent to take a second to show you how they are named so that you can tie that in with some of the effects we've just discussed and to later (further on in the book) understand the profiles more fully. A lot of what we know about a steroid, or at least part of that, is "coded" in its name *[the part written like this at the start of my profiles]*. If you look in the name of a steroid, and it's something like this:

2-oxy **androstane** 17b-ol 2-one
(the chemical name for Anavar)

See the bold part? That means it's a DHT-derivative, with regards to its base carbon structure.

If it said:

norandrostene 17b-ol 3-one
(Nandrolone)

Then you know the norandrostene part means it's derived from Nandrolone (likewise, generally, if you see 19-nor or something like that)

And finally, if you see the words **testosterone**—duh—or **androstene** in the name of the structure, then you know it's derived from testosterone.

Therefore, we have a steroid like Boldenone (Eq) again and we can figure out a few things about it.

Look at the name:

BOLDENONE
-or-
(17b-ol 1, 4-androstadiene-3-one,)
-or-
Equipoise

And what we see is that it starts with "**BOL**" and the chemical name begins with 17b-ol, hence, "**BOL**."

See what I'm talking about?

17b-ol 1,4-androstadiene-3-one

Next we see **"DEN"** (because the word is Bol-Den-One if you break it apart). Looking in the middle of Boldenone's chemical name we find something similar:

17b-ol 1,4-**androstadiene**, 3-one

And finally we have **"ONE"** at the end of Boldenone, and clearly, the chemical name also has "One" at the very end:

17b-ol 1,4-androstadiene-3-**one**

So, what does all of this tell us? Well, since it starts with **17b-ol** we know that its got something going on at the 17beta position, which is an "ol" and is a Hydroxy (oxygen and hydrogen) group. This is where our estrification (added ester) at the 17-beta-position goes. Now, we also have the middle part, **androstadiene**, which indicates that this steroid has a double carbon bond on the base of a testosterone's steran nucleus or a **di**- bond on **androstene**. In this particular case, the double carbon bond at this position slows aromatization. Eq, as we know, aromatizes to a far lesser degree than testosterone because of this modification. Remember from the beginning of my explanation on all of this that androstene indicates testosterone as a base structure.

Add it all up and we have Boldenone. This is called Equipoise and its name comes from the Latin root of the word Equine, and as you already know, Equipoise (Eq) was developed to give to horses.

Now, if we look at Eq (boldenone) and compare it to Dianabol, (methandrostenolone), we can see how similar they are.

Equipoise:

(17b-ol 1,4-androstadiene-3-one)

And now Dianabol (difference noted in **black/bold**):

(**17a-methyl**-17b-ol 1,4-androstadiene-3-one)

As you can see, the only difference between Dianabol and Eq is the 17a-Methyl group, which is why Dianabol is called a Methylated steroid; it has been 17-alpha-alkylated to survive oral ingestion.

And this, my friends, should tell us a few things. We can tell a lot from just the names I've used in my profiles. When you compare the minor difference in names with the major differences in effects concerning Dianabol vs. Eq) we discover that names aren't everything.

Now, let’s talk about the anabolic: androgenic ratio's...

To determine that ratio, testosterone was given to male winstar mice, and then they were sacrificed, (killed). Their levator ani (a leg muscle which was immobilized during the 21 days) and their ventral prostate were weighed.

The weight of that untrained muscle is the anabolic rating for testosterone, and the weight of the ventral prostate is the androgenic rating. Now, other steroids are administered to these rodents, and the weight of their levator ani and ventral prostate, relative to the weights of those rodents from the testosterone group, are that steroid's anabolic: androgenic rating. Testosterone, therefore, has a rating of 100:100, while Trenbolone has a rating of 500:500. This is the same ratio and is relative to itself, but it is 5 xs as anabolic as testosterone and 5 xs as anabolic.

Again, all of the information in this chapter isn't a perfect way to give us the exact effects a given compound will have in our bodies. However, its a start and it will allow you to have an easier time assimilating all of the information contained in the profiles.

Chapter 5

The game as it's played…

(The state of the Anabolic Steroid Game today)

Let's have a talk about anabolic steroids as they are bought and sold today. A couple of decades ago there was a raging debate between Human Grade vs. Veterinary Grade steroids. Now there is a third contender in the ring, and it's a free for all! That third contender is the UnderGround Lab (UGL for short). Let's talk about all three of these very worthy contenders and then I'll give you my thoughts on each. I will also tell you how I choose to spend my hard earned money, given these choices.

The easiest of these three to identify is Human Grade gear. Major pharmaceutical companies like Organon and Upjohn for use by human beings produce these. Simple, huh?

The second category is veterinary grade steroids. This is a touchy category in recent years and is increasingly a grey area. See, generally, you would assume "veterinary" meant for animals, right? And two decades ago, you would have been correct. If you purchased a bottle of Ganabol, it was certainly intended to end up being shot into some horse's butt somewhere or another. Generally, animal steroids came as low(er) dosed preparations, which was good because, generally, animals require much lower doses than Mr. Olympia Competitors. Then Ttokkyo came out with a 300mg/ml 10cc bottle of Nandrolone Decanoate with a huge mastiff (dog) on the bottle with the slogan "Keep your pets healthy and strong" (wink wink, nudge nudge). Now there are a lot of "Vet" companies making interesting products which are clearly intended for human use. The deal is that generally most countries have much less strict guidelines for vet products as opposed to human grade pharmaceuticals. As a result, now we have a million "Vet" companies making some cool stuff for us. Do we consider that veterinary grade? Yeah, for the purposes of this chapter, if there's a picture of a dog (or cat, or llama, or whatever) on the box or bottle we'll consider it Veterinary Grade, regardless of the intentions of the products manufacturer.

Now, finally and most interestingly (to me) is the UnderGround Lab. This business is just booming, and to help keep up with it, and maybe even make some sense of it, I usually separate them into three categories (three generations, actually).

First generation underground Labs (such as International Pharmaceuticals aka IP) are the ones who actually buy their raw steroid powders and oils directly from Raw Pharmaceutical Supply houses. In this category are luminaries such as Dpharm, (who may or may not be in business anymore) M-Labs, and Stark Labs. Although British Dragon and British Dispensary are legitimately registered pharmaceutical companies, I consider them to be in this category as well. Why? Walk into a hospital anywhere in the world, and you won't find their products there. The same

goes for BodyResearch. They are, for all intents and purposes, just another first generation UGLab.
Second Generation Underground Labs are ones who don't obtain their powders directly from the source. Instead, they go through a middleman, and believe it or not, that is often simply a first generation Lab. Clearly, they are going to have to charge considerably more for their products, as compared to first generation Labs.

And of course, there are even third generation UGLabs. As you may have guessed, these guys are the very bottom of the food chain and often charge a lot for their products because their raw materials have passed through quite a few hands.

Having been involved in the game for quite some time now, I've seen a lot of Labs come and go. I was involved with the original anabolic steroid message boards, (we had around 10,000 members almost half a decade ago) and I was there when powders just started becoming available to the average guy. At that time, Dpharm was operating under another name and selling human grade anabolics and powders. He contacted me and gave me some Eq powder (it's actually an oil at room temperature) for me to make into an injectable form for myself, and in return, I gave him some ideas on what a good product line for an emerging underground Lab may contain. Since then, I know he was looking to get out of the business and may have done so by the time this book is printed. He was a gentleman in all of my dealings with him, as were most UGLabs and steroid dealers (called "sources" in current jargon).

Such is the story of many of the first generation UGLabs who have been around for a while. The smart ones invest their money and get out of the business.

I also have had the opportunity to watch a very small underground Lab, Stark Labs, develop from the ground floor to the very well run private Lab it is today. Stark Labs started out as a member, and later a moderator, on a board I was staffed on. He then left the staff to pursue his venture as an Underground Lab (this was necessary, for illegal activities are not tolerated by any Internet discussion boards that I would be a part of). Anyway, Stark left the staff at that board to pursue this venture, and I was one of his first customers. I bought and tested many of his products, and they all came out to contain exactly what they were supposed to and at the proper dose. Early on, he had some problems with his injectables "crashing" (coming out of solution) or in the case of his Testosterone Suspension, (made with Propelyne Glycol, not just an aqueous suspension) it actually became SOLID (!) at room temperature. Anyway, all that was necessary was to reheat them, but that's the type of products you'll see from a new underground Lab; slightly inconsistent formulas and occasional problems like this are not uncommon. Stark Labs overcame those issues in later batches, of course, and produced many fine products.

Unfortunately, I have also been exposed to the dirty side of the Underground Lab game also. I've seen and heard some stories that would make you sick; I don't need to repeat all of them here, but I know of a Lab whose products gave one guy an abscess, while the discussion board that Lab called home (and the staff and owner of that board) all denied culpability for that Lab's products being unsafe. I've heard of Labs that threaten people for saying that their products aren't great, and even some Labs that give their customers fake or doctored Lab reports on their goods. Others have tried to pass off one drug (Tren) as being a much more expensive one (Masteron). At least their customers got something though; some products could

contain nothing! But, I still feel your chance of finding a good product (at a good price) from a reputable Underground Lab is high.

Clearly, there are both good and bad Underground Labs out there, and finding a good one is all part of the game. You then have to hope that Lab doesn't get busted or retire to start a legit business with their drug money!

Remember Dan Duchaine? Well, he used to run a mail order steroid business, and his old business partner (the co-author of the first *Underground Steroid Handbook*) took that money and invested it into a supplement company. That company is now one of the largest in the world and it was all built from selling amps of Deca and Test in the 80's! You'd be surprised (shocked?) at how many supplement companies got their start from being steroid dealers.

This next part is probably the most shocking thing I'm going to tell you in the entire book:

I prefer using underground Labs to human grade gear (i.e. I would use Stark Labs over a major "legit" pharmaceutical company). Why? Several reasons, actually. There are far fewer counterfeits and/or bootlegs made of them as compared to legit human grade steroids. It's much more profitable to counterfeit an amp of Primobolan and sell it for $12-15 per milliliter than to try to make a fake vial of (say) Stark Primobolan and sell all ten milliliters for $100. Then economics just aren't there to justify faking a UG Product over (say) an Organon one.

In addition, the owners of the first generation Underground Labs have very good quality control and very sterile conditions to produce their steroids under. You know why? They use them! Yeah, that's right, every UGLab owner is basically an AAS user himself and uses his own products. To my thinking, that's the best quality control in the world, and the best endorsement. In addition, you can find some cool stuff available only from Underground Labs, like long estered Masteron or Trenbolone. On the next pages, you'll see the Lab tests I had done on Stark Labs Trenbolone Enanthate as well as other products. It tested out very well, but as noted on the Lab report, they had nothing to compare it to, as no Trenbolone Enanthate existed to get base scores from before underground Labs started producing it. In addition, with underground Labs, you'll find some highly concentrated (milligram per milliliter) gear available, and that brings me to a very interesting point:

You're going to get better results from taking a more highly concentrated steroid as opposed to a less concentrated one, even if the milligram amounts are the same. That's right, if one guy takes (for example) a 100mg shot of Deca which is 25mgs/ml (i.e. he takes a 4ml shot equaling 100 total mgs) and another takes that same milligram amount as one ml (i.e. he takes a 1ml 100mg/ml shot), the second guy is going to have a higher blood plasma level of Nandrolone (1). Why is this, when they both took 100mgs total? To be honest, I don't know why this is, but that's what the Minto *et. al.* study has shown us. This could explain why the 200mg/ml Drostanolone Enanthate (Masteron Enanthate) I used gave me the better results than the 100mg/ml Drostanolone Propionate (Masteron) I used, even though the longer ester prevents a higher peak blood plasma level of a given hormone.*

Let's review those two points:

1. More highly concentrated steroids provide higher blood plasma levels of the base hormone even when total milligram amounts are the same.
2. Longer esters provide significantly lower blood plasma levels of the base hormone even when total milligram amounts are the same.

This is another reason why I prefer underground Labs. You can get virtually any product from them and in any concentration and ester. Clearly, I prefer short esters and high concentrations when it comes to steroids because they will always, milligram for milligram provide higher blood plasma levels of the base hormone and ergo better results.

The trick is finding a reputable underground Lab, and getting on their customer list. You're on your own for that one.

However, if you are inclined to buy Human or Vet grade steroids, I have some tips for you to help spot counterfeits. This is by no means an all-inclusive list, but rather, some easy to remember tips for your next round of purchases. Here's what to look at:

- Uneven levels of liquid- Take a look at two amps from the same manufacturer side by side. Is the level of oil in them even? If not, at least one is a fake.
- Weird Labels- Does the Label look shoddy on either the box or the vial/bottle you are buying? Do you think a multimillion (or billion) dollar company would produce something that looks like a kid with an I-Mac Label maker made it? If the Label is weird, then the product is probably fake.
- Uneven Labels- Ever see an uneven Label on a legitimate product of any kind? From a bottle of Jack Daniels to a bottle of Cola, have you ever seen an uneven Label on one? No, right? Well the same goes for pharmaceuticals.
- Expiration Dates- These should be stamped onto both the box as well as the product inside, and not printed in the same ink as the rest of the Label. And they should match, of course.
- Hologram- Look closely…is it a hologram or a silver sticker? If it's just a silver sticker, you have yourself a fake.
- Go with your gut instinct- Is there something dodgy about the store you are buying your products at? Is the source acting shady? Always walk away.

Incidentally, you may notice that we have neglected to include a bunch of glossy pictures in the back of this book to help you distinguish real steroids from fakes. Well, this is because at this stage of the game, the fakes are as good as the real product. A decent graphic designer with any one of a dozen programs can simply remove a Label from a legit product, scan it, and begin producing his own counterfeit products. And they'd be perfect. These days, even home computers with the right printers and programs can generate watermarks, holograms, and perfect forgeries of virtually any product. A quick trip to the local office supply store can then provide you with a stamp to put on the date, and you're in business as a counterfeit steroid producer.

Finally, you can go to sites like www.Steroid.com, which has a forum where members post pictures of both real and counterfeit steroids. This way, you can compare what you've been popping into your ass cheeks to a real-time picture of what's currently available. This can provide you with some insight as to what is real and what is fake. You need to be careful, however, as to what discussion boards you

frequent. I can tell you that the vast majority (99%) of them produce very little in the way of worthwhile information, and most have at least one or two UGLabs or sources on their staff. In most cases, anabolic steroid discussion boards, as well as the staff on them are very average. If this book is in your hands, there are very few boards that are going to offer you anything at all over what you are currently reading. A great many anabolic steroid discussion boards often have a vested interest, as many of those discussion boards are owned by a dealer or Lab who uses it to sell their products indiscriminately, or the owner and staff get freebies from a certain Lab privately and sing that Lab's praises publicly. This is true of the vast majority of anabolic steroid discussion boards on the Internet, in one-way or another. I have been very fortunate to never have been (knowingly at least) involved with situations like that. If you frequent Internet anabolic steroid discussion boards, and you ever see a board or staff defend a source tooth and nail, or tell you a particular Lab is the best thing since Organon…for no reason? The reason is free product under the table. You can bet on it.

Anyway, if you are still interested in Human/Vet products, and don't want to buy fakes, you can also go take a look at the actual sites run by the makers of various steroids and compare the lot #'s, expiration dates, and pictures to your stash. Here's some website addresses to look at:

Bratis:

http://www.bratisLabs.com/

Brovel:
http://www.brovel.com.mx

Denkall:
http://www.ausvetdenkall.com/

ICN:
http://www.icnpharm.com/

Jurox:
http://www.veterinaria.com.mx/

Organon:
http://www.organon.com/

Quality Vet:
http://www.qualityvet.com.mx

Serono:
http://serono.com/

Ttokkyo:
http://www.ttokkyo.com.mx/

Upjohn:
http://www.upjohn.com/

Powerline:
www.powerlinemex.com

Animal Power:
http://www.animalpower.com.mx

Tornel:
www.tornel.com

British Dragon:
http://www.britishdragon.com/

Pharmacia El-Ramoz:
http://www.pharmacia-elramoz.com/

Kexing:
http://fitropin.com

Gen-Sci:
http://www.gensci-china.com/green/english/english.htm

Genetech:
http://www.gene.com

That list it by no means exhaustive, but it could save you a few dollars (or Pesos) by helping you avoid buying fake gear.

Before ending this chapter, I'd like to caution you against going online simply anywhere to look for pictures of fake vs. real steroids. Most Internet web sites and bulletin boards allow anyone who registers to post pictures of "real" and "fake" steroids. Thus, as you can expect, people who sell fake steroids simply register and post their pictures as "real" steroids, and nobody is the wiser. *Caveat Emptor*.

Reference:

1. Pharmacokinetics and Pharmacodynamics of Nandrolone Esters in Oil Vehicle: Effects of Ester, Injection Site and Injection Volume Charles F. Minto, Christopher Howe, Susan Wishart, Ann J. Conway and David J. Handelsman

Chapter 6

Injection Technique

Ok, so you have your bottle(s) of injectable steroid and your needles. Now you're ready to give yourself that first shot. I'll assume you're like me and you've spent hours staring at the needles and bottles before working up the courage to give yourself that first shot. When I started out in this game, like many others, I read the Underground Steroid Handbook and got the advice to do glute shots "high and to the side" and that's about it. Well…that was, and still is good advice. If you are a visual learner (like me), here's a better idea:

Go grab yourself a porn-mag (no really). Take a look at a pic of someone naked, facing away from you and standing up straight (you may need to search for that one…). Now draw a line down one of their ass cheeks, vertically, right down the middle. That's your sciatic nerve; stay away from it. Now draw a line across the middle, this time horizontally, right through the middle of the cheek. See the upper/outer most past of those 4 parts you just separated the ass cheek into? That's where you are aiming when you do an injection in your glute.

If you are nervous, you can practice holding the needle like a dart, and pushing it into an orange. Apparently the surface tension of the orange makes it very similar to human skin, so nursing students often use oranges to practice.

So here's what you want to do for a glute shot (1):

1. Sterilize the area you are going to inject. You can use an alcohol pad, but I usually just take a shower with anti-bacterial soap, and shoot when I get out. Remember, your skin also softens up a bit in the shower, and this makes for an easier shot.
2. If you are using a multi-use vial, clean the top off with an alcohol swab. If you are using an amp, crack it open.
3. Take the needle out of the package. If you are using oil based steroids, then you need a 22 or 23 gauge needle. Water based steroids will usually go through a 25ga. and higher needle depending on the compound. Usually, I just buy a couple of hundred 23ga.x1" needles with 3cc syringe casings (that's the part that holds the liquid). If you are doing deltoids, triceps, biceps, etc. injections (i.e. small muscles) then you can use anywhere from a 25ga.x5/8th" needle to a 23ga.x1" needle. Glute and quad shots usually require a 1.5" needle, of the same gauges discussed earlier. As long as the needle is open enough to let the liquid get through, and long enough to get past your fat and skin into the muscle, then you're fine.
4. Pull air into the needle and inject it into the vial. This creates pressure in the vial, making it easier to draw the steroid out with.
5. Now draw the solution into the syringe by pulling on the stopper while the needle is facing up.

6. Pull the needle out of the vial when you have the desired amount of steroid in the syringe.
7. Hold the needle upright and tap the sides until the air bubbles are at the top, and then push them out by tapping the plunger a bit.
8. Now you can either change the needle, or use the same one to inject yourself. I just use the same one, but if you are drawing from 2-3 vials, then you might want to replace it at the end before you inject yourself.
9. Stretch the skin on the area of your glute you are going to inject: [with your thumb and forefinger,]
10. Holding the needle like a dart, push it (in one motion) all the way into your muscle.
11. Draw back slightly on the plunger, and make sure it doesn't fill with blood. If it does, you are in the wrong spot, and you need to start over in another muscle.
12. Push the plunger in until the syringe is empty.
13. Pull the needle out and put on a Band-Aid. You can massage the area a little if you want, as this can decrease soreness the next day. Trust me.

If you are shooting elsewhere than the glute, pretty much aim for center mass and avoid visible veins but follow the same basic procedure that I just shared with you. I don't recommend shooting more than 3mls of anything into a given injection at any given time.

If you are using a particularly thick steroid (and by that I mean the oil is viscous) then you may want to hold the syringe part horizontal under hot tap water for a minute. This will heat the oil slightly and let it flow more smoothly. Just remember to keep the cap on the needle while you run it under water.

Personally, I've injected in my glutes, biceps, quadriceps, triceps, traps, and deltoids. I've considered calves, but it seems a bit too awkward, and I've considered pecs, but it seems a bit too "Pulp Fiction".

I provided information on glute shots because it's the easiest to explain and because when you shoot "X"mgs of a given steroid into a large muscle, you will get a higher blood plasma level than shooting in smaller muscles, even when the amount and concentration of the steroid is the same (1). The lesson here is that for maximum results, you will always shoot in the largest muscle possible. But you still can't shoot in the same spot more than once per week because you will develop too much scar tissue. Remember to rotate injection sites if you are doing shots every day or every other day.

Now, we need to discuss what it's going to look and feel like if you get an infection. First of all, you're going to feel a kind of soreness that's different from a typical injection. It's going to be more of a sharp pain, as opposed to a dull pain. The next thing is that it's going to be discolored around the injection area and, will have a clearly defined border. I'm not talking about a little red area here. It's more like a very large blister at first with some kind of fluid inside it. Gross, but wait, it gets better. During the final stage there is a very viscous fluid inside the border, and a very dark discoloration. By this time, it will be a very large protruding bulge that possibly needs to be drained. This final discoloration will be very dark and you'll definitely, at this point, know that something has gone terribly wrong.

I need to add that you may want to search the Internet for pictures of this, on medical websites, but you should be forewarned that they typically show pictures of very easily diagnosed infections and abscesses. What this means is that you'll be looking at a very large and absurd picture, which may look quite different from your own infection/abscess, if that's actually what you have.

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Chapter 7

Designing your own Cycle & Sample Cycles

It is, of course, my hope that you will be able to read this book and design a cycle for yourself custom tailored to your personal goals. But in this chapter, I'll give you my thoughts on bulking and cutting cycles, and how to design them. I will be frank and say that both of them depend greatly on training and diet, but that bulking cycles are very dose-dependant and cutting cycles are compound-dependant. What the hell do I mean? Well, quite simply, steroids follow a dose respondent curve in terms of muscle gained per mg of steroid. The more you use, the more weight you gain. Thus, creating a bulking cycle is reasonably simple. In general, I tend to stick with 2 compounds (test and deca, perhaps) and use moderate to high doses of each.

Cutting cycles are another animal altogether. Instead of simply relying on large amounts of drugs, you need to remember that when you are in a calorie restricted state, your sensitivity to exogenous androgens is going to be greater (Neuroendocrinol 1994; 6: 397-402). Therefore, your selection of compounds needs to be given greater care than when you are simply trying to gain maximum weight. Remember, they are going to have a pronounced effect in the absence of libitum calories. To figure out how to design a cutting cycle, I've been looking around at various cutting cycles, interviewing athletes and bodybuilders, asking people what they've gotten their best results from, and keeping track of what compounds and dosages have been used. My main concern was what type of cycle has been producing the best results for people, and what similarities do the most prouctive cutting cycles share. The more I researched, the more I found out that there were trends within cutting cycles among experienced users. Some will not be surprising to you, and some will be pretty obvious.

One of the most obvious trends I've noted has been the use of shorter esters in cutting cycles and longer esters in bulking cycles. Anecdotally, shorter estered drugs seem to be less likely to cause bloating. This means Testosterone Propionate would be preferable to Testosterone Enanthate or Cypionate and Nandrolone PhenylPropionate would be preferable to the standard Deca (Nandrolone Decanoate). Test Enth or Cyp would of course be fine for a bulking cycle though.

This should come as no surprise to most people.

What I have to say next is probably going to be a major surprise to you.

The most productive cutting cycles I've read about on the 'net ***ALL*** followed a simple structure. Here's the pattern or structure:

Every single highly successful cutting cycle I've ever looked at contained Testosterone. Some also contained another testosterone based compound as well. Eq is a popular addition here.

Every single one contained a 19-nor-testosterone based compound as well. The

Nandrolone branch of the 19-nor family is well known for being very anabolic and not incredibly androgenic, while the Trenbolone branch is very androgenic. Also, it has the strongest androgen binding affinity of any commonly used injectable. I feel that a proper cutting cycle will contain some compounds that bind very strongly to the Androgen Receptor, and perhaps some others which have several non-receptor mediated mechanisms of action.

And finally, every really good cutting cycle I looked at contained a DHT based compound as well. Generally Winstrol and/or Masteron were used.

So, what we have here are all 3 major families of Anabolic/Androgenic Steroids. They are represented (Testosterone, 19-nor-Testosterone, and DiHydroTestosterone) in 99% of all *HIGHLY PRODUCTIVE* cutting cycles and are Testosterone 1a-nor-Testosterone, and DiHy6dro Testosterone. Remember roids, A/A steroids will all fall into
one of the 3 categories I have mentioned.

I can tell you that I'd almost always include Trenbolone with Winstrol in a cutting cycle. Tren binds very strongly to the anabolic receptor, and Winnie binds rather poorly...by combining them, we may have some additional synergy. NPP (Nandrolone Phenylpropionate) also has a reasonable bind to the AR, so it may be substituted for Tren. It probably should not used alongside it with any appreciable synergy. And of course, using either of those without Testosterone would kill your sex life.

I'm also noticing that most of the magic is easily achieved with doses under 2grams (total) with regards to cutting cycles. I know that personally, if I were to do a cutting cycle, I'd run around 400-500mgs or so each of a DHT, 19-nor, and Test based compound. Price would factor into things, I'm sure, as would availability.

I've noticed that cutting cycles require far less milligrams of AAS per kg of bodyweight. This creates some pretty amazing results but I never really knew why. Then I was researching androgen efficacy in feed restricted animals (what, you don't have hobbies?) and found that feed restriction can encourage enhanced androgen receptiveness (McManus et. al.). This means the steroids you use will produce greater results when you are under caloric restriction, and thus, your cutting cycles will actually be more effective (in a milligrams vs/ results gained) than your bulking cycles.

Bulking cycles use much higher doses, of course. At the stage in my life, I usually use testosterone propionate + one other compound for my cycles.

I'm sure many readers want to know about including GH or Clen (or Letrozole) into this discussion, but it's simply beyond the scope of what I'm doing in this chapter. I think that those are good compounds and are certainly worth including if you have access to them and (in the case of GH) the funds but they simply aren't necessary (unless you need the Letrozole to combat gyno, or simply like to use Clen, which is now fairly cheap). Perhaps with higher doses, they become more necessary, but I feel that their inclusion is really on a case by case basis.

There it is, how I would design a cycle for optimal results using optimal compounds and dosages. As a last word, I'd like to remind everyone that diet and training will be part of your cycle-puzzle, and that the dugs mentioned above will make things

easier. However, keep in mind that they certainly will not make you ripped or huge on thier own.

Combine those 3 families of steroids and different receptor binding abilities and you will have a very potent cycle. Use high(ish) doses and you have a very nice bulking cycle. Now that you have an understanding of how I design my own cycles, I'll leave you to design your own. But, I have some sample cycles you may wish to try.

Beginner's Cycle

This is your basic Beginners Cycle, comprised entirely of testosterone. Not only will you get more muscular on this cycle, but you will learn how your body reacts to endogenous amounts of testosterone.

Week	Testosterone (Enanthate or Cypionate)
1	500mgs
2	500mgs
3	500mgs
4	500mgs
5	500mgs
6	500mgs
7	500mgs
8	500mgs
9	500mgs
10	500mgs
11	500mgs
12	500mgs

Beginner's Cycle (*with Kick Start*)

This is the same cycle as the one above, but I've included Dianabol at a low(ish) does at the beginning, so you'll start seeing results almost immediately.

Week	Testosterone (Enan or Cyp)	Dianabol
1	500mgs	20mgs/day
2	500mgs	20mgs/day
3	500mgs	20mgs/day
4	500mgs	20mgs/day
5	500mgs	
6	500mgs	
7	500mgs	
8	500mgs	
9	500mgs	
10	500mgs	
11	500mgs	
12	500mgs	

Intermediate Bulking Cycle

This cycle is for those who have done two previous cycles (hopefully the ones above). For those looking to add more weight, Deca would be the appropriate choice here. For those looking to add more lean weight, Eq would be more appropriate.

Week	Testosterone (Enan or Cyp)	Deca-Durabolin -or- Equipoise	Dianabol
1	500mgs	400mgs	20mgs/day
2	500mgs	400mgs	20mgs/day
3	500mgs	400mgs	20mgs/day
4	500mgs	400mgs	20mgs/day
5	500mgs	400mgs	
6	500mgs	400mgs	
7	500mgs	400mgs	
8	500mgs	400mgs	
9	500mgs	400mgs	
10	500mgs	400mgs	
11	500mgs	400mgs	
12	500mgs	400mgs	
13	500mgs		

Intermediate Cutting Cycle

This cycle is for those who have a decent amount of mass already, and wish to refine it. Weight gains will be minimal, but with a proper diet and training (Cardio and Weights), single digit body fat levels should be attainable if you are not too sloppy. Many will disagree with the inclusion of a 17aa like Winstrol for this long, and certainly you can do ½ of the cycle with Winstrol, and ½ with Tren, or mix and match. I've done it both ways and either works fine.

Week	Testosterone Propionate	Winstrol (injectable) -or- Trenbolone Acetate	Anavar
1	100mgs/Every Other Day (EOD)	100mgs/Every Other Day (EOD)	40mgs/day
2	100mgs/EOD	100mgs/EOD	40mgs/day
3	100mgs/EOD	100mgs/EOD	40mgs/day
4	100mgs/EOD	100mgs/EOD	
5	100mgs/EOD	100mgs/EOD	
6	100mgs/EOD	100mgs/EOD	
7	100mgs/EOD	100mgs/EOD	
8	100mgs/EOD	100mgs/EOD	
9	100mgs/EOD	100mgs/EOD	
10	100mgs/EOD	100mgs/EOD	
11	100mgs/EOD	100mgs/EOD	
12	100mgs/EOD	100mgs/EOD	

Advanced Bulking Cycle

Keep some Letrozole or Arimidex on hand for this cycle, if gynocomastia symptoms develop. This is a very potent bulking cycle, and should be good for a 20lb+ gain even in advanced users.

Week	Testosterone (Cyp or Enan)	Deca-Durabolin	Anadrol50
1	750mgs	500mgs	50mgs/day
2	750mgs	500mgs	50mgs/day
3	750mgs	500mgs	50mgs/day
4	750mgs	500mgs	50mgs/day
5	750mgs	500mgs	50mgs/day
6	750mgs	500mgs	50mgs/day
7	750mgs	500mgs	
8	750mgs	500mgs	
9	750mgs	500mgs	
10	750mgs	500mgs	
11	750mgs	500mgs	
12	750mgs	500mgs	

Advanced Cutting Cycle

As with the cycle above, keep some Letrozole or Arimidex on hand, and use it if gyno symptoms begin…this cycle is what I consider to be the "perfect" cutting cycle. If you start no higher than 15%bodyfat, and you keep your diet and training in check, you will easily get into single digits.

Week	Testosterone Propionate	Trenbolone	Winstrol (oral)	Clenbuterol
1	75mgs/Every other Day	75mgs/Every other Day	25mgs/day	60mcgs/day
2	75mgs/EOD	75mgs/EOD	25mgs/day	60mcgs/day
3	75mgs/EOD	75mgs/EOD	25mgs/day	60mcgs/day +50mgs of Benadryl
4	75mgs/EOD	75mgs/EOD	25mgs/day	60mcgs/day
5	75mgs/EOD	75mgs/EOD	25mgs/day	60mcgs/day+ 50mgs of Benadryl
6	75mgs/EOD	75mgs/EOD	-	60mcgs/day
7	75mgs/EOD	75mgs/EOD	-	60mcgs/day
8	75mgs/EOD	75mgs/EOD	25mgs/day	60mcgs/day
9	75mgs/EOD	75mgs/EOD	25mgs/day	60mcgs/day+50mgs of Benadryl
10	75mgs/EOD	75mgs/EOD	25mgs/day	60mcgs/day
11	75mgs/EOD	75mgs/EOD	25mgs/day	60mcgs/day
12	75mgs/EOD	75mgs/EOD	25mgs/day	60mcgs/day+50mgs of Benadryl

Chapter 8

Remove Steroids in 5 Days

The product discussed below did show to beat steroid drug testing, but we are not in any way promoting this product to be used to purposely beat mandatory or random drug testing for sports or work.

This is going to be one of the shortest chapters in the book, but it will also be one of the most important! Anabolic Steroids can be very toxic to the body and if taken incorrectly or for a long period of time, they can cause some very serious side effects. In the past, if you took steroids and decided that you made a terrible mistake by doing so, or if you just finished up a long cycle and wanted to remove these drugs, you had to let them run through your system and wait for your body to cleanse them out naturally. This process can take up to 18 months or longer and during that time, these steroids can continue to do damage to your body. Well… You don't have to wait any more!

We found a product call the "Steroid Cleanse" by Dynamic Sports Nutrition, Inc. (http://www.SteroidCleanse.com) that claimed to completely remove steroids from your body in only 5 days! Those were some big claims considering that removing steroids other than naturally has never proven to work, so we bought a few bottles to test them out. We took several known steroid users and had them drug tested to see what exactly they had in their system. It would take a few days to receive the results back so we had our subjects continue with the cleanse without knowing exactly what drugs were in their system. After our test subjects gave their urine at a local licensed drug testing facility, we instructed them to immediately stop taking any steroids or drugs they were using and to follow the instructions on the "Steroid Cleanse" bottles to the letter. The cleanse is a 5 day process that requires a clean diet, water or green tea, exercise, and a toilet within 100 yards at any given time. Our test subjects reported no signs of negative reactions to this product other than frequent trips to the bathroom (which is necessary for most cleansing type products).

After we had received the results back from the first drug test, it was clear that they were indeed on several types of popular anabolic steroids. The drugs that were found to be present were:

Nandrolone Decanoate (Deca-Durabolin), Testosterone (they were using Testosterone Cypionate, Propionate, and Enanthate), Drostanolone (Masteron), Methandrostenolone (Dianabol), Oxandrolone (Anavar), and Stanolzolol (Winstrol) were all present.

The steroids listed above are commonly used in many athletes and was a perfect control group to see if this "Steroid Cleanse" really did work. After our test subjects completed the 5 day cleanse, they returned back to the licensed drug testing facility where they gave their last, hopefully cleansed urine samples.

Several days after giving the final urine samples, the drug testing facility called us to let us know the drug tests were in and that we could come pick them up. What we found out was absolutely amazing! **Every single steroid was removed** from our test subjects **except for one** drug, Nandrolone Decanoate (Deca-Durabolin), which the company claimed may not be cleansed to begin with. (A small list of drugs that may not be cleansed can be found at www.steroidcleanse.com)

These tests proved to us that the impossible was now 100% possible. We have found a product that will actually remove these toxins from your body in only 5 days! That is shocking in itself, but we are wondering how this will affect the sports industry now that this product does actually exist? We recommend anyone who wants to remove steroids and other drugs from your system to use the "Steroid Cleanse".

To view the exact same test results we saw, please visit the "Steroid Cleanse" website. We have forwarded our test results to them and have asked them to post them for everyone to see. Please note the last part of the social security number for identification purposes, as well as the date of collection on both the before and after tests.

Completely Cleanse Steroids From Your Body in Just 5 Days!

http://www.SteroidCleanse.com

DRUG

PROFILES

Chapter 9

Drug Profiles

This is obviously going to be the longest chapter of the book, and the most exhaustively researched one. It contains profiles on every major (and minor) pharmaceutical compound in use for bodybuilding, sports, and athletics today. It contains literally hundreds of references and works cited, and I believe this to be the most complete collection of this type of information in the world.

As I said previously, you may, perhaps find some of this information repetitious. If you read the profile on Equipoise and the profile on Methandriol, then I suspect you will find the profile on Drive (a rare Australian blend of Equipoise and Methandriol) to be repetitious. Be that as it may, I have spared no effort to include profiles on drugs such as Drive, even though the compounds which make it up are addressed elsewhere. You will not learn what percentage of Drive is made up by Methandriol land what percentage of it is Equipoise simply by reading the profiles on those two respective drugs. You will not learn how many milligrams of each per milliliter are in Drive by simply reading the profiles on the drugs which make it up. And if you want to have the most complete understanding of steroids and ancillary compounds possible, then you need to know those things. I want you to walk away from reading this book with the most complete knowledge possible, and that has required effort on my part…and now requires effort on yours.

Alot of what we know about a steroid, or at least part of that, is "coded" in it's name *[the part written like this at the start of my profiles]*. If you look in the name of a steroid, and it's something like this:

2-oxy **androstane** 17b-ol 2-one
(Which is the chemical name for Anavar)

See the bold part? That means it's a DHT-derivative, with regards to it's base carbon structure.

If it said:

norandrostene 17b-ol 3-one
(Nandrolone)

Then you know the **norandrostene** part means it's derived from Nandrolone (or if you generally see 19-nor or something like that)

and finally, if you see:

the word testosterone (duh) or **androstene** in the name of the structure, then you know it's derived from testosterone.

Therefore, we have a steroid like Boldenone (Eq), we can figure out a few things about it.

Look at the name:

BOLDENONE
-or-
(17b-ol 1,4-androstadiene-3-one,)
-or-
Equipoise

And what we see is that it starts with "**BOL**" and the chemical name begins with 17b-ol...hence "**BOL**."

See what I'm talking about:

17b-ol 1,4-androstadiene-3-one

Next we see **"DEN"** (because the word is Bol-Den-One if you break it apart). Looking in the middle of Boldenone's chemical name, we find:

17b-ol1,4-**androstadiene**, 3-one

And finally we have **"ONE"** at the end of Boldenone, and clearly, the chemical name also has "One" at the very end:

17b-ol1,4-androstadiene-3-**one**

SO what does all of this tell us? Well, since it starts with **17b-ol** we know that it's got something going on at the 17beta position, which is an "ol" which is a Hydroxy (oxygen and hydrogen) group. This is where our estrification (added ester) at the 17-beta-position goes. Now, we also have the middle part, **androstadiene**, which indicates that this steroid has double carbon bond on the base of a testosterone's steran nucleus or a **di**- bond on **androstene**. In this particular case, the double carbon bond at this position slows aromatization. Eq, as we know, aromatizes to a far lesser degree than testosterone, because of this modification. Remember that androstene, from the beginning of my explanation on all of this, indicates testosterone as a base structure.

Add it all up, and we have Boldenone, which is called Equipoise, from the Latin root of the word Equine, meaning that it has to do with horses...and as you already knew, Equipoise (Eq) was developed to give to horses.

Now, if we look at Eq (boldenone) and compare it to Dianabol (methandrostenolone), we see how similar they are.

Equipoise:

(17b-ol 1,4-androstadiene-3-one,)

And now Dianabol (difference noted in **black/bold**):

(**17a-methyl**-17b-ol 1,4-androstadiene-3-one,)

As you can see, the only difference between Dianabol and Eq is the 17a-Methyl group, which is why Dianabol is called a Methylated steroid; it has been 17-alpha-alkylated to survive oral ingestion.

And this, my friends, should tell us a few things, the first being that we can tell alot from just the names I've used in my profiles...and the second (when you compare the minor difference in names but the major differences in effects concerning Dianabol vs. Eq) is that...names aren't everything.

Now, lets talk about the anabolic:androgenic ratio's...

To determine that ratio, testosterone was given to male winstar mice, and then they were sacrificed (killed), and their levator ani (a leg muscle which was immobilized during the 21 days) is weighed, as well as their ventral prostate.

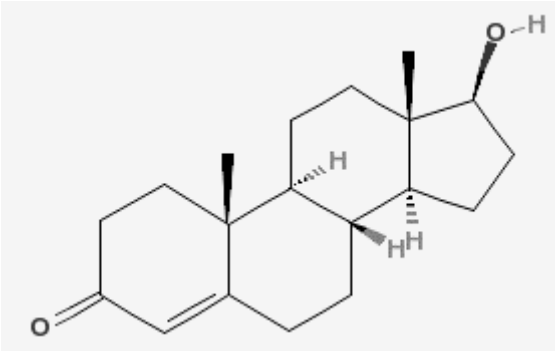
The weight of that (untrained) muscle is the anabolic rating for testosterone , and the weight of the ventral prostate is the androgenic rating. Now other steroids are administered to these rodents, and the weight of their levator ani and ventral prostate, relative to the weights of those rodents from the testosterone group, are that steroid's anabolic:androgenic rating. Testosterone, therefore, has a rating of 100:100, while Trenbolone has a rating of 500:500 (which is the same ratio, relative to itself, but is 5x as anabolic as testosterone and 5x as anabolic).

Again, this isn't a perfect way to give us the exact effects a given compound will have in our bodies...but it's a start. Now, start reading profiles!

Testosterone

Derived Steroids

Testosterone Derived Steroids



As you know, some steroids are derived directly from testosterone, this includes all of the Testosterones (Methyltestosterone, Testosterone Cypionate, Testosterone Propionate, etc…) as well as Boldenone, Methandrostenolone, and Fluoxymesterone, and many more. Below is a partial list of some traits and effects that most, if not all, Testosterone Derived Steroids have attributed to them

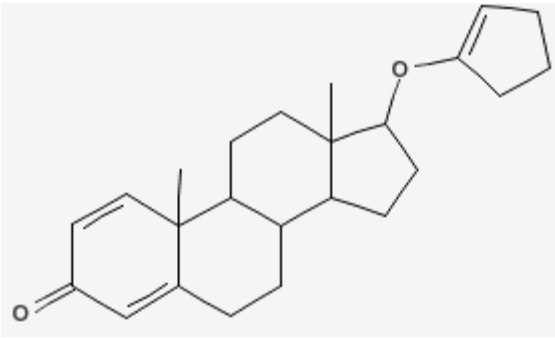
- Excellent Anabolic Properties
- Increased nitrogen retention
- Improved sense of well-being
- Improved Confidence
- Significantly Increased Libido
- Possible improvement of erectile dysfunction
- Conversion to Estrogen (aromatization)
- Possible increased LDL cholesterol
- Possible decreased HDL cholesterol
- Increased aggression
- Increased ability to recover from workouts
- Decreased Cortisol (a catabolic hormone)
- Increased Creatine Phosphate production and utilization
- Increased Lypolysis (fat burning)
- Improved Insulin sensitivity
- Increased Metabolism
- Increased Bone Density

- Increased production of red blood cells
- Conversion to DHT
- Increased growth of body hair
- Possible development of male sexual characteristics in women
- Increased acne
- Inhibition of HPTA

Research Anabolic Steroids
and Related Topics at:

http://www.Steroid.com

Anabolicum Vister



(Boldenone shown with Undeclynate Ester)
(Qunibolone)
[1,4-androstadiene-3-one,17b-ol (+ ester 17beta-(1-Cyclopenten-1-yloxy)]
Molecular Formula (of Base): C19H26O2
Molecular Formula (of Ester):N/A
Molecular Weight (of Base): 286.4132
Molecular Weight (of Ester): 352.5156
Melting Point:N/A
Manufacturer: Parke Davis (Discontinued)
Effective Dose(men): 100-200mgs/day
Effective Dose (women): 50-100mgs/day
Active Life: less than 8-12 hours
Detection Time:2-3 months
Anabolic/Androgenic Ratio: 100:50

Unfortunately, Anabolicum Vister (Quinbolone) wasn't very popular in the United States, and most of the research on it was written in Italian. Why is that important? Well, most of the research on it is written in Italian. I'm one of those guys who doesn't even like to read the menu out loud at an Italian restaurant I usually have to point at the item I want to avoid looking too stupid.

Anabolicum Vister is yet another attempt at creating a steroid with the basic idea of altering the Methandrostenolone/Boldenone structure. As we already know, Equipoise (Boldenone) is basically a non-17alpha alkylated version of Dianabol, with an Undeclynate ester added. What we're looking at in Anabolicum Vister (Quinbolone) is basically Eq or Boldenone but with a cyclopentenyl ester at the 17-alpha position to increase its lipophillicity, in lieu of the undeclynate ester found in Eq. It's yet another attempt at a non-toxic oral anabolic like Andriol, and it used a similar delivery system. It was sealed in an oil-filled capsule, so that the oil could be absorbed by the lymphatic system just like it is with Andriol and thus it could by-pass the liver and avoid being broken down that way, which is how most oral steroids (the 17-alpha-alklyated ones) are. Your lymphatic system is a bunch of veins and arteries that can only absorb water, the idea behind Anabolicum Vister takes advantage of this state of affairs.

Anyway, as you may have heard, using the lymphatic system as a delivery vehicle for steroids is very problematic. Blood levels are all over the place (6)(9), and in some people it seemed as if most of the time it didn't metabolize properly at all. Therefore, as with Andriol, effective doses of this steroid are necessarily high. Originally, each capsule had 10 mg of quinbolone, and you needed to take 10-20caps

mg to get any kind of decent anabolic effect (9)(5)(4). Remember, we're talking about oral EQ here, so you're better off with just shooting some nice Stark brand Eq (or Ganabol, or whatever you happen to like). While you won't get any benefits with Anabolicum Vister over regular Eq, it will basically do all of the same things Eq will. This stuff will help you lose a bit of fat (4)(5), will increase strength and muscle (5), and also (as Eq is noted for) increase red blood cell production (2). The kicker, for me, is that this drug was given a new name, Quinbolone, while it's basically just boldenone cyclopentenyl. That's just idiotic.

As we already know from the properties of the Boldenone base, this is a particularly safe steroid. Anabolicum Vister is not liver toxic (8), and has little or no interaction with the 5AR enzyme (6), so it doesn't really form much of the more androgenic metabolite Dihydroboldenone. We also know that it has only half the ability to interact with aromatase as testosterone, so it won't convert too much estrogen. Unlike it's brother, Methandrostenolone (dbol), it doesn't have the structural alteration of the 17-alpha-methyl group that makes it form a more potent estrogen (6).

What we have here (although it has been discontinued) is basically oral Eq, which requires too many caps per day to be cost effective over injectable Eq, but nonetheless may be an interesting drug if a underground lab starts producing some. The original company that made it has, sadly, stopped doing so.

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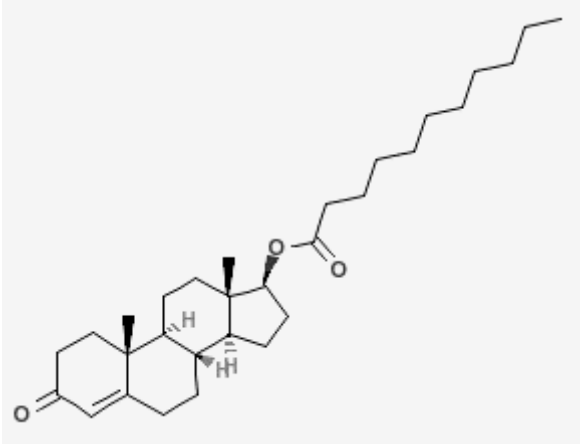
Andriol



(Testosterone shown with Undecanoate ester)
(Testosterone + Undecanoate ester)
[Androsta-4-en-3-one, 17b-ol]
Formula: C19 H28 O2
Molecular weight of base: 288.429
Molecular weight of ester: 186.2936
Melting Point: 155
Manufacturer: Organon
Effective dose: 600mgs
Active Life: less than 8-12 hours
Detection Time: 4-5 weeks
Anabolic/Androgenic Ratio: 100:100

Andriol is testosterone with the undecanoate ester attached, and produced in oral form. It represents the first real attempt to create an oral testosterone since Methyltestosterone. I can only assume that the scientists responsible for this wanted to create a viable alternative to both injectable testosterones (which, at least for Hormone Replacement Therapy, is inconvenient), as well as other oral forms of testosterone (which have traditionally been very harsh on the liver). What they came up with has proven to be a very odd steroid in many ways.

To create Andriol, the scientists involved had to come up with a solution to the problems facing methyltestosterone, namely the fact that it is harsh on the liver and needs to be taken in very high doses to produce decent results. What they did was put 40mgs of Testosterone Undecanoate in oleic acid (an oil), and encapsulate it. Now they use castor oil and propylene glycol laurate instead of oleic acid, but that only increases the shelf life, and doesn't do anything else. For some of the aspiring chemists reading this, you may be asking yourself the obvious question. And the answer is yes, you can take almost any estrified drug (Nandrolone Decanoate, for example), and dissolve it in castor oil and propelyne glycol laurate, and create your own "Deca Caps" or whatever. The problem is that you'd need to be able to make sealed gel caps, not just the typical 2-part capsules most people throw steroid powder in. Anyway, I'm digressing; lets get back to Andriol. After you put some testosterone undecanoate in caster oil and propelyne glycol laurate, you'll have a testosterone which is highly fat-soluble due to the (very large) undecanoate ester

attached to it, and able to be absorbed through your small intestine via the lymphatic system. What this means is that it avoids the "first pass" through the liver, a process which could destroy much of the active steroid, and place an undue amount of stress on the liver. It also displayed a rapid absorption and turnover in one study (11), which may account for its ability to not cause unwanted side effects. It's not bad for your blood pressure (13), and also has no adverse effects on the prostate and may even improve blood pressure (12)! Thus, Andriol is remarkably light on all side effects, especially those related to liver toxicity and estrogenic sides. In this study, done with women, it even displayed no ability to lower LH and FSH (Leutenizing Hormone and Follicle Stimulating Hormone, respectively), which are the hormones that tell your body to make more testosterone (11). I doubt Andriol could be properly regarded as liver toxic or too damaging to your HPTA (Hypothalamus-Pituitary-Testicular-Axis, the thing that governs your body's production of testosterone, among other things), at any kind of reasonable (or even excessive) dose. Actually, one study noted no adverse reactions or effects at all with the use of Andriol (10). As for your lipid profile and cholesterol, it has even been shown to have beneficial effects on them (14)!

So, putting some Testosterone Undecanoate in Gel Caps is what the scientists at Organon have done with their Andriol product, and it all looks good so far, right? The active steroid totally bypasses your liver and hence doesn't get damaged by or damage your liver, and gets a bunch of Testosterone into your body. Great! But what happens next? Well, after the lymphatic system has brought the testosterone undecanoate into circulation in your body, the undecanoate ester begins to be removed. This would leave you with (roughly) 25mgs of testosterone in your blood stream, as the decanoate ester takes up a lot of "space" and the cap only contains a total of 40mgs of testosterone undecanoate (roughly 15mgs of which are ester). The end results from Andriol would be very similar to the end result of injecting almost any form of testosterone (4), once your body removes the ester. But remember, you'd never inject 25mgs of testosterone suspension and call it a day, but that's exactly what you are doing when you take only one Andriol cap.

So now you have 25mgs of testosterone floating around in your body. That's not much, so if you're realistically considering using this product, you'll need to take quite a few caps of it. And there's one of the first problems we encounter with this drug. You see, the method of administration of this drug provides us with a nice liver-safe product, but this stuff will peak your testosterone levels within around 2 hours after administration, and will only remain (at least slightly) elevated for 10 or so hours (1). Ideally, you'd be taking a capsule every 2 hours, which is inconvenient to say the least. Let's be generous and say you can simply take one every 4 hours. Problem solved? Not really, because we're going to need to take at least 2 caps with each dose if we want to see any sort of anabolic effect, and if we're taking it every 4 hours (assuming we're awake for 16hrs every day), then we'll be taking around 8 caps per day. Now we've shifted the problem away from the effort needed to take an effective does to being a problem with economics. The problem with this type of dose is going to be cost. Andriol is pretty expensive to be taking in the amount of 8 caps per day, and I have never seen it made by anyone except for Organon, which means we won't find it on any UnderGround Labs product lists. That means we need to pay whatever price Organon is asking, and they are asking a lot. You can easily run a cycle with several anabolic compounds for the price of a cycle of just Andriol.

So that's our major obstacle, the expense of taking Andriol in what would be an effective dose is prohibitive to most people. One study noted that Andriol therapy,

when compared with traditional Testosterone injections is roughly 7-8x more expensive (5).

Cost notwithstanding; let's see what kind of results we can expect from Andriol (besides the catabolic effect it will have on your wallet). Although it has a reputation for being very mild, you'll still see some results from Andriol. One study using a very low dose on adolescent boys still showed a reasonable gain in Fat Free Mass (3) even though the boys were not training. Another study focusing on the elderly, improved their quality of life considerably (as androgens often do) (6), and also had beneficial effects on erectile dysfunction (7). This is certainly promising, but in a world where first time-ste In fact, it may even be a useful adjunct with Viagra for this purpose (8). However, in a world where first time steroid users expect upwards of 20lbs per cycle, I would suspect many will be disappointed with the 5lbs or so a cycle of Andriol will produce. Granted, that's a conservative estimate, but I can't really be confident predicting much more muscle is to be expected from Andriol. Taking a large amount of Andriol is actually pretty safe (except for your bank account), and there was even a 3 month study done in Korea, where a pretty small dose of Andriol (160 mg daily for 3 weeks then half that dose for the remainder of the study) resulted in a very nice rise in testosterone. Serum total testosterone increased from 2.13 +/- 1.20 ng/ml at baseline to 6.04 +/- 3.08 ng/ml ($p = 0.005$) after 12 weeks. In addition, free testosterone was (barely) significantly changed from 8.60 +/- 2.25 pg/ml to 11.40 +/- 3.81 pg/ml ($p = 0.13$) (10). However, there were no significant changes in liver function tests, red blood cell count or lipid profiles, nor were there any significant adverse reactions that would have led to the cessation of the administration of oral testosterone. So the scientists at Organon have succeeded in making a nice, safe, moderately effective, orally available treatment for low androgen levels. But can we (athletes and bodybuilders) use it also?

Truthfully, I can't be confident predicting more than a 5lbs gain with the use of Andriol, because this product has a very odd property, and that is the widely varying effects it has on test subjects. In one study I read, four test subjects were each given Andriol, and one had a huge surge in testosterone levels going up to 60.1nmol/L and the other only had a 11.5nmol/L level (5)! The remaining 2 test subjects fell in between those levels. I am speculating that the differences experienced by the test subjects were primarily due to the variances inherent in the lymphatic system. But to make matters even more inconsistent, there is no evidence that those variances wouldn't occur within the same person taking Andriol (i.e. you get a huge surge in testosterone one day, and a very minor one the next day). This may be associated with whether this stuff is taken with food or not. Since it operates via association with your small intestine and lymphatic pathways, taking it with food greatly enhances its bioavailability (9). This may be a case of "problem solved," but I'm hesitant to close the books on andriol's absorbtion problems so quickly. For now, we'll just say you are spending your money much more wisely if you take your andriol with meals.

Despite all of its problems, if I had the money to run 10-15 caps of Andriol/day and if I were looking for a stand-alone oral compound to safely run for a full cycle, (of perhaps 12 weeks) then I have to admit, Andriol would be my #1 choice. Testosterone undecanoate may also offer a viable alternative for androgen treatment in women.

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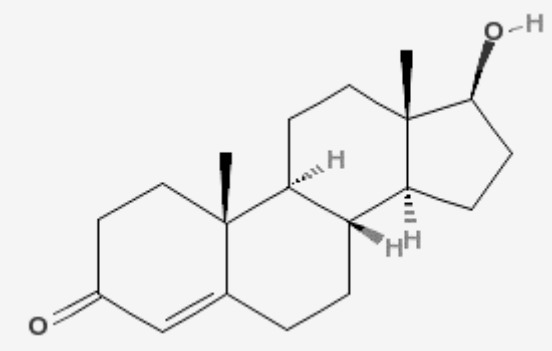
Androderm & Androgel



(Transdermal Testosterone)

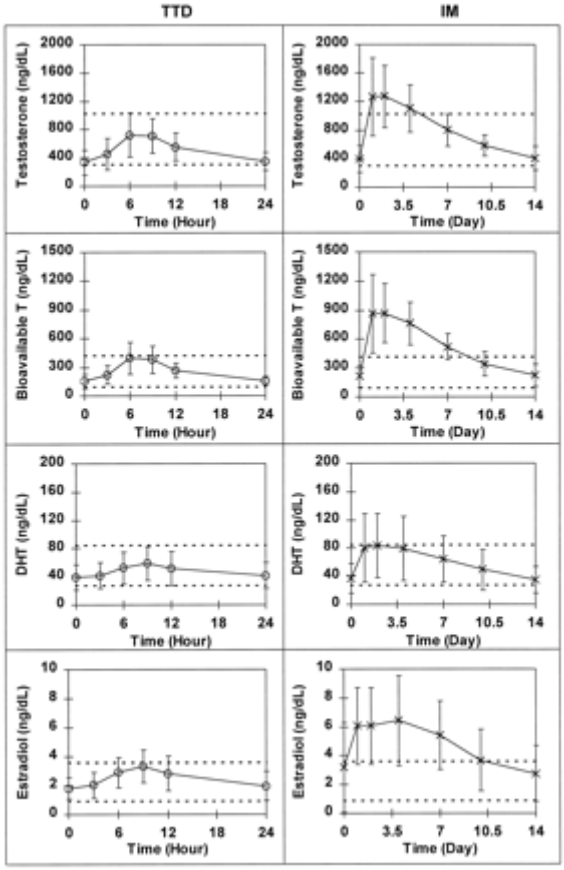
Transdermal Testosterone has been marketed heavily in the Hormone Replacement Therapy Market for the last decade. For over 50 years, testosterone therapy has been used for the treatment of hypogonadism. In recent years, there has been an increase in the use of testosterone therapy for men with late-onset hypogonadism, sometimes referred to as andropause. Testosterone therapy in older and hypogonadic men can significantly improve their sense of well-being, and lead to increases in muscle and bone mass, upper body strength, virility, and libido (5). Oral delivery of unmodified testosterone is not really a viable option, due to its rapid first-pass metabolism, possible liver toxicity, and its relatively short half-life. Thus, injectable testosterone was used for a very long time as an effective hormone replacement method. Roughly a decade ago, alternatives to injectable and oral testosterone were developed. Originally, these alternative methods of application for testosterone meant shaving an area of the skin's surface (*usually the scrotum, no, really) and attaching a testosterone patch with low, dry heat like a hairdryer, which basically hot-glued the testosterone patch to the scrotum. I can't see, for the life of me, the logic employed by the doctor who thought this method was preferable to weekly or twice-monthly injections. Luckily, this painful procedure progressed to the point where its at now, you can simply apply a self sticking patch or rub some testosterone gel anywhere on your body, and get the same effect. Recently, the BALCO scandal featured many references to the gel method. I think, for an adequate understanding of these types of products, we're going to have to take a look at both the drug (testosterone) as well as the method of administration (transdermal delivery), and see how they work together, and how they compare with testosterone injections.

When some (nonscrotal) transdermal testosterone preparations were examined, they showed that the plasma concentration of TS increased very rapidly, and reached the peak level within 3-6 hours of the application of the experimental patch.(2) This is comparable with some of the better oral products out there. In my experience, an athlete would usually swallow a pill rather than have a patch hanging on them for a day.

Basically, you can expect all of the benefits of injectable testosterone with the transdermals (if the mg doses were the same…which they are not). What we're dealing with here is Androderm, which is a patch containing 12.2mgs of testosterone and androgel, which gives you about the same (you only get 10% of the total drug

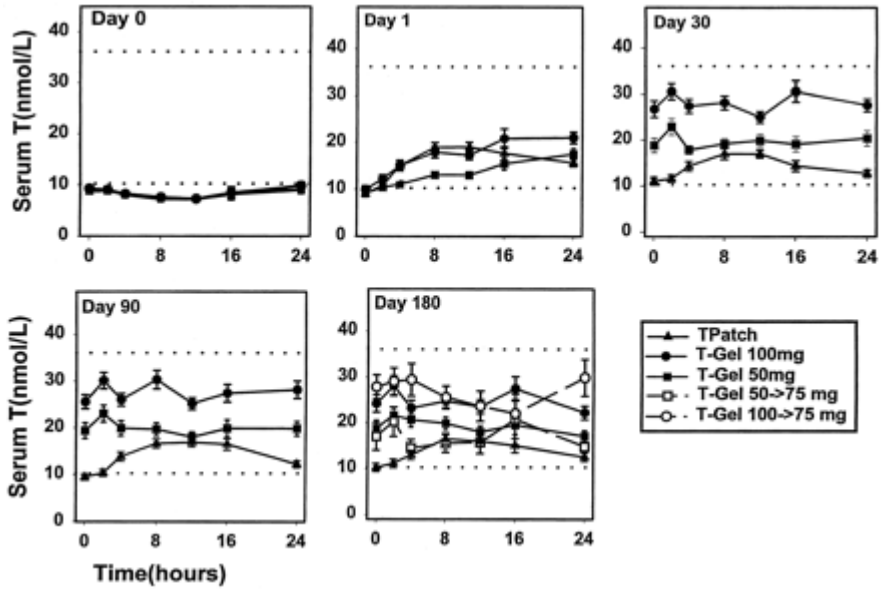
contained in the preparation....thus a hundred mgs of test in a gel form, would yield a 10mg amount in your body).

Here's a chart comparing a transdermal with an injectable, both using testosterone:



Steady-state pharmacokinetic profiles of T, BT, DHT, and E2 profiles during nightly applications of TTD systems (n = 27; , left panels) and biweekly IM injections of T enanthate (n = 29; X, right panels) measured at week 16. Dashed lines denote upper and lower limits of normal range based on morning serum samples (T, 306–1031 ng/dL; BT, 92–420 ng/dL; DHT, 28–85 ng/dL; E2, 0.9–3.6 ng/dL). Error bars denote ± SD.(1)

Not so great, huh? A mere 100mg shot of injectable testosterone provides much higher peak plasma concentrations of testosterone, even though the transdermal testosterone was more stable, with regards to blood plasma levels. So what are the advantages of transdermal application? Clearly, it provides a very stable blood level of the compound administered. I know it seems like I'm killing you with charts, but take a look at this one:



Serum T concentrations (mean ± SE) before (day 0) and after transdermal T applications on days 1, 30, 90, and 180. Time 0 h was 0800 h, when blood sampling usually began. On day 90, the dose in the subjects applying T gel 50 or 100 was up- or down-titrated if their preapplication serum T levels were below or above the normal adult male range, respectively. In this and subsequent figures the dotted lines denote the adult male normal range, and the dashed lines and open symbols represent subjects whose T gel dose were adjusted.

So it's consistent, but who cares? The levels of testosterone it gives us are just enough to provide a slight boost, at a high (financial) cost. Wouldn't it be great if we could get this stuff dosed more highly? Or maybe even with Clen, so we could apply it directly to fatty areas? Or with Tren? That would be great, huh? It would even have potential for first time needle-phobic steroid users to use items which were formerly only available as an injectable! Women could use a Tren product without leaving needle marks! In fact, with a little creativity, underground Labs could even make transdermal products which would never get caught by customs (perhaps disguised as stickers or whatever).

Anyway, I guess that's not in the cards. Let's move on.

One particularly successful transdermal testosterone delivery method involves the combination of DuroTak 87-2510 as an adhesive polymer. This is combined with 3% dodecylamine and 10% span 80. This, combined with testosterone creates a nice transdermal delivery system (4). Another experimental transdermal testosterone preparation contains occlusion, octisalate (OS), and propylene glycol (PG), called Solugel (which is a proprietary hydrogel containing PG 25% w/w) and Tegaderm (a semipermeable film dressing) on the permeation of TES was assessed. Occlusion had no effect on the permeation of TES, however, OS increased the flux of TES 2.9-fold. The concentration of PG which produced optimal TES flux was 20% v/v, and this concentration resulted in a 1.9-fold increase in TES permeation. By combining OS, PG, and occlusion, transdermal testosterone permeation through the skin was increased 8.7-fold, which was a synergistic enhancement, obviously…meaning the sum of the parts was far more than their individual totals (3). Why did I bother

telling you all of the ingredients, which can easily be found at a chemical supply house, and bought legally? Not so, you could make your own transdermal preparations of testosterone (or Tren, or clen, or whatever)…that would be illegal. Even though you now know the ingredients, and could just make a gel with them and some testosterone (or tren, from Finaplex pellets), and create your own transdermal drug delivery product. That would be wrong…

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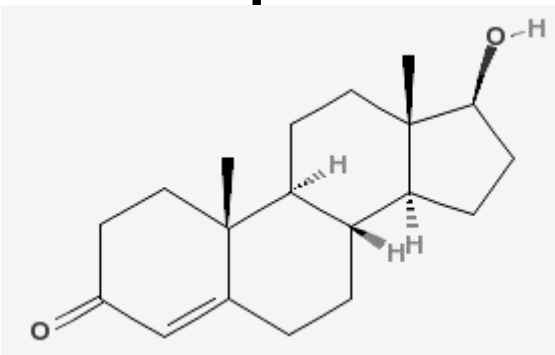
Andropen 275



(Testosterone shown without esters)
(Testosterone + 5 esters)
[4-androstene-3-one,17beta-ol]
Formula (base): C19 H28 O2
Formula of Acetate ester: C2 H4 O2
Formula of Propionate ester: C3H6O2
Formula of Phenylpropionate ester:C9 H10 O2
Formula of Cypionate ester: C8 H14 O2
Formula of Decanoate ester: C10 H20 O2
Molecular Weight of base: 288.429
Molecular Weight of Acetate ester: 60.0524
Molecular Weight of Propionate ester: 74.0792
Molecular Weight of Phenylpropionate ester: 150.174
Molecular Weight of Cypionate ester: 132.1184
Molecular Weight of Decanoate ester: 172.2668
Manufacturer: British Dragon
Effective dose (injectable): (Men) 550mgs-1,100mgs+/week
Active Life: 14 days
Detection Time: 3 months (projected)
Anabolic/Androgenic Ratio:100:100

Andropen is a five-ester blend of testosterone produced by British Dragon, and is clearly an attempt to profit off of the popularity of Sustanon. Actually, if you are inclined to use blended products such as this (and personally, I'm not anymore), then I think you'll find this to be a product far superior to Sustanon.

Andropen contains 20mgs of Testosterone Acetate, 75mgs of Testosterone Cypionate, 90mgs of Testosterone Decanoate, and 40mgs each of Testosterone Propionate and Phenylpropionate in a 20ml bottle. I am very impressed with the fact that this product appears to be designed specifically for bodybuilders and athletes, and certainly if I wanted to create a long, medium, and short estered testosterone product, it would be something like this one. Also, due to that fact, I think I'd recommend shooting it EOD, or E3D or so….giving you a very decent and relatively stable level of hormone in your body. A few years back, I made a testosterone blend for my own use out of powders, which was essentially a five estered testosterone (the same esters as Sust + 100mgs of test with the Cypionate ester per milliliter). Anyway, now it seems that every Underground Lab is involved with this type of thing. It's not uncommon to see a price list with several "custom blends" or "house blends" of various estered testosterones (or sometimes Trenbolones, or whatever).

Testosterone is a relatively cheap drug (the cheapest, actually, in terms of anabolics), and that's why it's not actually a bad choice for blended products. In terms of "bang for the buck", it's a great choice, as it can do just about everything. It induces changes in both the shape as well as size as muscle fibers (1). It can change the appearance and the number of muscle fibers (1), which is definitely a good thing for the cosmetic athlete (read: bodybuilder). Testosterone has the profound ability to protect your muscle from catabolic (muscle wasting) glucocorticoid hormones(2), although not as well as Tren or other such (more expensive) drugs. Glucocorticoid hormones send a message to muscle cells to release stored protein, while Testosterone sends a message to muscle cells to store more contractile protein (called actin and myosin). In this way, these two hormones are at war with each other to cause anabolic vs. catabolic effects. Usually they are at a stalemate (which is why you don't gain weight constantly, nor lose it). When you add in some Testosterone (such as Andropen275), you shift the scales in favor of anabolism, and away from catabolism. In addition to this, Testosterone has the ability to increase erythropoiesis (red blood cell production) in your kidneys(3), and a higher Red Blood Cell (RBC) count is highly sought after by many athletes because it may improve endurance via better oxygenated blood. More RBCs can also improve recovery from strenuous physical activity, and seems to give the muscles a more "full" look when bodyfat levels are reasonably low. Agression levels often rise dramatically with the use of exogenous testosterone (9), and due to some of the short esters in Andropen275, I'd expect this effect to become realized within the first day of injection.

All of these great benefits are to be had with the use of test enth alone, but realistically, it will be part of a cycle containing one or more other drugs. People who are bulking will probably choose Deca or Eq (possibly with Dbol as well) and those who are cutting will probably steer towards Eq and perhaps Trenbolone. Very often users will shoot this drug once or twice a week, but blood levels are still above baseline with this drug at around day eight (10).Common wisdom holds that the testosterone portion of any such cycle should be equal to or greater than any other injectable drug(s) portion (on a mg basis). I believe that you can get away with less, but in general, this is a good guideline.

The real advantage to this product, in my opinion, over Sustanon is in it's practicality. As you know, I'm not a huge fan of multi-estered products, because it seems that this gives the manufacturer carte blanche to charge whatever they want. Well, this product costs roughly $150, for a 20ml, multi use vial. When compared to buying Sustanon by the amp, you could be paying up to $50 more for the same amount of testosterone. If you are looking for a product of this nature, this is one that I would actually recommend.

This product should provide less of the watery "bloated look" that an equal amount of (for example) testosterone cypionate would give, but more than you'd get with testosterone propionate. This makes it a possible choice for use in either a bulking or cutting cycle, or the ever popular "lean mass" cycle we're seeing lately, on Steroid.com. Of course, the usual side effects experienced with any testosterone use would be expected with this product: Acne, water-retention, gyno, etc… And so would all of the positive effects we use testosterone for: muscle gain, fat loss, strength gain, etc…

Really, as I've said numerous times, the one principal drawback to using blends of testosterone tends to be their high cost as compared with single ester tests. If this product could be had cheaply, I wouldn't hesitate to recommend it.

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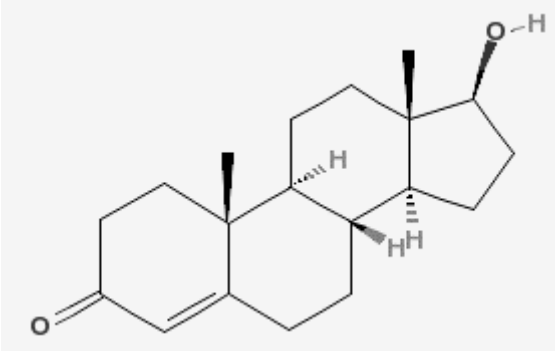
Deposterona



(Testosterone shown without esters)
(Testosterone + 3 esters)
[17b-hydroxy-4-androsten-3-one]
Formula (base): C27 H40 O3
Formula Esters
Acetate: C2 H4 O2
Valerate; C5 H10 O2
Undecanoate: C11 H22 O2
Molecular Weight(base): 288.429
Molecular Weight Esters
Acetate: 60.0524
Valerate:102.13
Undecanoate: 186.2936
Melting Point (base): 155°C
Manufacturer: Ft. Dodge
Effective Dose (Men): 400-600mgs/week
Active life: 15-16 days
Detection Time: Up to 3 months
Anabolic/Androgenic ratio: 100:100

This is actually a very interesting compound as far as testosterone blends go. It's produced by Ft.Dodge, which has a good reputation for quality. I think I'm going to go against the grain here (shocking, huh?) and say that this is the only testosterone I would have absolutely no problem recommending to women. A quick look at its low concentration will show us why:

Testosterone Acetate: 12mgs
Testosterone Valerate: 12mgs
Testosterone Undecanoate: 36mgs

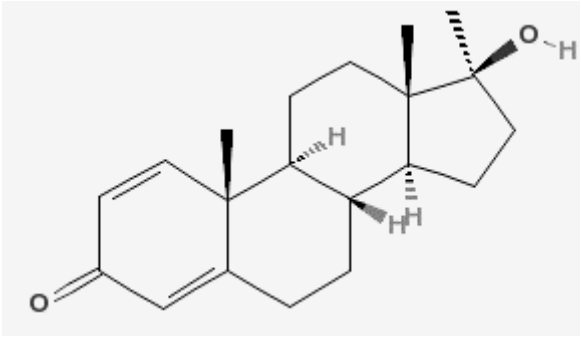
(For a total of 60mgs of testosterone per ml)

So what we basically have here is a blend of short and long esters, in a very low concentration. I'll go out on a limb and say that your average athlete won't be thrilled with shooting a bottle of this stuff per week. See, it comes packaged as a 10ml vial, in boxes of 12, and you can even buy a case of a "dozen dozen" (a dozen boxes with a dozen 10ml vials each) aka a gross (144 bottles). This is a great buy, as you're getting it for way less than a grand, and its quite a bit of testosterone. The

problem is that you need to shoot a bottle per week to get a nice dose of it, but it's not too bad if you are using something like Tren A or Masteron with it (and need to shoot frequently anyway).

A novel use of this may be for a 1x a week (or even every other week) injection for female athletes daring enough to try testosterone, or even for use in diluting painful underground gear. I can imagine that using this with Andropen275 or T400 may be a very viable route for those wishing to ease the pain of those shots and perhaps create some kind of Frankenstein's monster blend of testosterone esters within your syringe.

Dianabol



(Methandrostenolone)
[17a-methyl-17b-hydroxy-1,4-androstadien-3-one]
Formula: C20H28O2
Molecular Weight: 300.44
Melting Point: N/A
Manufacturer: Ciba (originally)
Release Date: 1956
Effective dose: 25-50mgs (as low as 10 and as high as 100 have been reported)
Active Life: 6-8hours
Detection Time: up to 6 weeks
Anabolic/Androgenic Ratio (Range): 90-210:40-60
Dianabol (Methandrostenolone)

This was more or less the second Anabolic Steroid ever produced. The first, as we all know was Testosterone, which was produced in the early 1900's and experimented with by Nazi's in WW2, in an attempt to produce a better soldier. Russian athletes in the 1953 World Championships as well as the Olympic games then used testosterone with great success. After that, John Zeigler, who was a doctor working with the US Weightlifting Team, began a cooperative project with Ciba to develop an equalizer for US atheletes. Flash forward to 1956 and enter Dianabol; the original trade name for Ciba's Methandrostenolone... but called "Dbol" by athletes. The original package insert said that 10mgs/day was enough to provide full androgen replacement for a man, and Dr.Zeigler recommended that athletes take 5-10mgs/day. Incidentally, this is also the dose that Bodybuilders were reputed to take from then until roughly the 1970's. Yeah, this was allegedly Arnold's dose, Zane's dose, etc. simply stacked with some testosterone. (For any trivia buffs out there, Dan Duchaine's mail order steroid business operated under the name "The John Zeigler Fan Club").

Enough with the history lesson, lets get into what this stuff is, and what it does. Well, first off, it's usually found in pill form, though it can be found as an injectable also (Under the Trade name: Reforvit-B, which is 25mgs of methandrostenolone mixed with B-vitamins). It is a 17aa steroid, which means it has been altered at the 17th Carbon position to survive its' first pass through your liver, and make it into your blood stream. It'll raise your blood pressure (4) and is hepatoxic (Liver-Toxic), so be careful with it. Although I have known people to take up to 100mgs/day of this stuff and not suffer any ill-effects, one study looked at that exact dose, and the

people involved didn't suffer any intolerable side effects (7). Lets examine this particular study a bit further, though:

In this study, done in the early 80's, a very high dose of Dbol (100mgs/day for 6 weeks) decreased plasma testosterone to about 40% of it's normal value, plasma GH went up about a third, LH dropped to about 80% of it's original value, and FSH went down about a third also (these are all approximate numbers, for the sake of brevity, but you get the idea). Bodyfat did not go up significantly and Fat Free Mass went up anywhere between 2-7kgs (3.3kgs average gain). The researchers concluded that Dbol increases Fat Free Mass as well as strength and performance. I can only agree, finding this to be the case when I did my first cycle (which was 6 weeks of dbol alone at 25mgs/day). I gained roughly 25lbs and kept nearly ½ of it. Since then, Dbol has always had a special place in my heart.

As with many other 17aa steroids, Dbol is also a very weak binder to the Androgen Receptor, so most of it's effects are thought to be non-receptor mediated, and are attributable to other mechanisms (i.e. protein synthesis as inticated by the production of muscle tissue with very high levels of nitrogen, etc. which was indicated in the 100mg/day study). In fact, much of its anabolic effect may be from GH secretion following administration. When Dbol was administered to rats whose pituitary glands had been removed, it actually demonstrated zero anabolic effects (6). Therefore, GH secretion must be a large part of its anabolic activity. Also, it has only had a modest aromatase activity so estrogen doesn't cause water gain on Dbol, rather (maybe) GH does. This structure also means it only has a modest aromatase activity (2).

When Steroid.com members were polled on their results from Dianabol, an overwhelming majority of them were happy with the result gained from Dianabol and only 10% were dissatisfied. Dianabol has been, and will continue to be, one the most popular oral steroids for gaining mass and strength.

How strong is Dbol? Well, on an mg for mg basis, most people agree that it's stronger than A50. The reason most people don't get the same gains off of Dbol is that almost nobody takes equivalent doses (I mean, I've heard of people taking 150mgs of A50, but not Dbol, although the Dbol would probably provide more solid gains and be less toxic, I suspect).

So how do we incorporate this stuff into our AAS regimen? Clearly, the inclusion of Dbol at any point in a cycle would contribute to gains; however, I'd speculate that Dbol is most regularly used for 2 reasons:

1. At the start of a cycle to "Kick Start" gains
2. As a "Bridge" between cycles to maintain gains

Let's examine these two uses.

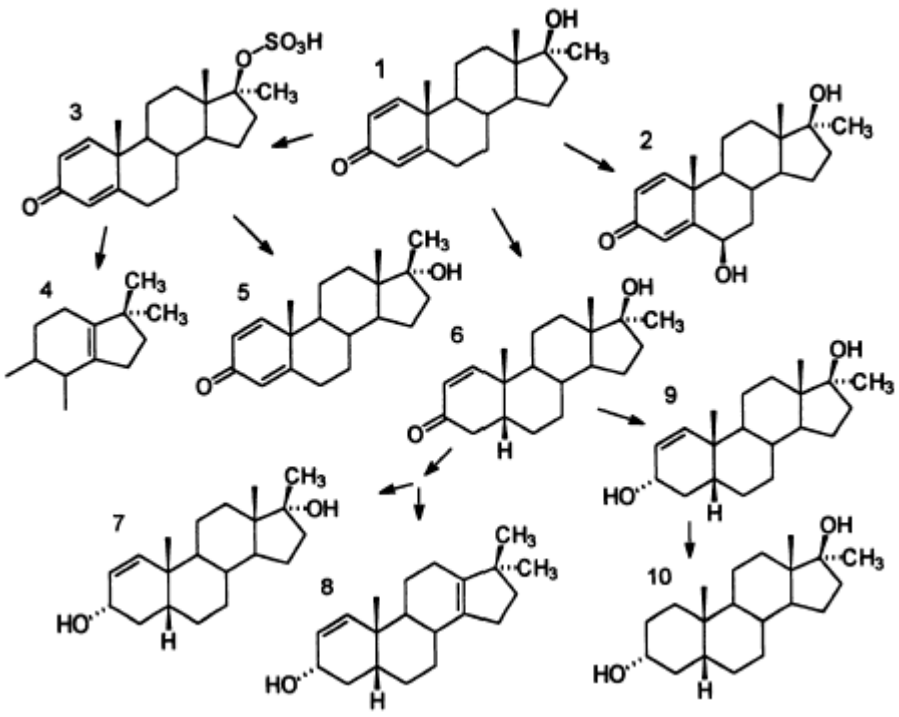
In order to kick start a cycle, usually what you do is incorporate a fast acting oral like dianabol (or anadrol) and combine it with long acting injectables (such as Deca or Eq with some Testosterone). The reasoning here is that the oral (Dbol in this case) will give almost immediate results, while the injectable takes time to produce results. The end result is that you start seeing results within the first week of your cycle and continue up until the end with the injectables. This entails taking anywhere from 25-50mgs of dbol (although as little as 20mgs or as much as 100mgs have been

reported) for 3-6 weeks at the start of a cycle (average time for a "Kick Start" is 4 weeks, though) and then ceasing their use as the injectables start to produce results.

In order to successfully bridge between cycles, (and this means using a low dose of AAS, in this case dbol) you need to recover your natural hormonal levels to pre-cycle levels or to within acceptable parameters, and then you start your next cycle. The idea here is that you won't lose any gains, but rather a low dose of an AAS will help you maintain them. Typically, you'd use around 10mgs/day of dbol and combine it with an aggressive Post-Cycle Therapy (PCT) course of Nolvadex (and/or Clomid) and HCG. This would give you full androgen replacement from the Dbol and a shot at recovering your natural hormonal levels via the other stuff you are taking. Remember, the 100mg/day dose of dbol in the study we looked at earlier did not suppress Test, LH, or FSH to a degree that would make recovery impossible; And it certainly can not with 1/10th that dose in conjunction with an aggressive PCT.

All in all, this is a very good drug, and a potent tool for quick gains or retaining gains when used properly and safely.

Here's how your body metabolizes Methandrostenolone:



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2. Brain Res. 1998 May 11;792(2):271-6.

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10. Acta Med Acad Sci Hung. 1975;32(1):27-34
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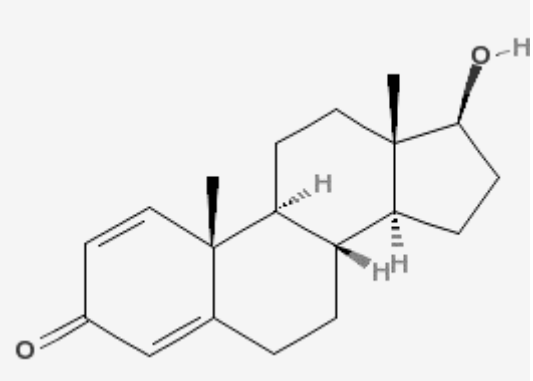
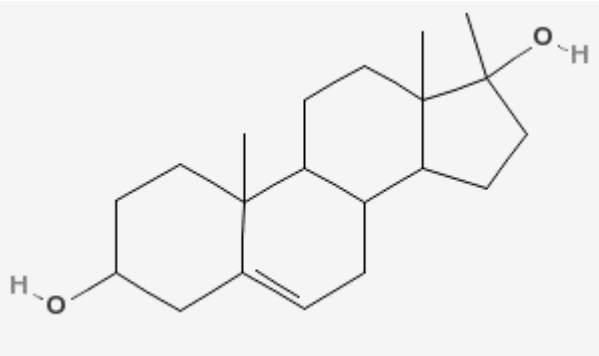
Drive

(Methandriol and Boldenone shown without esters)
(Methandriol + Boldenone Undeclynate)
(aka Methylandrostenediol)
[17a-Methyl-5-androstene-3B,17B-diol]
Formula: C20 H32 O2
Molecular Weight: 304.4716
Manufacturer: Various
Effective Dose (Men): 30-50mg orally (daily)/ 300-500mg injectable (weekly)
Effective Dose (Women):
Active life: 2-3 days
Detection Time: 6 weeks
Anabolic/Androgenic ratio: 30-60/20-60

Boldenone Undeclynate
(1,4-androstadiene-3-one,17b-ol)
Formula (base):C19 H26 O2
Molecular Weight(base): 286.4132
Molecular Weight (ester): 186.2936
Manufacturer: Various
Effective Dose (Men): 200-600mgs/week
Effective Dose (Women): 50-100mgs/week
Active life: 15 days
Detection Time: Up to 5 months
Anabolic/ Androgenic ratio: 100:50

Drive is a steroid that got a lot of press time about a decade ago when MuscleMedia2000 printed their now infamous interview with "Bodybuilder X."
In that article, BodybuilderX referred to Drive as a steroid that increases the effectiveness of any other steroids used in a cycle. This isn't really true, and Drive is simply a combination of Boldenone and Methandriol. Let's review Equipoise first. First of all, it slows aromatization, (conversion into estrogen) and the best estimate is that it does so at roughly half the rate of testosterone. Athletes almost never report estrogenic side effects with Eq, even when the dose is up to a gram per week. In women, virilization (development of male sexual characteristics) is not common and is actually almost never seen with this compound when reasonable doses are used by female athletes. This is one of the few injectable compounds that could be

successfully be used by female athletes and bodybuilders and isn't often faked. Primo, Anavar, etc…are usually faked on the black market.

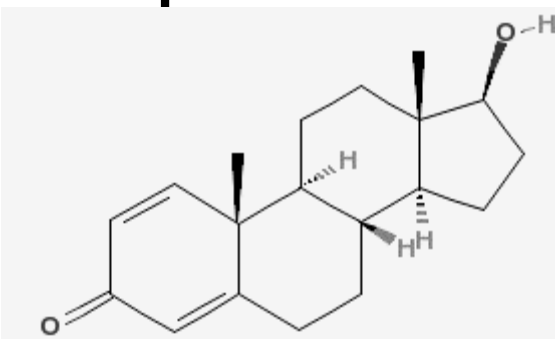
The 5-AR enzyme converts a small amount of Boldenone into Dihydroboldenone (DHB) which is a very potent androgen. A rare, yet beneficial occurance taook place because DHB (sold under the name 1-Testosterone for awhile) turned out to be a very effective anabolic while it was legally available on the market. As I said before, such a small amount of it is converted that it's really of no concern or benefit to most athletes taking Eq.

One of the most pronounced effects in Eq is its ability to raise your RBC's (red blood cells). This is very typical of anabolics; however, Eq would appear to do it to a slightly greater degree than mostIt's probably the most versatile injectable compound, next to testosterone.

Athletes taking Eq often report a slow and constant buildup of quality muscle, due to the very long ester attached to the Boldenone; Undeclynate is a longer ester than the decanoate ester by one carbon. The accumulation of muscle from Eq to actually occur at a slightly slower rate than that found with Deca (nandrolone decanoate). This leads me to advise that if you are considering the use of Eq, you should consider using it for no less than 12 weeks. Since Eq is the prime muscle builder in this compound, you are looking at a very large dose of Drive in order to get a sufficient level of it. There are 25mgs of Boldenone and 30mgs of Methandriol per milligram of Drive. Can you say "2 bottles per week"?

Methandriol (MAD), as you know from it's profile, is 5-androstenediol (5AD) that has had its chemical structure modified by adding a methyl group so the compound can resist being broken-down by the liver when taken orally. It has an anabolic (muscle building) effect of 20-60 (compared testosterone which has an anabolic rating of 100), so not much muscle gain can be expected from MAD use. It is also slightly androgenic, again when compared to testosterone which has an androgenic effect of 100 MAD only rates 30-60. Methandriol low androgenic properties may be a blessing and a curse, on one hand with its low androgenic effects the drug can be used without worries by prone individuals who suffer from prostate problems, hair loss and acne. It may also be used by female bodybuilders who wish to avoid the virilizing side effects of androgens once they stick to a reasonable dosage and cycle duration. On the other hand the benefits of using an androgenic steroid are lost, there is a direct correlation between drugs androgenic levels and strength gains, highly androgenic steroids also tend to aid in fat loss by binding strongly to the androgen receptor (A.R). So not much muscle or strength gain from this one. So what the hell is it good for? Allegedly it is very synergistic with other drugs, notably, Nandrolone and Boldenone. Is it? Who knows… But Methandriol has been shown to have an affinity for glucocorticoid-binding sites so this may result in an anti-catabolic (muscle destroying) effect by inhibiting the muscle wasting effects of glucocorticoid hormones also the parent hormone of methandriol, 5-androstenediol (5AD) has been shown to promote favorable immune function . MAD is said to process a unique trait that no other steroid has, the ability to sensitize the androgen receptor (A.R) to other hormones or the ability to "unblock" the AR, but that's highly doubtful.
Due to the very low doses of actual steroid hormone in Drive, its place in a cycle is very negligible and I can't really recommend it too highly.

Equilon 100



(Boldenone shown without ester)
(Boldenone + 4 esters)
(1, 4-androstadiene-3-one, 17b-ol)
Formula (base): C19H26O2
Formula (esters)
Acetate: C2 H4 O2
Propionate C2H6O2
Cyclopentylpropionate: C8 H14 O2
Undeclynate: C11H20O2
Molecular Weight (base): 286.4132
Molecular Weight (esters):
Acetate: 60.0524
Propionate: 74.0792
Cyclopentylpropionate: 132.1184
Undeclynate: 186.2936
Manufacturer: WDV Pharma
Effective Dose (Men): 200-600mgs/week
Effective Dose (Women): 50-100mgs/week
Active life: 15 days
Detection Time: Up to 5 months
Anabolic/ Androgenic ratio: 100:50

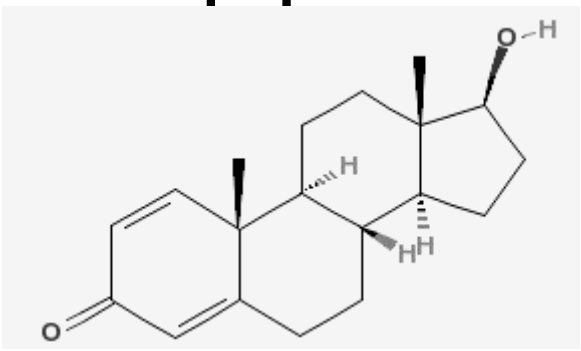
Basically what we're looking at here is the Equipoise (Boldenone) version of Sustanon. It's got 4 esters, 2 of which are long-acting and 2 of which are slow-acting:

Acetate: 10mgs
Propionate: 30mgs
Cyclopentylpropionate (Cypionate) 20mgs
Undeclynate: 40mgs

Now, a multi-estered product (even Eq) is pretty much a forgone conclusion because a steroid saavy chemist learned of the popularity among athletes of Sustanon, and figured out that Eq (Boldenone) is a likely candidate for such a multi-estered blend. The odd thing about this product is the presentation. It comes in 6ml vials! This is the kind of thing that always leaves me speechless and scratching my head wondering why someone would do something like this. I mean, 10mls is usually the industry standard, and it gives us nice round numbers to work with when planning

our cycles. The only thing I can think of is that generally, 400-600mgs (and usually the latter) is the recommended dose for athletes. This product has 600mgs per bottle, so at the optimal dose a bottle will last an average male athlete or bodybuilder a week. Now I'm anabolic steroids for sale waiting for a 7ml bottle of something with a
propionate ester, specifically made to last a week with everyday injections.

Equipoise



(Boldenone shown without ester)
Boldenone Undeclynate
(1,4-androstadiene-3-one,17b-ol)
Molecular Weight(base): 286.4132
Molecular Weight (ester): 186.2936
Formula (base): C19H26O2
Manufacturer: Various
Effective Dose (Men): 200-600mgs/week
Effective Dose (Women): 50-100mgs/week
Active life: 15 days
Detection Time: Up to 5 months
Anabolic/ Androgenic ratio: 100:50

This particular compound was actually created while attempting to make a product which would be be a long acting injectable D-bol (methandrostenolone). What was actually created was a product that acts nothing like D-bol in the real world, despite its similarity to it chemically. Think of Equipoise, chemically at least, as being Dianabol without the 17-alpha-methyl group (that's the thing which makes D-bol able to be ingested orally and not be destroyed by your liver). However, having had first hand experience with both Equipoise (Eq) and D-bol, I can tell you that the results from each are vastly different.

To make Equipoise, a double bond was added between carbon atoms 1 and 2 of the Steran Nucleus of Testosterone. What does this mean? Well, first of all, since Eq was created by one simple modification in the testosterone molecule, you could rightly suspect that it shares many similarities with it. Eq is just as anabolic as testosterone (as you can tell by its anabolic rating above) but is only half as androgenic. Those ratings can be quite deceiving though; I don't know anyone who would claim that you can gain as much weight on Eq as you can gain on an equal amount of testosterone (even though strength gains from the two compounds are very similar). It's not very common to compare Eq to testosterone; however, a far more common comparison is between Eq and Deca. I suspect this because when Dan Duchaine introduced this compound to the steroid using community, he made an immediate comparison to Deca, speculating that it would act similarly to Deca, yet be a stronger version. Eq doesn't act much like deca at all; Deca is actually a progestin and a 19-nor derived steroid whereas Eq is more closely related to testosterone (being only one double bond differrent). Duchaine later rescinded his original statement on Eq

and said that it was disappointing as a mass builder when compared with Deca, but a far better drug than for both strength gains and vascularity. Unfortunately, the myth that Eq's action is similar to Deca's has persisted for nearly 2 decades after he revised his opinion. This is most evident on Internet message boards today, where many will advise against including both of them in a cycle because "they act the same way."

The 1-2 double bonds that Eq has are responsible for many of its characteristics. First of all, it acts to slow aromatization (conversion into estrogen). The best estimate is that it does so at roughly half the rate of testosterone (1). This is the best number I've found in studies. Athletes almost never report estrogenic side effects with Eq, even when the dose is up to one gram per week. Side effects caused by estrogen include oily skin, acne and gynocomastia. As I have said, those are usually not found from Eq. Virilization (development of male sexual characteristics in women) is almost never seen with this compound when reasonable doses are used by female athletes. This is one of the few injectable compounds that could be successfully be used by female athletes and bodybuilders and isn't often faked.

That double bond is also responsible for Eq's resistance for being changed by the 5-5-Alpha-reductase enzyme (2)(3). This enzyme converts a small amount of boldenone into dihydroboldenone, which is a very potent androgen (7 xs as anabolic as testosterone) (4). As I said though, such a small amount of it is converted that it's really of no concern to most athletes taking Eq. This factor, plus its low aromatisation rate, means that athletes don't need to consider using ancillaries with Eq.

Athletes taking Eq often report a slow and constant buildup of quality muscle, and certainly, this has been my experience with the drug. I would speculate that this slow buildup of muscle is due to the very long ester attached to the boldenone; Undeclynate is a longer ester than the decanoate ester by one carbon. Thus, we could expect the accumulation of muscle from Eq to actually occur at a slightly slower rate than that found with Deca (nandrolone decanoate). This leads me to advise you that if you are considering the use of Eq, you should consider using it for no less than 12 weeks. Eq, like Deca, is also detectable in your system for a long time (although its detection time is substantially less than Deca's).

Strangely, shorter estered versions of boldenone are available as well. Anecdotally, many people (and manufacturers) claim that this produces less water retention, but water retention from Eq is virtually unheard of. Therefore, I consider this to be a silly idea.

An informal poll I took on Steroid.com (as well as with my friends) seems to put the ideal dose of Eq at 600mgs/week. Most people I asked about their experience with Eq seemed to think that using over 600mgs/week produced no additional results, but the jump from 400mgs/week to 600mgs/week produced noticeable additional gains, and thus was warranted. I have personally found very nice results from 400mgs-600mgs/week myself.

One of the most pronounced effects in Eq is its ability to raise your RBC's (red blood cells). This is very typical of anabolics; however, Eq appears to do it with a slightly greater degree than most. One of the other effects most Eq users report is an increased appetite. I can say that this is true for me. Also, this factor makes it impossible for me to diet on it. Because of its ability to increase appetite, many will

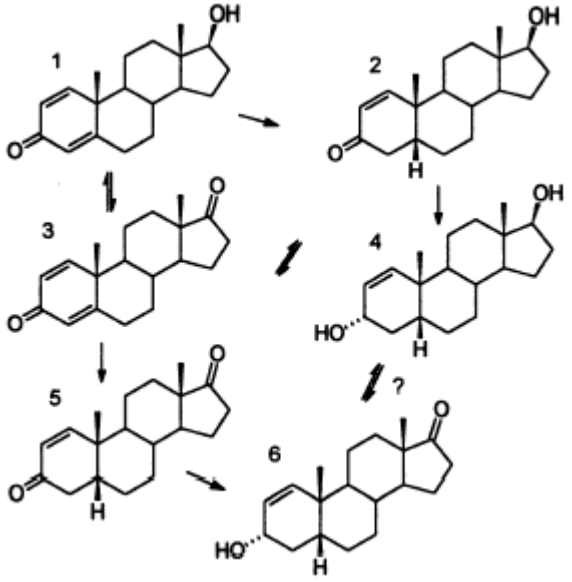
include Eq in a mass cycle, and it's for the quality of muscle gained on it that many will include it in a cutting cycle. It's probably the most versatile injectable compound next to testosterone. People even use a low dosed version of Eq to blend with irritating injectable drugs such as testosterone suspension or propionate. I'm thinking of the old Ganabol version that was dosed at 50mgs/ml, here. It's not that Eq is especially good to cut other steroids with. It was the low dose and cost of ganabol that made it ideal to cut with when sterile oil wasn't available or desireable. This low dosed version was also very popular with women who were comfortable shooting 1cc of this stuff every few days or every week.

Eq will cause a suppression of your hormones, such as endogenous testosterone, so I would also recommend using injectable testosterone in any cycle containing it. Failure to do so could result in possible sexual dysfunction and other sides.

Finally, one of the best parts of Eq is its low price and high availability. Eq is produced by most Underground Labs at very reasonable prices. You shouldn't be paying more than $50 for a 10cc bottle dosed at 200mgs/ml, and that price is true of Mexican veterinary products and underground labs alike.

I'd have to say that due to its incredible versatility, availability, and low price, Eq is going to be a staple in many cycles for a long time.

Here's how your body metabolizes boldenone:



References:

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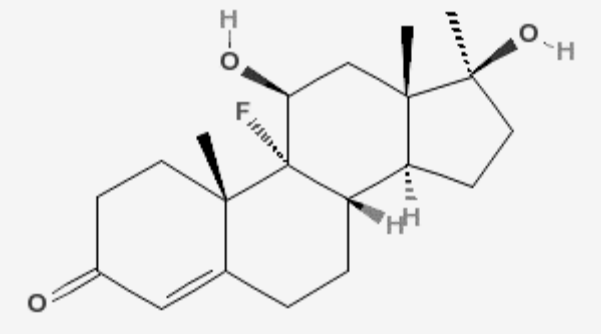
Halotestin



(Fluoxymesterone)
[9-alpha-fluoro-11-beta-hydroxy-17-alpha-methyl-4-androstene-3-one,17b-ol]
Formula: C20 H29 FO3
Molecular Weight: 336.4457
Melting Point: 240C
Manufacturer: Upjohn, Various
Date Released: 1957
Effective Dose: 10-40mgs/day
Active life: 6-8 hours
Detection Time: 2 months
Anabolic/Androgenic ratio: 1,900/850

Halotestin. This stuff is legendary among powerlifters and strength athletes. The mere word conjures up images of little mint colored pills that turn Dr. Jeckyl instantly into Mr.Hyde. Since I'm generally Mr.Hyde 24/7, this isn't of much concern to me, but let's sees what else Ha lotestin can do for us.

If you're anything like me, the first thing you'll notice is Ha lotestin's absurd Anabolic and Androgenic rating. This stuff is 19 xs as anabolic as testosterone and 8.5 xs as androgenic! Whoa! I have to admit, those numbers are a bit deceiving, and through personal experience, I can say that Halotestin will not put anywhere near as much muscle on you as testosterone. Let's take a closer look at Halo, see what kind of realistic effects we can expect from it, and what kind of side-effects we'll be dealing with.

Firstly, I have to admit that I love this stuff, and generally its use in athletics and powerlifting is far more pronounced than it's use in bodybuilding. Here, it is basically a one-trick-wonder used in the final weeks before a contest to harden up an already lean physique and gives the user some added aggression during the final calorie depleted workouts before a contest. Halo has no estrogenic activity, and thus will not cause any kind of water retention or most of the bad effects associated with estrogen. It is, however, hepatoxic (liver toxic) (13) and I recommend keeping doses at or around 40mgs/day for a maximum of 4-6 weeks. If you are using it for its pronounced effect on aggression, you can simply use 10mgs prior to a workout. I personally prefer 10mgs upon rising and 10mgs prior to a workout during the most intense weeks of a bulking or cutting cycle. This (as you will see later) can be used with minimum HPTA inhibition.

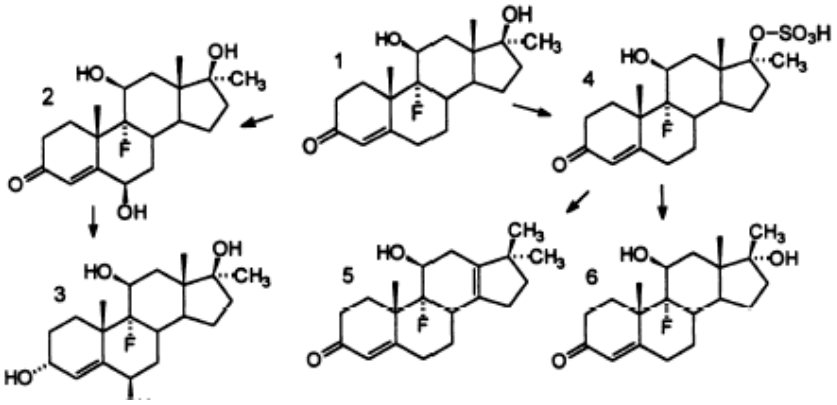
It also has a volumizing effect on the physique, and for those who have a low a bodyfat percentage, this will immediately cause a more contest ready appearance. This is due, at least in part, to Halo's ability to increase mean hematocrit with hemoglobin levels as well as red cell mass (4)(5)(6). Halo also appears to act through cells already committed to respond to erythropoietin (11). This is good news for athletes, of course. As you can see, Halo has quite a profound effect on red blood cell production. This action is clearly one of the most obvious mechanisms and its effects increase stremgnth and energy levels. It also points to the possibility of using it for athletics and sports where a high VO2 max is needed for activities such as Rugby, Mixed Martial Arts, etc…

It also exerts its effects on strength and fat loss by regulating fatty acid oxidation in the liver and fast-twitch muscle mitochondria (2). Oddly, for a drug that exerts such a nice anabolic effect and promotes such good strength gains, it has a pretty low Androgen Receptor Binding affinity (14). I suppose in this respect, it can be compared to Winstrol (Stanozolol).
As far as strength and agression goes, Halo is a great drug. It is especially useful on a cutting or strength cycle. Its use for mass and weight gain have been pretty disappointing for most users.

Fluoxymesterone administration is (unfortunately) accompanied by a reduction in thyroid binding globulin which causes associated decreases in T3, while the free T4 index remains totally unaltered, thus, implying that thyroid function was unchanged. Remember, many anabolic steroids (notably Trenbolone) lower your T3 levels. In addition, during fluoxymesterone administration there was a reduction in testosterone, gonadotropins and LH response to LHRH. Basal TSH did not vary, but there was a reduction in the peak and integrated TSH response to TRH. PRL levels tend to remain unchanged during fluoxymesterone use (8). Halo is of course suppressive to your HPTA, but I've found that in some studies where measurements were made of serum FSH, LH, testosterone, up to 20mgs per day of Halo did not suppress them measurably (9). This could possibly indicate the use of up to 20mgs/day of Ha lotestin without being in any great danger of suppressing endogenous hormones.

Halo is a testosterone derived steroid, and has an 11-beta group attached to it to inhibit aromatization. Although it is particularly prone to being 5-alpha-reduced and may cause DHT related side effects such as acne and hairloss. It is metabolized primarily by 6 beta-hydroxylation, 4-ene-reduction, 3-keto-reduction, and 11-hydroxy-oxidation. We know this by the indentification of 4 particular metabolites and the tentative identification of at least 3 other metabolites. Detection of Halo in urine is possible for at least 5 days after a single 10 mg oral dose to previously untreated adult males. This occurs by monitoring the presence of 2 metabolites, since the parent drug is not detectable more than 1 day after the dose (12). However, the moral-compass of the athletic world, the IOC, has developed a test for fluoxymesterone metabolites that will detect them for up to 2 months after cessation of use. This item is not in high demand in bodybuilding except for as a pre-contest drug and would more likely be found circulating in Athletic and Powerlifting circles where it is more commonly used in a cycle.

Here’s how your body metabolizes Fluoxymesterone:



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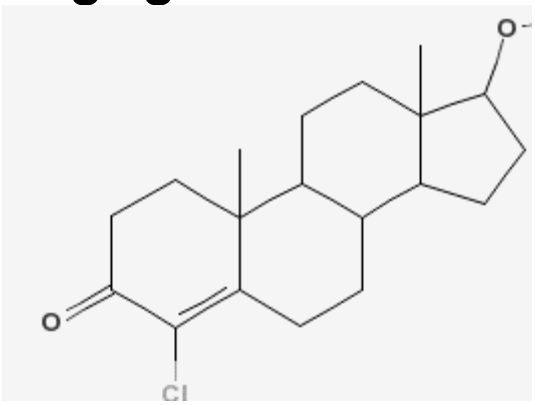
J Clin Endocrinol Metab. 1981 Feb;52(2):173-6.

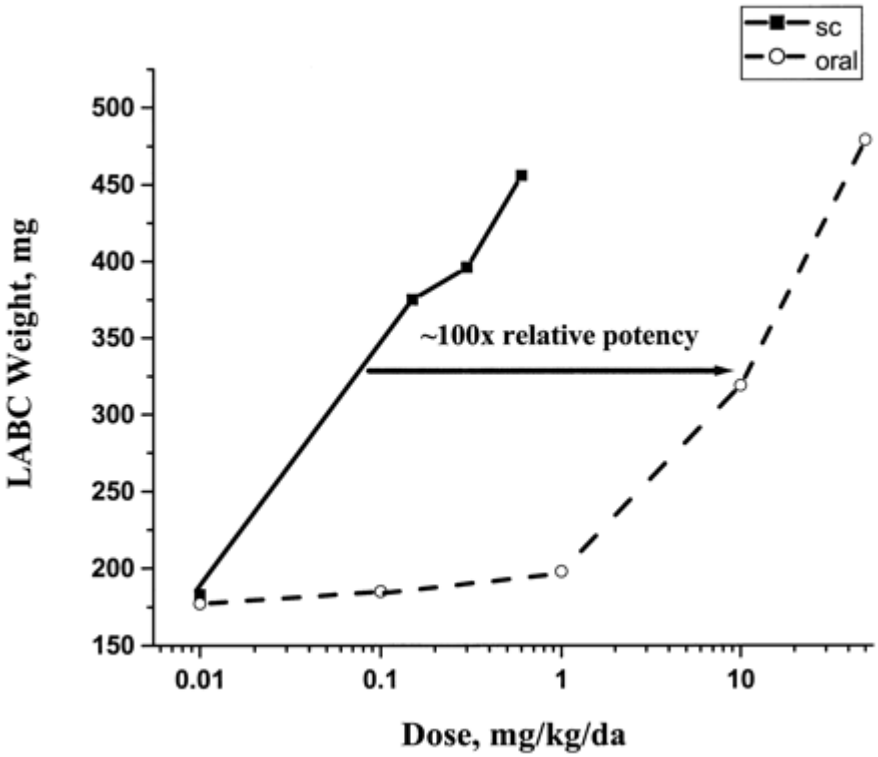
Megagrisevit-Mono



(Clostebol Acetate)
[4-chloro-androst-4-en-3-one, 17b-ol]
Molecular Formula: C21 H29Cl O3
Molecular Weight): 322.8741
Melting Point: N/A
Manufacturer: N/A
Effective Dose: (injectable) 100mgs/day, (oral) 100-200mgs/day
Active Life: (injectable) 2-3 days, (oral) 4-6 hours
Detection Time: 3 months
Anabolic/Androgenic Ratio: 46:25

Clostebol is basically testosterone with an added 4-chloro group in the A-ring. What does that mean? All it means is that it cannot properly interact with the 5-Alpha-Reductase enzyme to be 5-alpha reduced to dihydrotestosterone. Thus, hair loss and acne caused by DHT is not possible. Aromatization is also not possible, so estrogenic side effects aren't likely either. On paper this looks great and it basically has a similar anabolic: androgenic ratio to other steroids like Masteron. But I have to say that since it isn't DHT-Derived like Masteron is, it's probably not going to have some of the cool precontest physique hardening properties of Masteron and other similar compounds. To be perfectly frank, Clostebol is just a pretty weak testosterone-derived steroid. I wish I could say that it has more to offer, but really, it doesn't. Megagrisevit Mono (the brand name for Clostebol Acetate) is presented in a 10 ml per 1.5 ml vial. This means you'll need to fill up on many oily injections, which you are going to have problems finding injection sites for. You know what else? The short ester found on this stuff will mean that you have to basically load up on tons of this stuff at least every other day. Women may be able to get by with a bit less, possibly 1.5mls every other day. There is an oral form of clostebol acetate that is under the same name of Megagrisevit Mono, but I can't see that form being extremely effective either. I think you'll need to take 100-200mgs of it daily. Remember, it isn't 17-alpha-alkylated, so it'll be destroyed by your liver in pretty short order. I've heard many reports on Steroid.com that a few people have had access to this drug and liked it, but I've not been able to confirm this with anyone reputable. My advice is that this drug has been discontinued for a good reason and should be avoided by most serious athletes and bodybuilders.

As a side note, I'm not really too thrilled with the addition of an Acetate ester to improve oral absorbtion. When we look at Trenbolone Acetate (oral) vs/ Trenbolone Acetate (Injectable), on the chart below, we can see that the injectable is around 100 xs as effective for increasing Labc weight, which can be farily accurately used as a measure of anabolism:



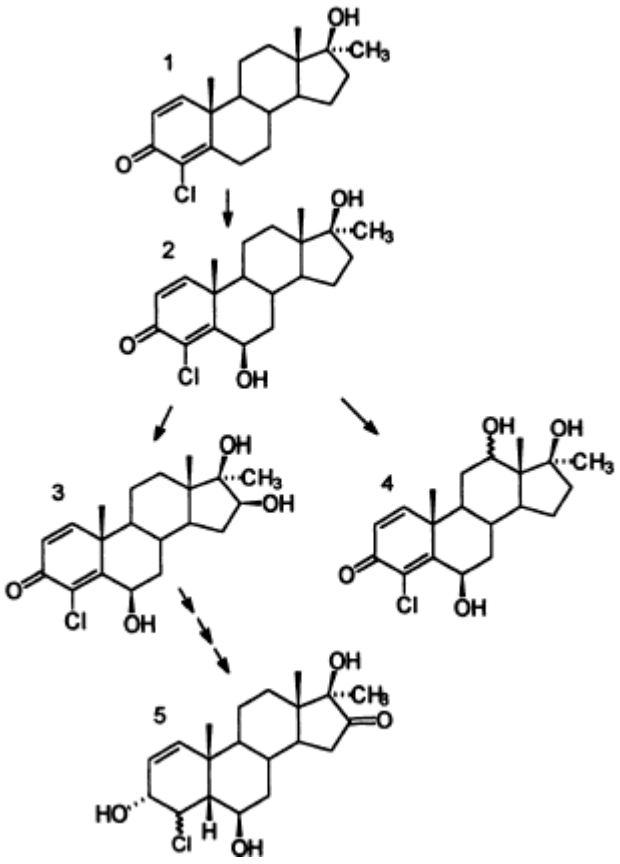
(SC= injection; oral = oral)

That's a pretty hefty difference in that area, and it is more than enough to get me wondering about the effects of oral acetate ingestion vs/ intramuscular administration. I have to say, again, I'm not thrilled with going the oral route, simply because there's an acetate ester attached.

One of the most interesting things I found when researching this compound is that an athlete had tested positive for it by having sex with a woman who had used a Brazilian compound known as Trofodermin, which is produced by Searle. This product is indicated for cervicitis, postoperative vaginitis, and ulcerative vaginitis, and the recommended dose is 5g 1-2x a day. And, of course, it is to be administered intravaginally. As a result, the athlete who tested positive for Clostebol claimed to have had sex with a woman who had been using this product. Then tests (all in the name of science) were performed where two couples had intercourse following the vaginal application of Trofodermin, and the men were tested via urinalysis for Clostebol (before and after intercourse). It was then determined that Clostebol can indeed be absorbed through the penis following vaginal administration of a Clostebol containing compound. Whoever said that anti-doping research is no fun?

Well, in any case, the subjects involved had fun, although I suppose they weren't Olympic athletes. I suppose it would suck to be in the control group for that study, huh?

Anyway, here's how your body metabolizes Clostebol:



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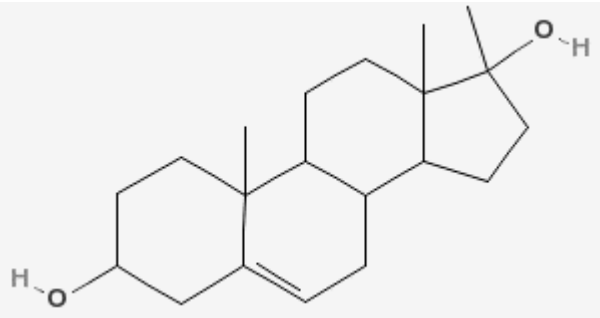
Methandriol



(Methylandrostenediol)
[17a-Methyl-5-androstene-3B, 17B-diol.]
Formula: C20 H32 O2
Molecular Weight: 304.4716
Molecular Weight:: 304.4716
Molecular Weight (ester): N/A
Formula (base): C20 H32 O2
Formula (ester): N/A
Melting Point (base):
Melting Point (ester): N/A
Manufacturer: Various
Effective Dose (Men):30-50mg orally (daily)/ 300-500mg injectable (weekly)
Effective Dose (Women): ?
Active life: 2-3 days
Detection Time: 3 months
Anabolic/Androgenic ratio: 30-60/20-60

Methandriol is the brand name for the anabolic steroid methylandrostenediol. Methandriol (or MAD as I like to call it) seems to be one of the more rare and exotic anabolic steroids. It is actually 5-androstenediol (5AD) that has had its chemical structure is modified by adding a methyl group so the compound can resist being broken-down by the liver when taken orally. This results in better utilization by the body and is called 17-alpha alkylation (17AA). The first aspect that will be addressed is the one that most interests bodybuilders, the muscle building potential of the drug. With an anabolic (muscle building) effect of 20-60, (compared testosterone which has an anabolic rating of 100) not much muscle gain can be expected from MAD use. It is also slightly androgenic when compared to testosterone which has an androgenic effect of 100 MAD only rates 30-60. Methandriol low androgenic properties may be a blessing and a curse. On one-hand with its low androgenic effects, the drug can be used without worries by individuals who suffer from prostate problems, hair loss and acne. It may also be used by female bodybuilders who wish to avoid the masculinizing side effects of androgens once they stick to a reasonable dosage and cycle duration. On the other hand the benefits of using an androgenic steroid are lost. There is a direct correlation between a drugs androgenic levels and strength gains. Highly androgenic steroids also tend to aid in fat loss by binding strongly to the androgen receptor (A.R). So, there is not much muscle or strength

gain from this one. So what the hell is it good for? Glad you asked. Methandriol has been shown to have an affinity for glucocorticoid-binding sites (2) so this may result in an anti-catabolic (muscle destroying) effect by inhibiting the muscle wasting effects of glucocorticoid hormones (3). Also the parent hormone of methandriol, 5-androstenediol (5AD) has been shown to promote favorable immune function (4). MAD is said to process a unique trait that no other steroid has, the ability to sensitize the androgen receptor (A.R) to other hormones or the ability to unblock the AR. I do not know how it started, but this statement is untrue and very misleading. First, the A.R does not get "clogged up." In fact, all androgens increase the number of A.R in muscle tissue (5) so there is no need to use any specific steroid for this purpose. So far the report on methandriol does not look as good as other anabolic steroids because there are little muscle and strength gains. However, it may boost immune function and activate other non-A.R dependant mechanisms of muscle growth. Adverse androgenic sides are also not a major concern.

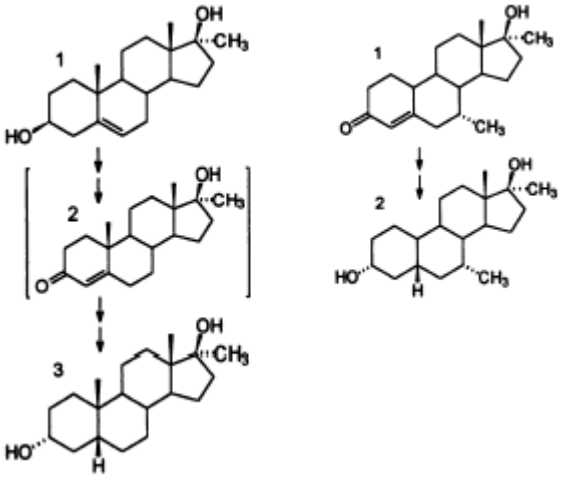
Methandriols parent hormone 5AD has been shown to be a steroid with "potent estrogenic properties" (6). Since methylation makes a hormone more bio-available and thus "stronger", I am lead to believe that methandriol's estrogenic activity is even more potent than 5AD. This alone is bad news for any Steriod.com members interested in adding this drug to a cycle. Excessive estrogenic activity can lead to breast tissue growth in men (gynecomastia), fat gain, water retention, loss of sex drive, and sluggish natural testosterone production. Worse still is that 5AD itself activates the estrogen receptor (E.R.) (6). This would make aromatize inhibitors like letrozole (femera) and anastrozole (arimidex) a bit less effective in combating MAD estrogenic sides because it does not have to be exposed to the aromatize enzyme to do any harm. More evidence that supports MAD has direct estrogenic properties is its use in veterinary injectables. Commonly used for promoting weight gain in animals (7), studies indicate combining anabolic steroids with female sex hormones (estrogen, progesterone) promote better weight gain than when alone (8). This is especially true when female sex hormones are stacked with the non-aromatizing nandrolone derivative trenbolone (9). MAD estrogenic properties would make it useful in this regard. This is the REAL reason MAD is added to other anabolic veterinary preparations, not because it sensitizes the A.R. Most of the profiles on methandriol says it gives "massive strength gains"; however, looking at the evidence, it would seem the only "massive strength gains" from MAD could stem from the increased amount of water retention inside the muscles, which would result in a rebound effect when the muscles are compressed during the lowering of a weight similar to the action of a benching shirt. Believe or not estrogen is a muscle building hormone as well, causing growth by attaching to the estrogen receptor on muscles (10). These are minor benefits, however, and they are not worth the potential adverse sides. A common trait from using MAD is elevated blood pressure (11). This could be from the water retention due to high estrogenic activity or other actions in the body (11). There is no evidence that methandriol negatively effects cholesterol, so your cardio vascular heath would be the least of your worries if you chose to use methandriol.

Now that we know the properties of this drug, we can design cycles to take advantage of MAD. Doses for MAD range from 30mg to 50mg per day and can be taken orally or by injection. Being a water based suspension, the active life of the drug would be measured in hours; thus, methandriol must be injected at least everyday to keep steady blood levels of the active hormone. If you are to ever come across this drug in its water based form and did not want to inject it, don't worry. Remember, it's a 17AA compound so, yes, YOU CAN DRINK METHANDRIOL. The

same thing applies to the drug (oral administration) in tab form, if you were ever to find it. Being a 17AA steroid, it puts some strain on the liver when orally consumed. Steroid.com members are advised to limit the drugs intake to several weeks. It is obvious that MAD is too weak to be used without stacking it with other steroids, and it is very common to find it included in various exotic steroid preparations. Keep in mind, MAD itself has an estrogenic action, so the appropriate precautions must be taken to combat this. Methandriol first must be stacked with testosterone, preferably a short ester one (see testosterone propionate). Testosterone will combat the libido lowering effects of MAD, as stated before; estrogenic hormones like MAD seem to work best when combined with trenbolone, so this would be the second anabolic of choice. Now you are going to need something to deal with methandriol's estrogenic action. Letrozole would be my first choice because it not only block the aromatize enzyme, but it reduces the concentrations of estrogen receptors as well (12), leaving MAD with less to bind to. Tamoxifen (novice) would also be a good addition to the letrozole, binding to what ever estrogen receptors are left. However, ancillary usage could negate many of methandriol's benefits because they are seemingly estrogen dependant!! Now the previously mentioned cycle looks like a cutting cycle. I did not design it to be one, it's just that combining MAD with other highly aromatizing steroids or "bulking" drugs like dianabol, anadrol and long ester testosterones, is asking for trouble. The level of water retention to follow would surely result in high blood pressure (not to mention the potential estrogenic side effects). I cannot recommend MAD be used with other bulking agents. In fact, I do not recommend that methandriol be used at all!

Methandriol is a rare find in the hands of Steroid.com members. It is an obscure anabolic that is reported to have special properties it simply does not have. Highly estrogenic and barely anabolic, it is extremely doubtful this steroid will ever catch on in the Steroid.com bodybuilding community.

Here's how your body metabolizes Methandriol:



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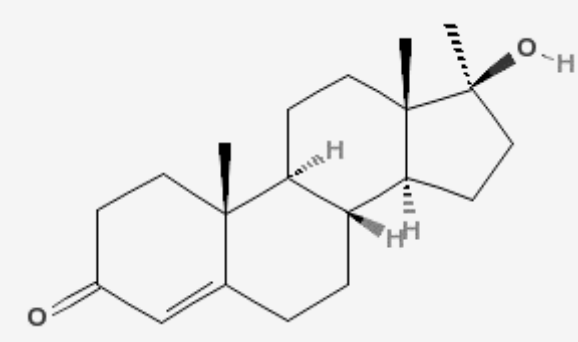
Methyltestosterone



(Methyltestosterone)
[17alpha-methyl-4-androstene-3-one,17b-ol]
Formula: C20 H30 O2
Molecular Weight: 302.4558
Melting Point: 162-167
Manufacturer: Most Major Pharmaceutical Companies
Effective dose: (Men)25-100mgs/day; (Women) N/A
Active Life: 6-8 hours
Detection Time: 4-6 weeks
Anabolic/Androgenic Ratio (Range): 94-130/115-150

To understand the history of Methyltestosterone, we need to go back to the 1930's, when the structure of the hormones estrone, testosterone, and progesterone were revealed and understood more completely and their ability to be synthesized from cholesterol was noted. It was a logical step for researchers to realize that a very simple chemical modification of the natural hormone would produce an orally active compound. By the early 1950's, injectable testosterone, progesterone, and the subject of this profile, Methyltestosterone, occupied almost 25% of Ciba's pharmaceutical turnover (1). Despite the elevations in liver function that oral testosterone preparations can cause, (and Methyltestosterone is no exception to this) these drugs still constitute approximately a third of all testosterone prescriptions filled in the United States (2).

Here, we're primarily concerned with the use of Methyltestosterone as it applies to athletes and bodybuilders. As with other Anabolic Androgenic Steroids (AAS), a quick look at the structure of Methyltestosterone will give us some clues as to how it will function once in the human body. We can see that it is 17-alpha-methyl altered, so the hormone can survive its first pass through the liver, and be effective as an oral agent rather than being destroyed by the liver. Unfortunately, this alteration also puts stress on the liver and contributes to the hepatoxicity (liver toxicity) of this compound, which is quite profound with this drug (3). Luckily, it doesn't have adverse effects on cholesterol, and can even lower plasma viscosity (4). And, since this is just testosterone that has been altered to be orally available, some users actually let the tablet dissolve under their tongue for increased absorbtion. We can expect many of the same results and side effects that we would with any other testosterone form such as development of male sexual characteristics in women. Hence, they should avoid using this compound at any dose, and in men, aromatization, or conversion to estrogen, is found. This can contribute to hair loss,

acne, oily skin, water-retention, gynocomastia, hair growth on the body, and other side effects. It's also worth noting that this compound converts to DiHydroTestosterone, which can cause prostate enlargement and hair loss. Taking endogenous hormones (AAS) will affect your natural testosterone levels as well as many interrelated hormones and processes. MethylTestosterone is no exception to this rule, and taking it will result in significant decreases in plasma levels of gonadotropins, gonadal steroids, sex hormone binding globulin, free T3 and T4, and thyroid binding globulin (5). Inclusion of Arimidex at .5mgs/day to help lower estrogen levels or a similar ancillary, such as Finasteride (1mg/day to help combat DHT) would be warranted with the use of Methyltest. Also, when considering the possible side effects and hormonal effects Methyltest can have on a user, proper Post Cycle Therapy (Nolvadex at 20mgs/day and 500 iu/day of HCG for 3 weeks) is necessary.

I think that the effect you'll typically get from Methyltest is most comparable to that of the short (or no) ester testosterones (i.e. suspension or propionate). Ergo, I believe you will get a bit stronger but probably will not be impressed with weight gains unless intolerably high doses are used. A quick survey of the results gained by members of Steroid.com reveal that none of them were impressed with either weight or strength gains from Methyl testosterone, but some liked the drug. Hence, I recommend that you choose a different compound if you are simply trying to get bigger. Methyltest won't impress anyone with its ability to add weight to an athlete. The members of Steroid.com who liked Methyltest generally cited effects such as increased strength and aggression while using it, especially when it was taken before workouts. Herein lies the most effective and common use for Methyltest in a cycle. It is effective for rapid increases in strength and aggression when a dose is taken prior to a workout or athletic event. Twenty-five mgs taken an hour before working out or competing should be sufficient for this purpose, while I'd recommend 2-4x that dose if it's being used as the primary oral in a cycle. Someone on a cycle may want to consider the inclusion of this drug into their regimen to make their workouts more productive, and thus get maximum results from their workouts. This would allow the other anabolics in their cycle to be more efficient. Powerlifters also love this drug and it is often used prior to competitions as well as prior ot workouts.

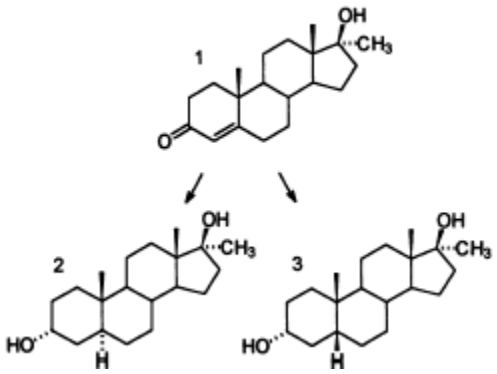
Again, in terms of cost/benefit ratio (side effects vs. results), Methyltest is most effective for use prior to a weight training workout or athletic competition, (or possibly to increase aggression in the weight room on a low calorie diet) and not as a weight gain or strength gain drug. Using Methyltest 3-4x a week before workouts will help you derive more benefits from those workouts (and this will be especially important on a cycle) while minimizing possible issues with liver toxicity. Trying to use this compound multiple times per day and every day of the week (as would be necessary if this were the primary oral in your cycle) would not produce acceptable results (in my mind, anyway) when compared with the risks taken.

There are better orals than Methyltest for both size and strength, but perhaps none are as good at increasing aggression. You can use this drug in conjunction with any type of cycle as a pre-workout boost. If this drug is used as the main oral in a cycle, then the use of Methyltest should be limited to 50mgs/day for no more than 6 weeks. After cessation, a long break from all liver-stressing compounds should be taken (i.e. oral AAS, Alcohol, etc…).

Availability of this drug is reasonably high, as most major pharmaceutical companies produce it, as do a few UnderGround Labs. It's reasonably priced since the demand

for it isn't very high. I wouldn't be able to justify paying more than a quarter (25cents, American) per tab for this stuff, and it could be found for under that based on availability, demand, and results.

Here's how Methyltestosterone is metabolized in your body:



References:

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2. Westaby, D., Ogle, S.J., Paradinas, F.J., et al Lancet, August 6:261, 1977
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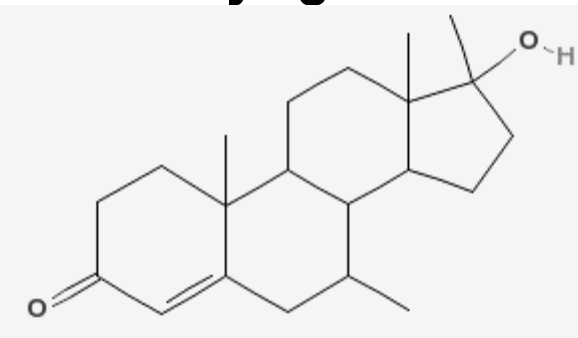
Myagen



(Bolasterone or Dimethyltestosterone)
[7-ALPHA, 17-ALPHA-DIMETHYLTESTOSTERONE]
Molecular Formula: C21H3202
Molecular Weight: 316.4826
Melting Point: 162-167
Manufacturer: N/A
Release Date: N/A
Effective Dose: 50-100mgs
Active Life: 6hours
Detection Time: 4-6 weeks
Androgenic/ Anabolic Ratio: 300:575

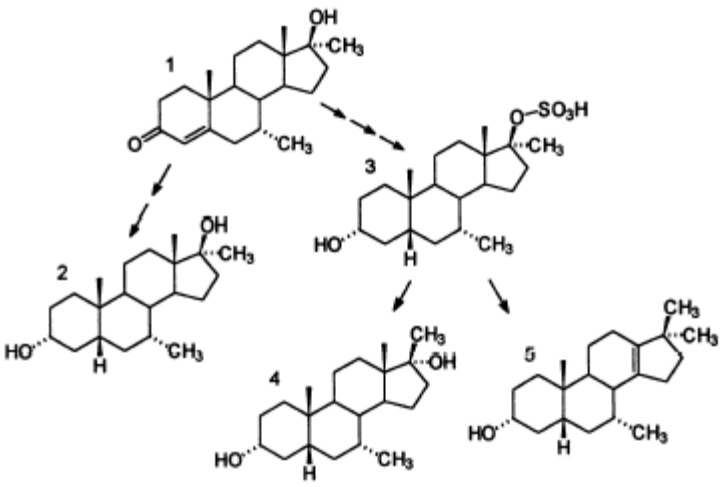
Basically, what we have here is DiMethyltestosterone or Methyltestosterone with an added methyl group (hence "dimethyl") at the C7 position. I think any further comparison to Methyltestosterone (except perhaps with regards to hepatoxicity) wouldn't really be warranted.

It needs to be noted that a lot of what I'm going to tell you about this drug is basically speculation for now, although I suspect that since we've seen the reemergence of several drugs which wear gone for decades (Mitolan, OT, etc…), this one isn't far behind. Why would this stuff reappear on the market? Well, by taking a look at its androgenic/anabolic ratio, you should see why. It's 3x as androgenic as testosterone and almost 6x as anabolic! This makes it one of the most powerful oral anabolic steroids ever made.

While writing this book, I contacted several underground Labs to see if they could produce this drug, for me to test out on myself (as I have done with several experimental compounds already). Unfortunately, nobody seemed to know where to get this stuff from, and nobody I've spoken to has ever used it.

So, as it stands, we can look at this drug on paper and speculate that it would be a very useful anabolic compound, it's going to remain on paper until some resourceful underground decides to produce it.

This is how Bolasterone is metabolized in your body:



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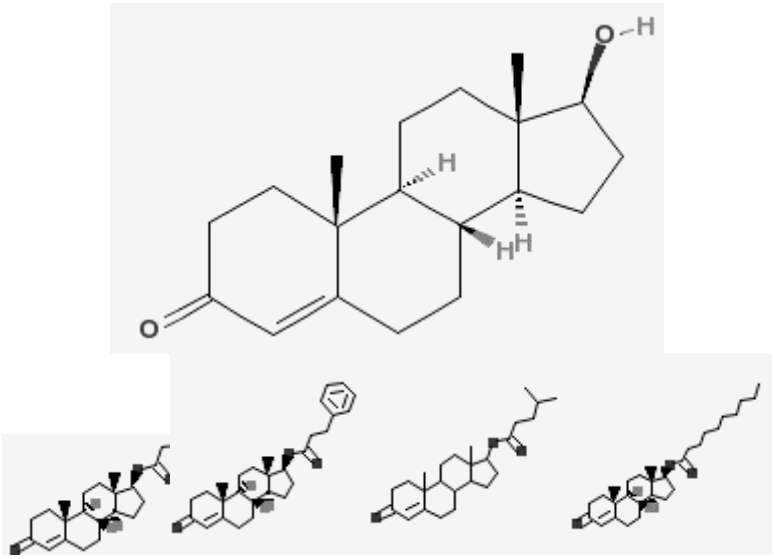
Omnadren



(Testosteone shown, plus testosterone with Propionate, Phenylpropinoate, Isocaproate, and Caproate esters)

(Testosterone + 4 esters)
[4-androsten-3-one-17beta-ol]
Formula (of Base): C19 H28 O2
Formula (esters)
Propionate:C3 H6 O2
Phenylpropionate:C9 H10 O2
Isocaproate:C6 H12 O2
Caproate:C16 H12 O2
Molecular Weight (of Base): 288.429
Molecular Weight (esters)
Propionate: 362.5082
Phenylpropionate: 438.6058
Isocaproate: 404.5886
Caproate:116.16
Melting Point: 154-155C
Manufacturer: Jelfa
Effective dose: 250-1,000mgs/week
Active Life: 10 days
Detection Time: 3 months
Anabolic/Androgenic Ratio: 100:100

1 milliliter of Omnadren 250 contains:
30mg testosterone propionate
60mg testosterone phenylpropionate
60mg testosterone isocaproate
100mg testosterone caproate

Omnadren 250 is a combination of the 4 separate test esters listed above. Older versions of the drug, list the final two esters as 'isohexanoate' and 'hexanoate.' However, it should be noted that hexanoate is simply another word for caproate, so

the drug's esters have not actually been modified. Most commonly, people will correlate Omnadren 250 with its cousin Sustanon 250, since they are both a blend of 4 test esters. The only difference between the two lies in the last and most concentrated-ester. Whilst Omnadren contains the caproate ester, Sustanon contains the decanoate ester in the same concentration. Really, except for price, there's no difference between them, and price-wise, you're going to be paying ½ as much for Omnadren as you would for Sustanon (or $3-4usd/amp). This is a very nice price, and for that reason, I typically advise people to purchase Omnadren over Sustanon if their source carries it.

It is also not uncommon to hear people refer to Omnadren as a superior version of testosterone since it boasts 4 esters instead of 1 (or none). This should be taken with a grain of salt. All testosterones produce very similar effects, while the ester simply delays the release of the compound into the body, which has two immediate consequences. The first being less important: injection frequency. This has recently become a hotly debated issue. On one side, there are those who advocate injections only once or twice a week. Their arguments are supported frequently with cycle results that have yielded 'good gains.' On the other side, perhaps the more scientific side, are those who advocate injections at least every-other-day (EOD) or everyday (ED). One only has to glance at the ester constitution in Omnadren to understand why this is so. Such small concentrations of the shorter esters (propionate and phenylpropionate) are rendered practically useless when Omnadren is injected once or twice a week. Furthermore, when injecting only a few times a week the "peaks and valleys" of concentration in the blood are not desirable. We want our blood concentration of the drugs to be as high as they can be –relative to dose- as long as they can be. Obviously, this is not the case when fast acting esters are introduced and subsequently dissipated before another injection is given.

The longest ester in Omnadren (caproate) is slightly faster acting than the longest ester in Sustanon (decanoate), and users will notice an increase in their testosterone levels sooner with Omnadren than with Sustanon. This has a few consequences that we shall examine now. First of all, since testosterone aromatizes (converts) to estrogen, a buildup of this female hormone will occur more rapidly. Estrogen increase follows the inevitability of increased water retention. This is significant for 3 reasons. First, the user's strength will increase. Secondly, the user's size will increase, and finally, definition in the muscles will begin to dissipate. As a result, Omnadren is typically used more for bulking than cutting. The extent of these effects are highly dictated by the user's diet and training habits; although, it is also easily controlled with the proper use of anti-estrogen drugs such as Nolvadex, Armidex, Proviron, and a myriad of others.

As I previously stated, testosterone is a highly anabolic and androgenic hormone, and it has an anabolic (muscle building) rating of 100, making it a good drug to use if one is in pursuit of more size and strength. And if you aren't in pursuit of more size and strength, then why would you be reading this, right? Well, let's get on with it and look at exactly what makes testosterone a good mass builder. First, testosterone promotes nitrogen retention in the muscle (6). The more nitrogen the muscle holds the more protein the muscle stores. Testosterone can also increase the levels of the highly anabolic hormone, IGF-1, in muscle tissue (7)(9). Even the aromatized part of testosterone that turns into estrogen may increase levels of IGF, and it may also increase sensitivity to it. Testosterone's actions come mostly from its binding to the androgen receptor to promote A.R dependant mechanisms for both muscle gain and fat loss (5). Thankfully, it also significantly increases the

concentrations of the A. R in cells critical for muscle repair and growth and A.R in muscle (8). Testosterone induces changes in shape; size and also can change the appearance and the number of muscle fibers (7). Androgens like the testosterone(s) found in Omnadren can protect your hard earned muscle from the catabolic hormones (8), whether those hormones occur from exercise or other stress.

There are strong androgenic side effects, which are pronounced with Omnadren (as with all testosterones). Oily skin, acne, increased body/facial hair, and, depending on the individual, an increase in aggressiveness can occur. Omnadren can also be hard on the hairline. This is partly due to the conversion of the testosterone into dihydrotestosterone (DHT). Test is converted to DHT via the 5-alpha reductase enzyme. DHT is more potent than test at the androgen receptor (the double bond is removed from the carbon4-carbon5 bond and replaced with a hydrogen atom on each) and is responsible for some growth. It can also cause some negative side effects as well. Because of this bond, Testosterone is actually much more anabolic. For example: DHT formation in the scalp is suspected of causing/expediting male pattern baldness. To possibly combat this, one can use finasteride (Proscar®). This drug will inhibit the conversion of testosterone to DHT, but many users will report that since DHT is more potent at the androgen receptor than test, gains in muscle mass, as well as strength, will diminish. On the other hand, a lack of DHT caused by blocking 5-AR can sometimes cause gynocomastia (4)(5).

Typically, cycles that contain Omnadren 250 will be around 12-16 weeks. The idea is that it will take at least 2 weeks for the compound to become fully 'active' in the body, and most users will report an additional 1-3 weeks until the effects of Omnadren are truly felt. As a result, gains from Omnadren are not typically noticed for about 1 month after the first injection. What most people mean by this is that, although the actual drug is already active, gains aren't realized immediately. The majority of users will supplement a fast acting oral drug such as Dianabol or Anadrol in the first 4 weeks of a cycle, which is thought of as a 'kickstart' until the effects of the Omnadren are fully felt. As mentioned above, a typical weekly dose of Omnadren can range from 500mg-1000mg per week. Those who are new to steroids and cycling should generally start with a minimal dose to better judge how their own bodies will react to the synthetic testosterone. I suggest that beginners stick with 2 amps per week if they're inclined to use this preparation.

Omnadren has always been manufactured by Polfa©, who have changed their name to Jelfa©. The company is based in Poland, and as one might obviously conclude, the availability and price of Omnadren 250 is different in many places. Often, fake Sustanon in the 80's would actually turn out to be Omnadren, which was much less highly prized (nonsensically).

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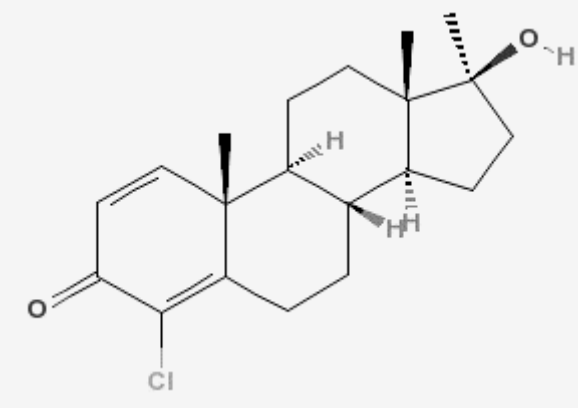
Oral-Turinabol



(4-chlorodehydromethyltestosterone)
[4-chloro-17b-hydroxy-17a-methyl-androst-1,4-dien-3-one]
Formula:C20 H27 O2 Cl
Molecular Weight:334.8854
Manufacturer: Underground Labs only
Effective Dose (Men): 10-40mgs/day
Effective Dose (Women): 5-15mgs/day
Active life: 16 hours
Detection Time: 6 weeks
Anabolic/ Androgenic ratio: >100:>0

Oral Turinabol was first developed by scientists in East Germany for their Olympic and national-level athletes to use. This, plus the eventual removal of it from the market caused OT to become a very "sexy" drug for athletes to try to obtain. The East Germans studied this drug pretty extensively for many years and some of the success of this now defunct country was attributed to this drug. It made its first appearance to athletes in East Germany as little blue "Vitamins" their coaches gave to them. This drug has been discontinued by all of the major pharmaceutical houses, and is only found through certain underground labs. Although some UnderGround Labs have access to this item and it appears on their price-lists, it's still rare enough. I believe it was first produced in the last half decade by a certain cat in Thailand. It's my speculation that it's on the cusp of either becoming very popular, to the point where every Underground Lab will start carrying their own version of it, or it will disappear again and only be carried by a select few, if any, suppliers.

The easiest way to explain this drug is that it is a derivative of Dianabol. Though it is a derivative of our old friend Diana, it's still quite different. Remember, Equipoise is estrified Dianabol, and really has nothing in common with it in terms of real-world-effects. Let's examine OT in relation to D-bol for now. The first similarity between the two is that they have been 17-alpha-alkylated (a carbon atom was added at the 17th position) to survive the first pass through the liver. This, of course, increases hepatoxicity (liver toxicity). OT has a much lower level of androgenic activity compared to dianabol, but has a better balance/ratio of anabolic and androgenic effects. It has a rating of a 0 (according to the Vida reference) for androgenic properties and a 53 for anabolic properties based on a score of 100 each for testosterone. This promotes more of a "hard" look, or what competition bodybuilders often call "quality" muscle. You do not get the same "puffy" look as you would on d-

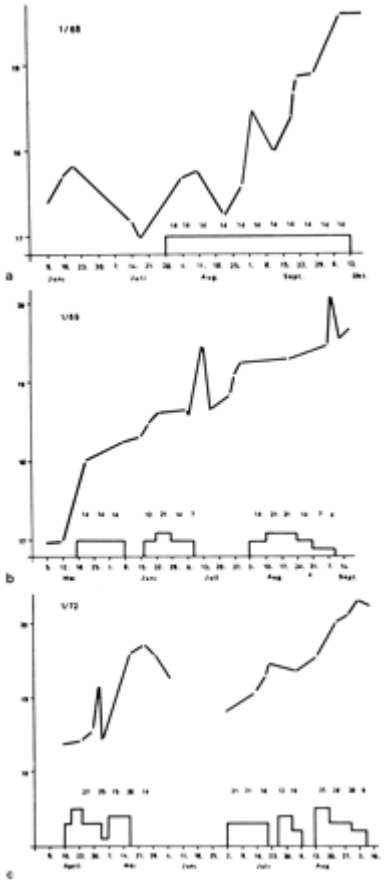
bol, and many people have thus compared the results they've gotten from OT to Anavar. Actually, though, this stuff is simply dianabol with a 4-chloro alteration, the same alteration found in Clostebol.

Due to this 4-chloro substitution in the A-Ring of its Steran Nucleus, this drug cannot be aromatized (3). This is, as you know, quite beneficial and is one of the reasons Oral Turinabol has been called a "gentle d-bol." You will probably not get any typical estrogenic side effects like water retention, acne, gyno, etc. with any dose of this drug. I read a couple of studies examining male athletes over a period of six weeks who were given 10 mg OT/day and did not show any indication of health-threatening effects. It has been recommended that men should take between 20-40mg every-day and women a 5mg everyday, and I generally think that it is not very strong (as compared to many other orals) and wouldn't drop below the 40mg mark if I were to use it personally. It may perhaps be used in low(er) doses if it is simply being used for its ability to reduce SHBG's binding (1) to other steroids. In this respect, it may have synergy with other drugs since it has the ability to reduce SHBG and free up more testosterone for use in the body.

The only negative thing I have heard about this drug is that in high doses (10+mg) virilization has been seen in women (14) and there has been at least one case of testicular tumors, and one case of a guy who suffered adverse effects from 5 years of high-dose use of OT (2)(4). It should be noted that the former East Germans did many experiments with this drug in high doses though, and found it to be a very suitable compound for their athletes. Many of the women suffered virilization at higher dosages, though. During the 68-72 Olympic cycles, the East German Sports OT program made its biggest impact. It was around this time that the East German weightlifters were taking over 10g/year of OT, and their leading male sprinter was taking under 730mgs/year of OT (14). I think this tells me that for real weight gains and huge gains in the weight room, you're going to need bank-breaking doses of this stuff. On the bright side, if you are an athlete looking to get faster, a little bit of OT will get you there pretty easily and with minimal (if any) side effects. I think that its inability to cause negative side effects and its ability to produce a favorable increase in lean body mass, thus, causing a favorable increase in strength/speed makes this substance popular. An athlete's strength: bodyweight ratio is what turned the East German coaches and scientists on. It must be noted that, at the time, this stuff was mostly undetectable and that was certainly a sought after trait by the East Germans who were looking to circumvent the drug testing procedures of the IOC. Now, of course, OT is detectable once it's administered to man because three major metabolites are formed: 6 beta-hydroxy-turinabol, 6 betas, 12-dihydroxy-turinabol, and 6 beta, 16-dihydroxy-turinabol (5)(8)(9). All of those metabolites are now detectable by drug screeners. In much smaller quantities at least another three metabolites are excreted, one of which could be identified as 17 epi-turinabol (5), and is easily detected by modern drug tests. No measurable amounts of OT itself are detected in any of the urine samples investigated in sport's doping procedures, but the presence of the metabolites is enough to warrant a positive result and a failed test. Keeping all of this in mind, it is still important to note that the rate of metabolism and urinary excretion or Oral-Turinabol is reasonably fast (5), even though it is technically eliminated biphastically (in two stages) by the body with a terminal 16hr ½ life (1). I thank the sports-doping-party-poopers (The NCAA and IOC). OT is notorious for increasing the time it will take for your blood to clot because it has spontaneous fibrinolytic properties. "Fibrinolytic effects" means that the destruction of fibrin (an insoluble fibrous protein produced in the liver from the soluble protein) is happening in your body. Fibrinogen is important during the blood

clotting process. It is a soluble protein in the blood that is converted to insoluble fibrin by the action of the enzyme thrombin in response to tissue damage. (6)(7) Thus, you will bleed for longer than usual when on this stuff. Combine that with the fact that steroids raise your hematocrit and you'll be spending your entire morning trying to stop the bleeding if you cut yourself shaving. Well, that's probably an exaggeration, but not by much.

I've already told you that this stuff is a potent lean tissue builder, and good for cutting. But that's mostly of interest for bodybuilders. Now, with regards to athletics, what kind of results can we expect? Well, I was digging through the old East German literature, and found that they reported that their world class strength athletes were making some pretty remarkable improvements on OT over a 4 year Olympic training period: Male Shot-putters were adding 2.5-4m to their shot throws, 10-12m on their Discus throw, and 6-10m to their Hammer throws. Female athletes gained even more. Let's take a look at a chart representing the improvements made by one particular female strength athlete (she held the World Record for the shot put, at the time of her beginning OT administration) over the period of July 18 1968 through October 13 1972. During this time, she was taking OT and she improved her throw from under 18m to over 20m (yes, this is a 2m+ improvement to a world record holding throw in one Olympic Cycle). She was taking roughly 5-15mgs/day of OT in the beginning, but worked up to 35mgs/day before she was done with her Olympic cycle. Her throws even while "off" OT even improved a bit, leading to speculation that there are a lot of permanent gains to be had with OT. Anyway, here are the charts representing her intake of OT, as well as her improvements over her 4 year over her 4 year Olympic training regimen:



Effects of an androgenic-anabolic steroid, Oral-Turinabol, on the shot-put performance (in meters, y-axis) of a female athlete (code identification 1/68 in a, 1/69 in b, and 1/72 in c) directly photographed from the secret scientific report of Bauersfeld et al. (13), is one of the numerous examples documented and is chosen here because of its historic importanc. It is the first documented case of androgenic doping of a woman (for a detailed account, see ref. (11)). (a) 1968. The rectangle from July 28 to October 13 shows the period of drug administration, and the numbers above each date show the number of tablets taken per week (here, 14, or 10 mg per day). The curve presents the results of the specific competitions, showing the increase of strength and performance in a fully trained woman. At the time of the first drug application in 1968, the athlete had been well trained for almost 14 years. Under the influence of the drug, however, she gained unprecedented muscle strength and improved her records dramatically within a few weeks. (b) 1969. The steroid was given in three cycles and at various dosages, from 7 to 21 tablets per week (i.e., 5–15 mg daily). Without the drug, she could not reach 18 m, but when taking the drug, she improved her world record once more, to 20.10 m. (c) 1972. She took even more of the androgenic hormone, with daily dosages of up to 7 tablets per day (35 mg), in four cycles, for a total androgenic load of 1450 mg for the year. This led to her top performances in the winter indoor season (left curve) as well as in the summer (right curve) and another personal best (20.22 m). Note the much lower performance at times off the drug or after only short periods of androgenization. Also, after 4 years of systematic androgenization, her basic strength level when not taking the drug had also increased by ~1 m, indicative of a residual effect/ (14).

Did all of this work for anyone else? Well, as I told you, virtually everyone who was involved with the East German Olympic Training program was on some kind of steroids, but OT was by far the most popular. They had access to some pretty wierd stuff, too, like intranasal testosterone, etc…

So, back to OT, it is notable from my readings on this compound that women saw much more positive effects from OT did than men (this is generally true of all steroids). Women also showed more side effects and generally found the side effects to be more severe and unbearable than their male counterparts. Unfortunately, they sometimes tended to use higher dosages than the men did; often up to 2 xs as high. Let's take a look at their typical yearly doses:

Some documented dosages of androgenic-anabolic steroid (Oral-Turinabol)1 taken by female GDR medal winners (track and field) in Olympic Games, World Championships, and European Championships (2):

Annual dosage of OT in mgs followed by events

3680 Shot-put
3190 Discus
2900 Shot-put
2615 Shot-put
2590 Shot-put
1670 Sprint
1560 Hurdles
1480 Hurdles
1474 Sprint
1460 Sprint

1450 Shot-put
1405 Sprint
1380 Heptathlon
1375 Sprint
1340 Heptathlon
1255 Discus
1230 Heptathlon
1230 Hurdles
1185 Javelin

1.Additional injections of testosterone esters have not been considered here. 2. At least 12 of the drug-receiving competitors listed in this table set world records. In keeping with Journal policy regarding confidentiality of patients and subjects, the names of subjects have been omitted.

Shocked? Don't be. This was during the cold war, and victory in the Olympics was seen as a victory for a certain way of life and a certain ideology; defeat was unthinkable and unacceptable. Is the recent reappearance of Oral-Turinabol on the black market going to change athletics or bodybuilding dramatically? No, I doubt it. A combination of price ($1/10mgs average) and availability may cause this stuff to remain an understated tool at our disposal. It is, however, a viable tool in a lean mass cycle, cutting cycle, or any athlete's drug intake routine.

As a final reference, I'll give you an example (direct from the East German State Doping Program's reports) on how they used OT throughout the year, and with various other drugs (like Test Prop, for example):

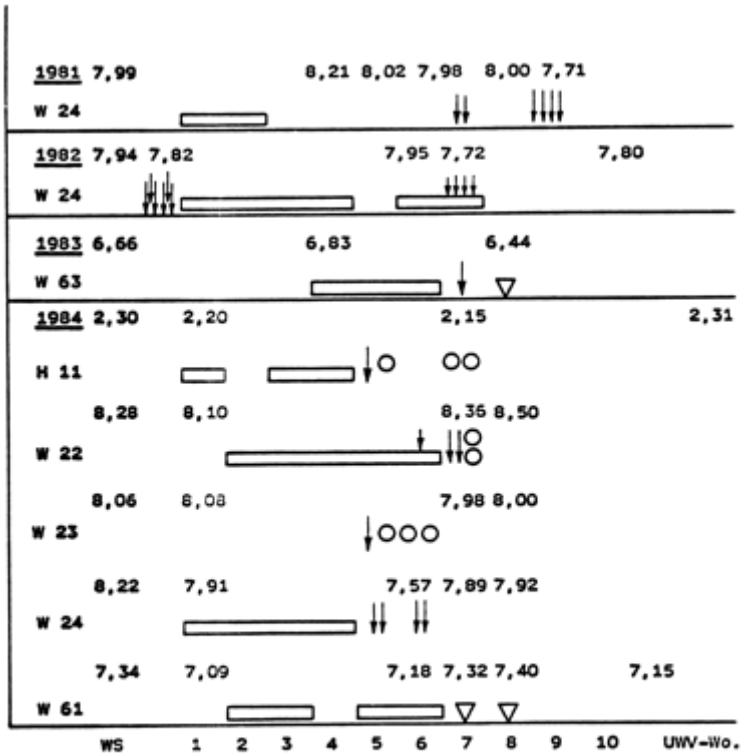
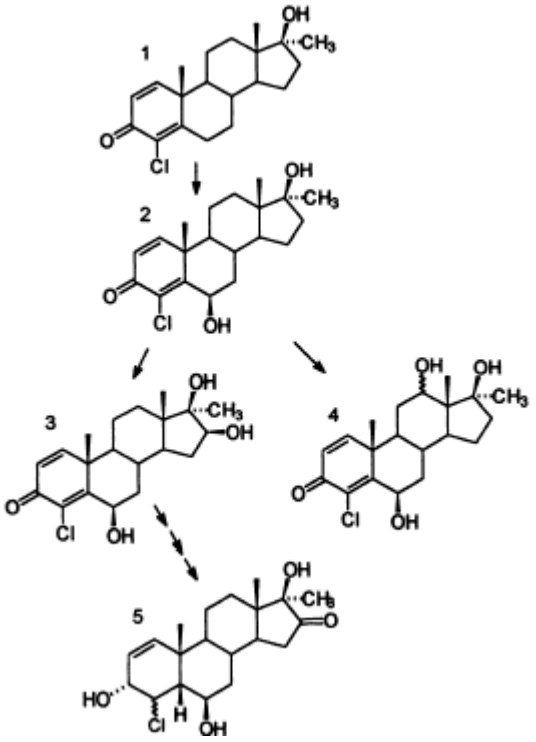


Abb. 8: Anabole und spezielle Vorbereitung auf den Oahres-Wettkampfhöhepunkt im Rahmen der UWV im Olympiazyklus 1980/84 am Beispiel ausgewählter Weitspringer (W) und eines Hochspringers (H) in Verbindung mit den in diesem Zeitraum erreichten Wettkampfleistungen

Anabolic and special preparation for the top competition of the year during the immediate preparation period in the Olympic cycle 1980/84. The example examines some selected long jumpers (W) and a high jumper (H) in combination with the results of competitions during this time. Example (from hundreds of evaluations) showing typical administration patterns of orally taken synthetic anabolic-androgenic steroids (Oral-Turinabol, periods of application denoted by rectangles) and injections of testosterone esters [arrows, 10 mg of testosterone propionate (TP); triangles, 25 mg of TP; circles, 100 mg of testosterone enanthate plus 1500 IU of hCG], here given to high (H) and long (W, Weitsprung) jumpers during the last 10 weeks before a major international competition in 1981–1984 [immediate preparation period (UWV), in weeks, is indicated on the x-axis; WS, competition series preceding the UWV; the competition results (in meters) are shown immediately above the specific drug application symbols].(14)

Here's how Oral Turinabol is metabolized in your body:



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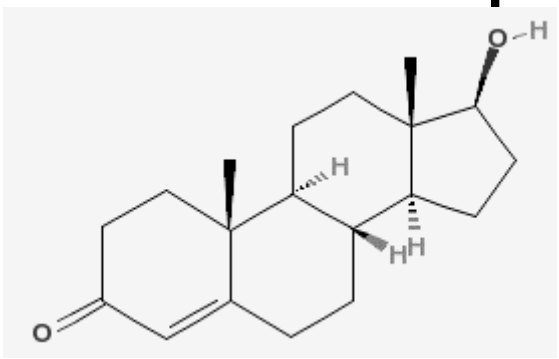
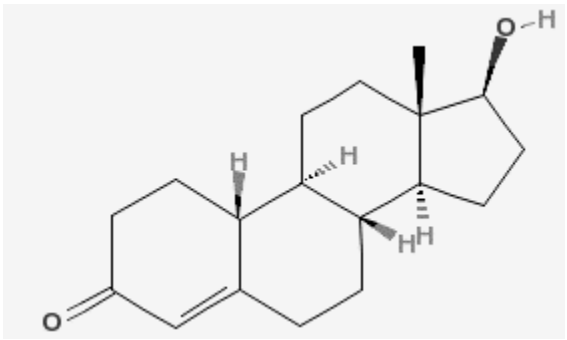
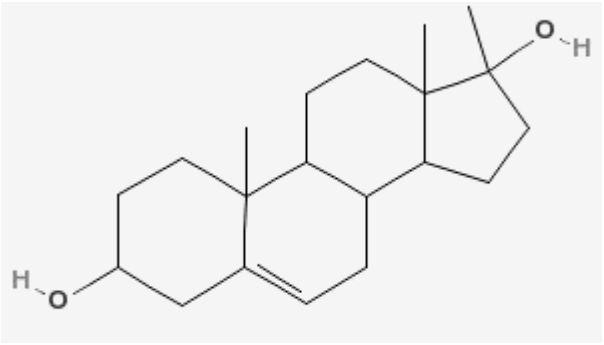
Spectriol

(Testosterone and Nandrolone shown, followed by Methandriol)

(Testosterone + Nandrolone + Methandriol)
[17b-hydroxy-4-androsten-3-one + 19-nor-androst-4-en-3-one-17beta-ol + 4 chloro testosterone]
Testosterone base + cypionate ester. + Propionate ester+ Hexahydrabenzoate ester
Formula: C27 H40 O3.
Molecular Weight: 412.6112
Molecular Weight (base): 288.429
Formula (base): C19 H28 O2
Melting Point (base): 155C
Effective Dose (Men): 200-2000mg+ week.
Effective Dose (Women): Not recommended
Active life: 12 days.
Detection Time: Up to 3 months
Anabolic/Androgenic ratio: 100/100.

Nandrolone base + phenylpropionate ester
Formula (base): C18 H26 O2
Formula (ester): C9 H10 O2
Molecular Weight (base):274.4022
Melting Point (base): 122-124°C
Active life: 15 days
Detection Time: Up to 18 months
Anabolic/Androgenic ratio: 37:125

Methylandrostenediol dipropionate
Formula: C20 H32 O2

Formula (base): C20 H32 O2
Formula (ester): C3 H6 O2
Molecular Weight: 304.4716
Molecular Weight (base): 304.4716
Molecular Weight (ester): 74.0792
Melting Point (ester):21.5C
Effective Dose (Men):350mg week.
Effective Dose (Women): 25mg per day.
Active life: 3 days
Detection Time: 2 weeks
Anabolic/Androgenic ratio: 30-60/20-60

Spectriol has the dubious distinction of having three totally separate compounds in it, one having 3 totally different esters, and all three are in an mg/ml concentration that is too low to do a damn thing! This product is made by RWR in Australia. They have made a name for themselves by producing interesting and unique blends of different compounds, esters, and combinations of both.

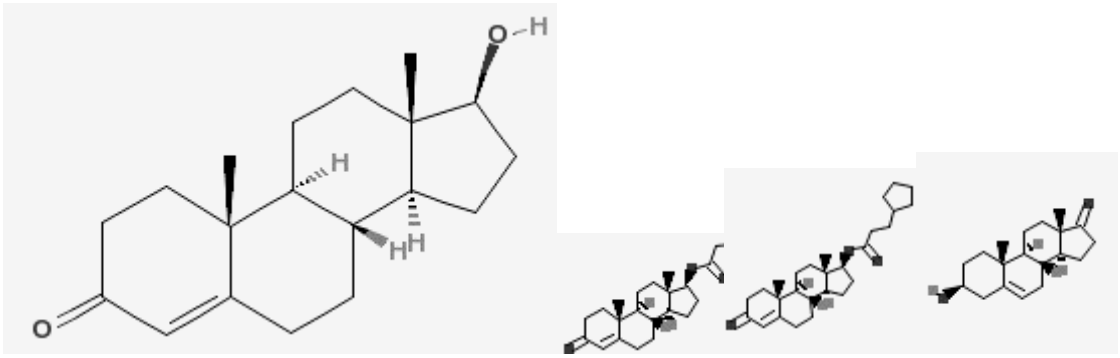
Let's see how Spectriol breaks down, per ml:

Methandriol Dipropionate: 20mgs
Nandrolone Phenylpropionate: 15mgs
Testosterone Propionate: 10mgs
Testosterone Cypionate: 10mgs
Testosterone Hexahydrobenzoate: 10mgs

And all of this comes in a 10ml multi use vial. Unfortunately, this equates to 30mgs of testosterone, 15 mgs of Nandrolone, and 20mgs of Methandriol per ml. You'll need a minimum of a bottle (or 2) per week of this stuff. Realistically, that's 20mls of oil in your body every week and a lot of sore injection sites that can't be kept up for very long. Lets look at it this way: if you shoot this stuff yourself, rotating 4-6 injection sites, you'll still be shooting it into areas that may not have recovered from the last shot you put in there. I just don't think too many people will keep that up for too long.

This stuff may be useful for women, perhaps shooting one ml per week.

Sten



(Testosterone shown, plus testosterone with propionate and Cypionate ester, and DHEA)
(Testosterone Cypionate &Propionate + DHEA)
[17b-hydroxy-4-androsten-3-one/17-(1-oxopropoxy)-(17beta)-androst-4-en-3-one + 3beta-Hydroxy-5-androsten-17-one]
Testosterone base + cypionate ester. + Propionate ester
Molecular Weight: 412.6112
Molecular Weight (base): 288.429
Formula (base): C19 H28 O2
Melting Point (base): 155C
Effective Dose (Men): 200-2000mg+ week.
Effective Dose (Women): Not recommended
Active life: 12 days.
Detection Time: Up to 3 months
Anabolic/Androgenic ratio: 100/100.

Molecular Weight (DHEA): 412.6112
Formula (DHEA): C27 H40 O3,
Melting Point (DHEA) 90, 149 - 151 °C
Manufacturer: Atlantis, MX 120mg/2ml
Effective Dose (Women): Not recommended
Average Active Life: +/- 1-1.5 weeks

(2ml of Sten contains 25 mg testosterone propionate, 75mg testosterone Cypionate, and 20mg DHEA)

Sten, yet another blended steroid, is similar to Testoviron, but it has different dosing with the addition of DHEA. Specifically, this blend is made up of testosterone propionate and testosterone cypionate, as well as a steroid called dehydroepiandrosterone, or better known as DHEA. DHEA is a hormone produced by the adrenal cortex as well as the brain. Some of this hormone is actually converted to testosterone in males and estrodiol in women (1).

The function of DHEA in the body is not clearly understood. For starters, unlike testosterone, there is no receptor for DHEA or its close relative DHEAS. It is also non anabolic receptor mediated, meaning its action has nothing to do with the anabolic receptors in your body. Let's figure out exactly what it does and how it is beneficial to us. For starters, Dehydroepiandrosterone is well known to decrease body fat significantly (3)(4). It has been shown to reduce both abdominal fat as well as

visceral fat (5). This makes Sten a very exciting drug, as it contains a steroidal fat-burner as well as a short and long acting testosterone.

Obviously, Sten also contains testosterone, so it would be appropriate to have a brief review of that compound as well. Testosterone is known to cause strength and muscle growth. The most obvious mechanism by which testosterone induces muscle growth is that it promotes nitrogen retention in the muscle (6) and the more nitrogen the muscle holds, the more protein the muscle stores. Testosterone can also increase the levels of another anabolic hormone, IGF-1, in muscle tissue (7). This hormone is the mediator of Growth Hormone and also (as the name implies) causes muscle growth. Testosterone can help protect your hard earned muscle from the catabolic (muscle wasting) glucocorticoid hormones (11), thus inhibiting the actions of them. Testosterone has the ability to increase red-blood cell production (12), and a higher RBC count may improve endurance by highly oxygenating the blood going to your muscles. More highly oxygenated blood in your muscles will improve recovery from strenuous physical activity.

Sten would be used very similar to a Sustanon-type blend. Sten is not nearly as common as it was 5 years ago, but it can still be found in some parts, especially Mexico. Male users would want to take a dosage range of 200-400mg/wk for an effective range. Intermediate users would use a dosage of 400-800mg/wk, while advanced users could go as high as 1000mg/wk. This compound should not be recommended to women even in low doses; although the more adventerous women I know have tried 1/2 an amp/week of it. Remember ladies, testosterone has very strong virilizing properties in women such as deepened voice, increased body hair, acne, and clitoral hypertrophy.

The testosterone contained in Sten can be converted to other unwanted by-products also. The 5-alpha-reductase enzyme can convert the testosterone into dihydrotestosterone, or as its better known, DHT. DHT is responsible for mens' hairloss and for prostate hypertrophy. Anti-DHT drugs such as Finasteride can be taken to block this conversion and offset most of the possible side effects. Some men will be much more genetically prone for hair loss, which will greatly magnify the effects of DHT.

A second by-product produced by exogenous testosterone administration is, of course, estrogen. The aromatase enzyme can convert testosterone into estrogen. The rate in which it converts will vary depending on the dose and will vary from person to person. The top symptoms include bloating, gynecomastia, elevated blood pressure, acne, and increase in cholesterol levels. To combat this, the use of anti-estrogen compounds is highly recommended.

Users of this compound report great gains with testosterone in general. It can be used in cycles planned to gain mass or lose fat. Gains usually come quickly and are maintained well with proper post cycle preventions.

Testosterone is usually considered the base compound of any cycle. After all, it is the primary anabolic hormone in the male body. For this reason, Sten can be stacked with any other compound desired. The most popular combinations are with Dianabol, Equipoise, Deca, or Trenbolone.

Sten contains only natural hormones. Partly for this reason, the drugs contained in

Sten are only detectable for approximately 3 months. This makes Sten a good choice for those who are only seasonally tested.

Although a blend of esters, the longest active life is reported to be just around 2-3 weeks. The length of this life is attributed to the testosterone cypionate contained in Sten. Ideally, Sten should be injected at least every third day in order to properly utilize the testosterone propionate in it while giving stable levels of testosterone in the blood.

I have to admit, this is really the only blended testosterone product I will reccomend, and this is for several reasons, really. For starters, there are absolutely zero known fakes of this product. The second reason is that it's absurdly cheap When I was last in Mexico, it was less than $3USD for a box of 2 amps (2mls each), each amp containing 25mgs of testosterone propionate, 75mgs of Cypionate, and 20mgs of DHEA. This means you get 200mgs of testosterone, plus 40mgs of the fat-burning DHEA, for half the price of an amp of Sustanon.

As a final note, I never smuggled a hundred amps of Sten from Mexico back into the U.S. of A. in an industrial sized suntan lotion bottle.

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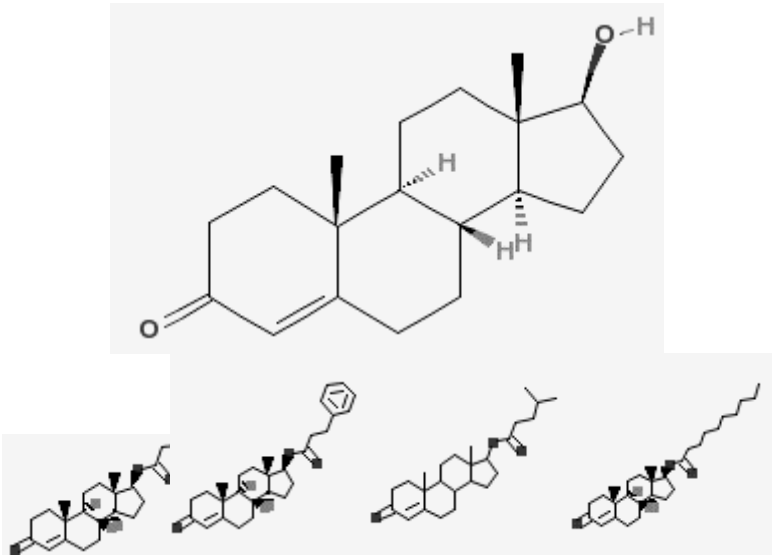
Sustanon 250



(Testosterone shown, plus Testosterone with Propionate, Phenylpropionate, Isocaproate, and Decanoate esters)
17b-hydroxy-4-androsten-3-one
Testosterone base + 4 different esters
Propionate, Phenylpropionate, Isocaproate, Decanoate
Formula (base): C19 H28 O2
Molecular Weight (base): 288.429
Molecular Weight, Esters:
Propionate: 362.5082
Phenylpropionate: 438.6058
Isocaproate: 404.5886
Decanoate: 460.6958
Formula (base): C19 H28 O2
Melting Point (base): 155
Manufacturer: Organon
Effective Dose (Men): 500-2000mg/ week
Effective Dose (Women): Not recommended
Active life: Up to 3 weeks
Detection Time: 3+ months
Anabolic/Androgenic ratio:100/100

This product was developed by Organon as an ideal HRT (Hormone Replacement Therapy) solution, and it was thought at the time that the different esters would be able to provide a constant release of Testosterone over a months time. Sustanon is a blend of different estered testosterones (4 of them): testosterone propionate - 30 mg, testosterone phenylpropionate - 60 mg, testosterone isocaproate - 60mg, and testosterone decanoate -100 mg.

This drug was highly sought after as a "superior" version of testosterone in the late 80's and through the mid 90's. No doubt this is partly due to the very nice write-up Dan Duchaine gave it in his newsletters. However, let's keep in mind that this drug was designed for convenience, not athletics or bodybuilding. The advantage to this drug, according to the manufacturer, is that it can be injected once a month, and the

different esters would provide different timed releases over that month, and the patient would therefore only need to visit the doctor once a month for his shot. For athletes or bodybuilders (who routinely use between half a gram and a gram of testosterone per week), this product is really no better than any other form of injectable testosterone.

Lately, it seems that this product has fallen out of favor with Steroid.com members, as many feel that the inclusion of the Propionate and phenylpropionate estered forms of testosterone in this blend would necessitate shooting every other day. This stems from the fact that testosterone propionate would be shot every other day at least, and testosterone phenylpropionate would generally be shot every third day.

Sustanon will do exactly what other forms of testosterone will do:

Testosterone will cause both muscle growth as well as fat loss. It sends a message to muscle cells to store more contractile protein (called actin and myosin), thus making your muscles grow. It also protects your muscles from catabolic (muscle wasting) glucocorticoid hormones (1). Thus it is often said that testosterone is not only anabolic, but it is strongly catabolic. Not only does it cause an increase in size of the muscle fibres (hyperfascia) but it also can change the appearance and the actual number of muscle fibres (Hyperplasia) (2). Testosterone has the ability to increase erythropoiesis (red blood cell production) in your kidneys (4), and a higher Red Blood Cell (RBC) count may improve endurance by producing more highly oxygenated blood. More RBCs can also improve recovery from strenuous physical activity. Agression levels often rise dramatically with the use of any exogenous testosterone (3). Testosterone improves muscle contraction by increasing the number of motor neutrons in muscle (5) and improves neuromuscular transmission (6). It also promotes glycogen synthesis (7)

Since Sustanon is simply a form of (well actually 4 forms of) testosterone, we also know that administration of this compound will produce a dose respondant curve (10). A what? Yeah, basically, a "dose respondant curve" is the fancy way of saying "the more you take, the bigger you get." This is true of Sustanon as well as for every form of testosterone, up to a point.

Unfortunately, Sustanon will also do all of the bad things that any form of testosterone is known for: It will convert to the female hormone estrogen (via a mechanism known as aromatization) by the (you guessed it) aromatize enzyme. Excessive estrogen can lead to unwanted side effects, such as acne, the growth of breast tissue (gynecomastia), fat gain and reduced fat breakdown, loss of sex drive, testicular shrinkage and water retention. Water retention can increase blood pressure weakening blood vessels over time. Unfortunately, this isn't all it does: it can also interact with the 5 alpha-reductase enzyme. This interaction converts the testosterone to Dihydro-testosterone (DHT), a more androgenic form of the parent hormone. DHT has a high binding affinity to the tissues of the scalp resulting in hair loss in loss in users who suffer from male pattern baldness. DHT can affect the prostate as well, making it larger. This swelling can cause the gland to press against the bladder causing urinary problems. Drugs called 5alpha-reductase inhibitors can prevent these symptoms without blocking testosterone's anabolic effects (8). Higher dosages of test can also negatively impact cholesterol, lowering HDL (9). Testosterone is probably the safest steroid around, but it can't be taken lightly, and Sustanon is no different.

The principal drawback to Sustanon is its cost. It can cost between $5 and $12 an ampule. Compared with Omnadren, Testoviron, or even Sten (other testosterone products featuring various blends of Testosterone), the cost makes it prohibitive. An equal amount of one of the aforementioned products can be had for less than half the average cost of an amp of Sustanon. Sustanon, therefore, is no better or worse than any other form of testosterone...if the price is right.

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4. Zhonghua Nan Ke Xue. 2003; 9(4):248-51
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6. J Appl Physiol. 2001 Mar; 90(3):850-6.
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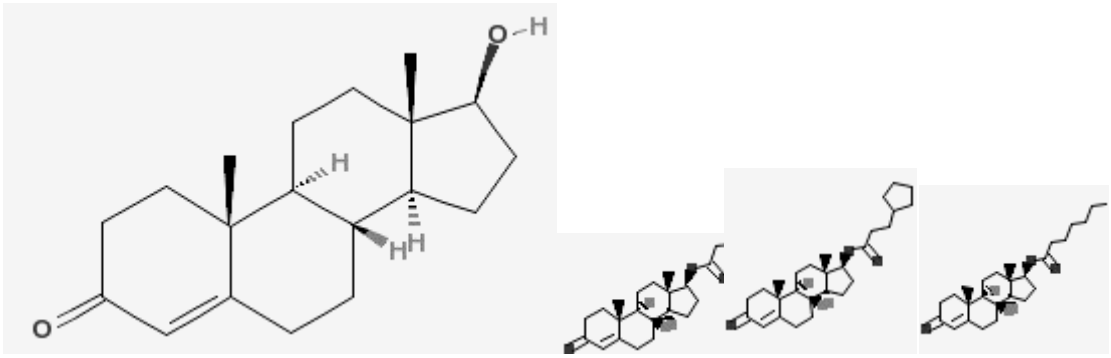
Test 400



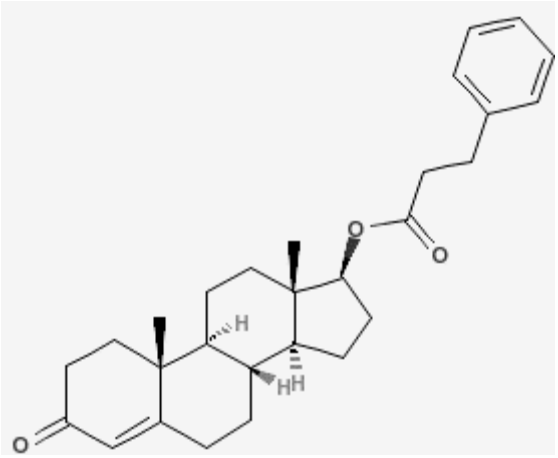
(Testosterone shown, plus Testosterone with Propionate, Cypionate and Enanthate esters)
(Testosterone + 3 esters)
[17b-hydroxy-4-androsten-3-one]
Testosterone base +enanthate+ cypionate ester. + propionate este
Formula (base): C19 H28 O2
Formula (ester)
Propionate: C3H6O2
Cypionate: C8 H14 O2
Enanthate: C7 H12 O
Molecular Weight: 412.6112
Molecular Weight (base): 288.429
Molecular Weight (ester)
Propionate: 74.0792
Cypionate: 132.1184
Enanthate: 130.1864
Melting Point (base): 155C
Effective Dose (Men): 200-2000mg+ week.
Effective Dose (Women): Not recommended
Active life: 8 day
Detection Time: Up to 3 months
Anabolic/Androgenic ratio: 100/100

Denkall produces this particular testosterone blend, and it has the highest concentration (and pain) of any of the mass-produced testosterone blends. It comes in with the following characteristics per ml:
Testosterone Propionate: 25mgs
Testosterone Cypionate: 187mgs
Testosterone Enanthate: 188mgs

This came out a few years ago, and was received very well by the average smuggler. You see, since it was available in Mexico for a reasonable price, and had 4 grams of testosterone per bottle, you could actually bring back double the amount (mg-wise) of testosterone in the same space. Really, this product is a smuggler's dream, and it flooded the streets of Venice and other steroid hot-spots soon after it hit the market.

I suppose the good thing about this product is that you can get a whopping dose of testosterone in a few milliliters of product. Other than that, it's very painful to inject and not really anything special over any other form of testosterone.

Testolent



(Testosterone shown with phenylpropionate ester)
(Testosterone Phenylpropionate)
[4-androstene-3-one, 17beta-ol]
(Testosterone Base + Phenylpropionate Ester)
Formula (base): C19 H28 O2
Formula (ester): C9 H10 O2
Molecular Weight(base): 288.429
Molecular Weight (ester): 150.174
Melting Point (base): 155
Melting Point (ester): 20°C
Manufacturer: Organon
Effective Dose (Men): 350-1,000mgs/week
Active life: 5 days
Detection Time: Up to 6 weeks
Anabolic: Androgenic ratio: 100:100

This is a pretty rare version of testosterone, as it has the phenylpropionate ester attached. This ester is much more commonly attached to the nandrolone base compound, giving us Durabolin (often called NPP, which is short for Nandrolone Phenylpropionate). Here, the ester is attached to the testosterone base compound, giving a short/medium estered product, which results in an active life of 4-5 days. Clearly, you'd get best results shooting this compound every fourth day, or twice a week. Other than the ester, there's not much to say about Testosterone Phenylpropionate (TPP), which hasn't been said already about testosterone in general. Here's a refresher course on it, nevertheless.

You may experience less water retention with TPP when compared with other, longer acting versions of test, probably somewhere between that experienced with testosterone propionate and cypionate. Anyway, testosterone promotes nitrogen retention in the muscle (1), which is highly desirable because the more nitrogen the muscle holds the more protein the muscle stores, and the bigger the muscle gets. And that's why we're jabbing ourselves with a needle full of TPP, right? Testosterone also has the ability to increase the levels of the highly anabolic hormone, IGF-1, in muscle tissue (2). IGF-1 is highly anabolic and can promote muscle growth, and is thought to mediate the effects of Growth Hormone (GH). IGF-1 is also one of the few hormones positively correlated with both muscle cell hyperplasia and hyperphasia,

and this means it both creates more muscle fibers as well as bigger pure mass, IGF-1, GH, and testosterone would be a very nice combination for muscle growth. Testosterone also has the ability to increase the activity of satellite cells (3). These cells play a very active role in repairing damaged muscle, and remember, exercise is perceived by your muscles as a form of damage. Testosterone also binds to the androgen receptor (A.R.) to promote all of the A.R dependant mechanisms for muscle gain and fat loss (4), although it has many important effects independent of this mechanism. Some of those AR-independent effects are Testosterone's ability to protect your hard earned muscle from the catabolic (muscle wasting) glucocorticoid hormones (6), and increase red blood cell production (7). Glucocorticoid hormones eat away muscle and a higher RBC count may improve endurance via better oxygenated blood.

Testosterone, once in the body, can be converted to both estrogen (via a process known as aromatization) as well as DHT. Estrogen is the main culprit for many side effects such as gyno, water retention, etc. DHT is often blamed for hair loss and prostate enlargement. Unfortunately, reducing estrogen will often reduce some of your gains, and reducing DHT will do the same, but doing so is preferable to going bald, or having prostate problems and/or unsightly acne.

I suppose you can use this stuff in conjunction with Nandrolone Phenylpropionate and you'd have a pretty cool cutting cycle with minimal water retention and the added benefit of having your injection frequency being exact, since both compounds you would have the same active life. Other than that, TPP has its place in a cycle as any testosterone would, and is no better or worse than others.

References:

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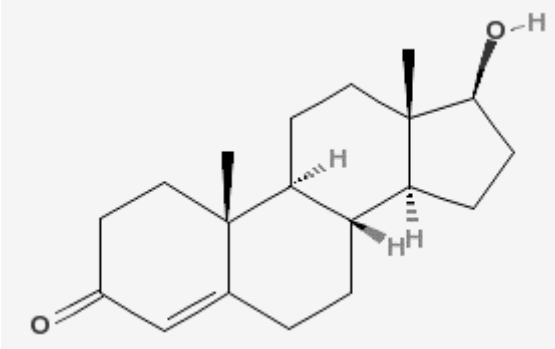
Testosterone Cyclohexylpropionate



(Testosterone shown without ester)
(Testosteronebase + cyclohexylpropionate ester)
[17b-hydroxy-4-androsten-3-one]
Formula (base): C27 H40 O3
Formula (ester): C9 H16 O2
Molecular Weight (base): 288.429
Molecular Weight (ester): 156.222
Melting Point (base): 155
Manufacturer: Theramex
Effective Dose: 400-1000mgs/week
Active life: 13.5days
Detection Time: 3 months
Anabolic/Androgenic ratio: 100:100

Basically, what we have here is a French testosterone preparation. This means it comes in all sorts of weird dosing schemes, which are actually not too weird once you understand why they exist. See, this stuff comes in 296mgs, 148mgs, and 37mgs ampules, of one milliliter each. Why the weird dosing? Well, actually, it's much less weird than you think. Those amps provide a very sensible 200mgs, 100mgs, and 25mgs respectively with this particular ester, combined with testosterone, at those available doses. As we all know, esters delay the release of a hormone, and Test-CHP has 9 carbons, which hints that it is a long acting ester comparable cypionate (8 carbons) or decanoate (10 carbons) with an active life of about 13.5 days. Obviously, this is a very long acting version of testosterone, and anecdotally, the longer esters, tend to produce more water retention. Therefore, this stuff would be good for bulking, therefore, and not really for cutting.

Testosterone, even with this absurdly long ester, is the hormone responsible for the different physical and mental (sexual) characteristics males tend to have in abundance (and females less so). It promotes sex drive, fat loss, helps with gaining and maintaining lean muscle mass and bone density and may even protect against heart disease (1). All other anabolic steroids are actually the testosterone molecule that has been altered in one way or another to change the properties of the hormone. But lets get back to testosterone. Test-CHP (or any form of testosterone) will bind to the A.R on fat cells resulting in fat breakdown and also prevents new fat formation (15). Testosterone CHP will also promote nitrogen retention in the muscle(2), which is good, as the more nitrogen the muscle holds the more protein the muscle stores, and the bigger the muscle gets. Testosterone has the ability to increase red blood cell production (9), and a higher RBC count may improve

endurance via providing more highly oxygenated blood to working muscles. More RBCs can also improve your recovery from strenuous physical activity, and has a "volumizing" effect on your muscles. Testosterone's anabolic/androgenic effects are dose-dependant, the higher the dose the higher the muscle building effect (10), regardless of ester. Testosterone can also increase the levels of another hormone (one of the super family of anabolic hormones), IGF-1, in muscle tissue (3). Testosterone also has the profound ability to increase the activity of satellite cells (4), which play a very active role in repairing damaged muscle. Testosterone binds to the androgen receptor tightly to promote A.R dependant mechanisms for muscle gain and fat loss (5), and it also significantly increases the concentrations of the A. R in cells critical for muscle repair and growth and A.R in muscle (4)(6). Testosterone induces changes in both shape and size of muscle cells, and also can change the appearance and the number of your muscle fibers (7). Testosterone-CHP administration will also protect your hard earned muscle from the catabolic (muscle wasting) glucocorticoid hormones (8). Testosterone greatly improves muscle contraction by increasing the number of motor neutrons in muscle (4) and also improves neuromuscular transmission (12). This is of special interest to strength athletes and sprinters. Test-CHP will also promotes glycogen synthesis (13) providing more fuel for intense workouts thus having a positive effect on endurance and strength. Finally, Testosterone-CHP will promote aggressive and dominant behavior (14), even though it is a still basically a French version of testosterone.

Testosterone-CHP use does have some unwanted side effects. It will convert to the hormone estrogen (via aromatization) by the now-infamous aromatize enzyme. This can lead to breast tissue growth in men (gynecomastia), increased fat gain and reduced fat breakdown, possible loss of sex drive, almost certain testicular shrinkage and finally water retention. Water retention with this product (because of its ester) will probably be very pronounced, and can increase blood pressure weakening blood vessels over a period of time. Testosterone can also interact with the 5 alpha-reductase enzyme, which converts the testosterone to Dihydro-testosterone (DHT), a more androgenic form of the parent hormone. This new compound has a high binding affinity to the tissues of the scalp resulting in hair loss in loss in users who suffer from male pattern baldness. DHT can affect the prostate as well, making it swell. This swelling can cause the gland to press against the bladder causing urinary problems, especially urinary difficulty.

Although Steroid.com has nearly 40K members, I haven't found any who have used this particular version of test, possibly because it was discontinued in 1991. If it were still on the market, or a UG began producing it, then it would be a good buy for those who are squeamish about needles, since once a week injections would be more than sufficient. Until then, though, it's of note purely as an academic object.

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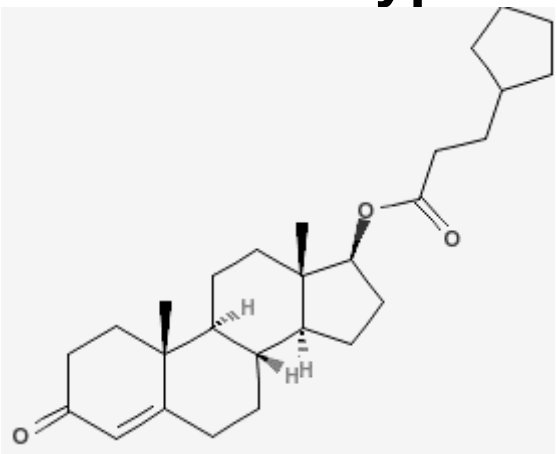
Testosterone Cypionate



(Testosterone shown with Cypionate ester)
(Testosterone base + cypionate ester)
[17b-hydroxy-4-androsten-3-one]
Formula (base): C19 H28 O2
Formula (ester): C8 H14 O2
Molecular Weight: 412.6112
Molecular Weight (base): 288.429
Molecular Weight (ester): 132.1184
Melting Point (base): 155
Melting Point (ester): 98 - 104 C
Manufacturer: Various
Effective Dose (Men): 300-2000mg+ week
Effective Dose (Women): Not recommended
Active life: 15-16 days
Detection Time: 3 months
Anabolic/Androgenic ratio:100/100

Testosterone is the hormone that makes men, well, men! Since it's basically the most commonly used form of testosterone in America at this time, let's take a look at testosterone cypionate, and examine the pros and cons of its ability to improve performance in athletics and bodybuilding,

Testosterone is the hormone responsible for many different physical and mental characteristics in males. It promotes sex drive, fat loss, helps with gaining and maintaining lean muscle mass and bone density, and may even protect against heart disease (1). All other steroids are actually the testosterone molecule altered soas to change the properties of the hormone. This would make testosterone the "father" of all other steroids employed by athletes today. In fact, testosterone is the standard for the anabolic/androgenic ratio we use—it's a "perfect" 100 score, against which we measure all other steroids.

As I previously stated, testosterone is a highly anabolic and androgenic hormone, it has an anabolic (muscle building) rating of 100, making it a good drug to use if one is in pursuit of more size and strength. And if you aren't in pursuit of more size and strength, then why would you be reading this, right? Well, let's get on with it and look at exactly what makes testosterone a good mass builder. First, testosterone

promotes nitrogen retention in the muscle (2). The more nitrogen the muscle holds the more protein the muscle stores. Testosterone can also increase the levels of another anabolic hormone, IGF-1, in muscle tissue (3). Testosterone also has the amazing ability to increase the activity of satellite cells (4). These cells play a very active role in repairing damaged muscle. Testosterone also binds to the androgen receptor to promote A.R dependant mechanisms for muscle gain and fat loss, (5) it also significantly increases the concentrations of the A. R in cells critical for muscle repair and growth and A.R in muscle (4)(6). Testosterone induces changes in shape and size, and also can change the appearance and the number of muscle fibres (7). Androgens like testosterone can protect your hard earned muscle from the catabolic (muscle wasting) glucocorticoid hormones (8), thus inhibiting their action. In addition, Testosterone has the buy steroids online ability to increase red blood cell production (9), and a
higher RBC count may improve endurance via better oxygenated blood. More RBCs can also improve recovery from strenuous physical activity. As you may have suspected, testosterone's anabolic/androgenic effects are dose dependant; the higher the dose the higher the muscle building effect (10).

Steroid.com members report massive strength gains while using testosterone (11). Testosterone improves muscle contraction by increasing the number of motor neutrons in muscle (4) and improves neuromuscular transmission (12). It also promotes glycogen synthesis (13) providing more fuel for intense workouts thus increasing endurance and strength. Also note that the water retention from testosterone use will cause the muscle to spring back when compressed during the lowering of a weight. Testosterone promotes aggressive and dominant behavior (14); this explains the boost of confidence that gives athletes the mental edge they need to move the heavy iron.

Testosterone is also good at promoting fat loss. Having an anti-estrogenic effect, it creates an ideal fat loss environment. Test binds to the A.R on fat cells resulting in fat break-down, and also prevents new fat formation (15). Another indirect action of fat loss that test produces is the nutrient portioning effect it has on muscle and fat. Since the body is building muscle at an accelerated rate, more of the food you eat is shuttled to muscle tissue and away from fat.

Is there anything testosterone can't do?

Testosterone use does have some unwanted side effects that Steroid.com members should be aware of. Testosterone can convert to the female hormone estrogen (via aromatization) by the aromatize enzyme. Excessive estrogen can lead to some nasty side effects: breast tissue growth in men (gynecomastia), fat gain and reduced fat breakdown, loss of sex drive, testicular shrinkage and water retention. Water retention can increase blood pressure weakening blood vessels over a period of time. A class of drugs, called aromatize inhibitors, to stop the testosterone from converting to estrogencan easily stop the estrogenic side effects. The use of HCG during a testosterone cycle can prevent the testicular shrinkage. Testosterone can also interact with the 5 alpha-reductase enzyme. This action converts the testosterone to Dihydro-testosterone (DHT), a more androgenic form of the parent hormone. DHT has a high binding affinity to the tissues of the scalp resulting in hair loss in loss in users who suffer from male pattern baldness. DHT can affect the prostate as well, making it swell. This swelling can cause the gland to press against the bladder causing urinary problems. Drugs called 5alpha-reductase inhibitors can prevent these symptoms without blocking testosterone's anabolic effects (16). Higher dosages of

test can also negatively impact cholesterol, lowering HDL (17). Constantly ignoring this can lead to a series of serious health problems down the road.

Testosterone levels decrease as we age, with levels dramatically falling at 50-60 years of age (18). Low test levels lead to loss of muscle mass and stregth, gains in fat, and loss of sex drive (18). So, it is a good idea to replace testosterone with an outside source. Supplementing testosterone in older adults with sub-optimal levels may prevent or delay Alzheimer's disease and other cognitive diseases, protect nerves, and regenerate motor units; improve mood, memory, appetite, sex drive, and bone mass; and may decrease the risk of heart attack and stroke (19)(20)(21)(22). This shows that test replacement significantly improves the quality of life and may be a good option for middle-aged men. Caution should be taken when using higher dosages because of an increased risk of adverse side effects (23).

Testosterone cypionate is an injectable oil, which contains testosterone with the cypionate ester attached to the testosterone molecule. The ester denotes the release pattern of the test after it is injected into the body. This particular ester gives the testosterone an active life of 15-16 days, although blood levels of this drug fall sharply five days after post-administration, testosterone levels are still above baseline after a week (24). Stable blood levels can be achieved with injections once per week. Steriod.com members often administer the drug twice weekly or every three to five days. On a funny note, many steroid users believe that test cyp is more, or less powerful, than the other popular injectable testosterone enanthate. The truth is that they are almost identical in release patterns, so there is virtually no difference between the two. However, as far back as the printing of the first *Underground Steroid Handbook*, there has been speculation that Cyp has more "kick" than Enth.

Testosterone is highly versatile and should be considered the "base" of anabolic/androgenic steroid cycles because of its muscle building potential as well as for the fact that it prevents the loss of sex drive that sometime affects those who neglect to use it with other HPTA suppressive anabolics, (especially the 19-nor family). Test can be used for any body-building goal whether it's fat loss or muscle gain. An excellent drug for beginners, it's also cheap, making it a top-notch choice for anyone interested in utilizing anabolics to reach their bodybuilding or athletic goals. With regards to this particular version of testosterone, you should be paying no more than $75 for a 10cc bottle of it, dosed at 200mgs/ml. Of course, as usual, prices fluctuate, but I'd recommend sticking with a reputable underground Lab, rather then Organon, UpJohn, or one of the many other expensive (and often counterfeited) companies.

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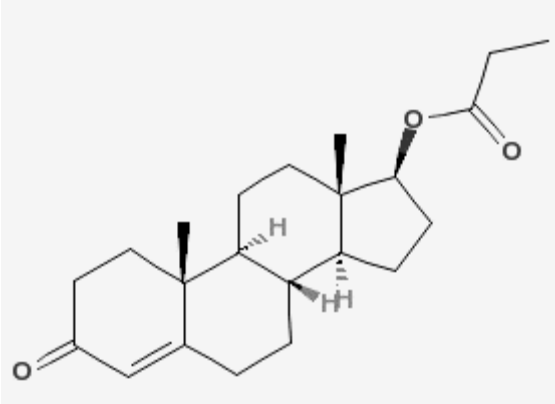
Testosterone Enanthate



(Testosterone shown with Enanthate ester)
(Testosterone base + Enanthate ester)
[17b-hydroxy-4-androsten-3-one]
Formula (base): C19 H28 O2
Formula (ester):C7 H12 O
Molecular Weight: 412.6112
Molecular Weight (base): 288.429
Molecular Weight (ester): 130.1864
Melting Point (base): 155
Manufacturer: Various
Effective Dose (Men): 300-2000mg+ week
Effective Dose (Women): Not recommended
Active life: 8 days
Detection Time: 3 months
Anabolic/Androgenic ratio:100/100.

Testosterone Enanthate is probably the most commonly used form of testosterone by both athletes and bodybuilders. Although I don't have any hard statistics on this, I'd be willing to bet that this form of testosterone is the most commonly used form of testosterone on the black market today. It's very effective for building muscle and strength, losing fat, and is cheap and readily available.

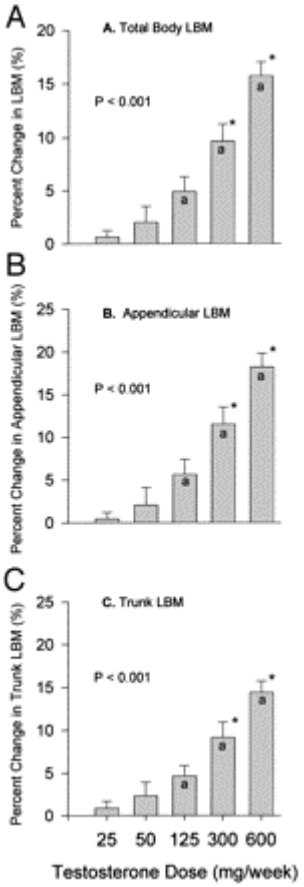
To understand exactly how Testosterone Enanthate (a.k.a. "test enth" or just "enth") builds muscle and burns fat, we'll take a look at androgens and what they do in the body. You see, hormones are substances secreted by one cell, which has an effect on the functions of another cell. Testosterone is manufactured in the Leydig's cells of the testes (in men). The adult male produces between 2.5 and 11mgs of Test per day.

Testosterone induces changes in shape and size, and also can change the appearance and the number of muscle fibres (7). Androgens like testosterone can protect your hard earned muscle from the catabolic (muscle wasting) glucocorticoid hormones (8), thus inhibiting their ability to send a message to muscle cells to release stored protein. Remember, Testosterone sends a message to muscle cells to store more contractile protein (called actin and myosin); glucocorticoid hormones send the opposite message. In addition, Testosterone has the ability to increase

erythropoiesis (red blood cell production) in your kidneys (9), and a higher Red Blood Cell (RBC) count may improve endurance via better oxygenated blood. More RBCs can also improve recovery from strenuous physical activity. Agression levels often rise dramatically with the use of exogenous testosterone (15).

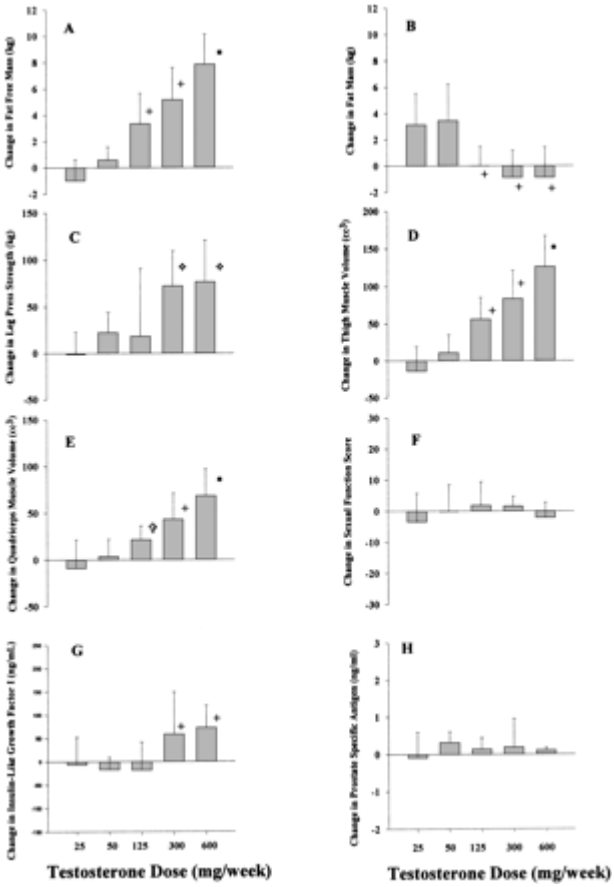
All of these great benefits are to be had with the use of test enth alone, but realistically, it will be part of a cycle containing one or more drugs. People who are bulking will probably choose Deca or Eq (possibly with Dbol as well) and those who are cutting will probably steer towards Eq and perhaps Trenbolone. Very often users will shoot this drug once or twice a week, but blood levels are still above baseline with this drug at around day eight (16). Common wisdom holds that the testosterone portion of any such cycle should be equal to or greater than any other injectable drug(s) portion (on a mg basis). I believe that you can get away with less, but in general, this is a good guideline.

As you may have suspected, Testosterones' anabolic/androgenic effects are dose dependant, the higher the dose, the higher the muscle building effect (10). Lets take a look at exactly what kind of results we can expect from administration of Testosterone Enanthate:



*Effects of 20 wk of GnRH agonist plus TE administration on relative changes (mean ± SEM) in total LBM (A), appendicular LBM (B), and trunk LBM (C) (percent change from baseline) measured by DEXA. P values are results for ANOVA: *, P < 0.05 vs. all other dose groups for the multiple comparison tests using Student-Newman-Keuls; a, P < 0.05 vs. zero change* (11).

These charts show that the subjects in this test made a roughly 15% gain in Lean Body Mass from 20 weeks of 600mgs/week of testosterone Enanthate. That's pretty impressive, but I feel the following set of charts are more so:



*Change in fat-free mass (A), fat mass (B), leg press strength (C), thigh muscle volume (D), quadriceps muscle volume (E), sexual function (F), insulin-like growth factor I (G), and prostate-specific antigen (H). Data are means ± SE. *Significant differences from all other groups (P < 0.05); significant difference from 25-, 50-, and 125-mg doses (P < 0.05); +significant difference from 25- and 50-mg doses (P < 0.05); and significant difference from 25-mg dose (P < 0.05)*(14).

Now this is very interesting. You'll note that the most fat was lost by the group in this study who used the highest dose (600mgs/week), and the most fat free mass, strength, and muscle volume was gained when compared to any of the lower doses studied (14). Basically, the more testosterone you use (and this holds true for almost all steroids), the more you'll gain! I know that the last statement will ruffle some feathers in the "less is more" club, but that's too bad: more test = more muscle, more strength, more size, and less fat.

Did the men in this study experience side effects at the 600mg dose? Well, HDL cholesterol was lowered (but not total cholesterol or triglyceride levels), and two men got acne. Not exactly cause for a Senate Investigation, huh? (14). Of course, the usual nasty side effects you can get from any form of injectable testosterone are possible with testosterone enanthate (acne, hairloss, prostate enlargement, and

shutting down your body's own natural hormonal system, etc.), but they are very overstated or controllable in many instances.
A large percentage of those side effects occur from the body's ability to turn testosterone into estrogen via a metabolic pathway mediated by the aromatase enzyme. This process, known as aromatization causes a portion of testosterone to be converted to estrogen. Aromatase inhibitors (Arimidex and Letroaole, for example) can combat this effectively, and are usually necessary with doses over ½ a gram per week.

Now that I've told you all about this drug, let's talk about cost. You should be paying no more than $75 for a 10cc bottle of it, dosed at 200-250mgs/ml. This drug is relatively cheap to produce, the raw materials are very inexpensive, and should be reasonably cheap, especially since this drug should be a consideration for inclusion in any cycle. Of course, as usual prices fluctuate, but I'd recommend sticking with a reputable underground Lab, rather then Organon, UpJohn, or one of the many other expensive (and often counterfeited) companies.

References:

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5. Curr Pharm Biotechnol. 2004 Oct; 5(5):459-70.
6. J Clin Endocrinol Metab. 2004 Oct; 89(10):5245-55.
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8. J Lab Clin Med. 1995 Mar; 125(3):326-33.
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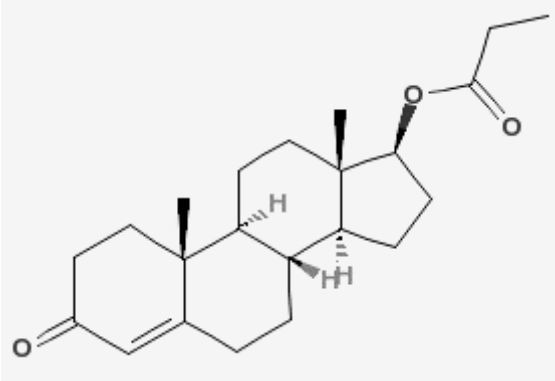
Testosterone Propionate



(Testosterone shown with Propionate ester)
(Testosterone + Propionate ester)
[4-androstene-3-one, 17beta-ol]
Formula (base): C19 H28 O2
Formula (ester): C3 H6 O2
Molecular Weight (base): 288.429
Molecular Weight (ester): 74.0792
Melting Point (base): 155
Melting Point (ester): 21C
Manufacturer: Various
Effective Dose (Men): 350-2000mg+ week.
Effective Dose (Women): 50-100mgs/week
Active life: 2-3 days
Detection Time: 2-3 weeks
Anabolic/Androgenic ratio: 100/100

As we all know, Testosterone was the first steroid to be synthesized. Now, it remains the gold standard of all steroids. First, we'll discuss Testosterone in general, then we'll examine exactly what the propionate ester is and how it works (together, testosterone propionate is often referred to as just "prop" or "test prop").

Testosterone's anabolic/androgenic ratio is 1:1. It is as much anabolic as it is androgenic. Actually, testosterone is the steroid on which all anabolic/androgenic ratios are based. If a steroid is 2:1, then compared with testosterone's ratio, it is twice anabolic as it is androgenic. Hence, we see from testosterone's ratio, it is both anabolic as well as androgenic.

So how exactly does testosterone build muscle? Well, Testosterone promotes nitrogen retention in the muscle (6), the more nitrogen the muscle holds, the more protein the muscle stores and the bigger the muscle gets. Testosterone can also increase the levels of another anabolic hormone, IGF-1, in muscle tissue (7). By itself IGF-1 is highly anabolic and can promote muscle growth. It is responsible for much of the anabolic activity of Growth Hormone (GH). IGF-1 is also one of the few hormones positively correlated with both muscle cell hyperplasia and hyperphasia (this means it both creates more muscle fibers as well as bigger fibers). All of this leads me to speculate that for pure mass, IGF-1, GH, and Testosterone would be a very effective combination. Testosterone also has the amazing ability to increase the

activity of satellite cells (8). These cells play a very active role in repairing damaged muscle. Testosterone also binds to the androgen receptor (A.R.) to promote all of the A.R dependant mechanisms for muscle gain and fat loss (9), but as we've seen, this isn't the only mechanism that promotes growth.

Testosterone has a profound ability to protect your hard earned muscle from the catabolic (muscle wasting) glucocorticoid hormones (11), and increases red blood cell production (12). As you may know, a higher RBC count may also improve endurance via better oxygenated blood. The former trait increases nitrogen retention and muscle building while the latter can improve recovery from strenuous physical activity, as well as increase endurance and tolerance to strenuous exercise.

Testosterone occurs naturally in both the male and female body, and as far as testing for it, typical tests don't work (i.e. testing for metabolites). Testosterone can be tested on a testosterone/epitestosterone ratio, a failing result usually being anything over 6 to 1, but there are other more effective tests currently in use and being developed by the usual party-poopers in the IOC and FDA. If you are using low doses of this drug and stop taking it 36-48 hours before a Test/EpiTest analysis, you can still pass!

Testosterone, once in the body, can be converted to both estrogen (via a process known as aromatization) as well as DHT. Estrogen is the main culprit for many side effects such as gyno, water retention, etc., while DHT is often blamed for hair loss and prostate enlargement. Naturally there are ways to combat this, such as using an anti-estrogenic compound along with testosterone, or even an estrogen blocker. DHT can be combated (on the scalp, to prevent hair loss) with compounds such as Ketoconazole shampoo (sold under the trade name Nizoral) as well as Finasteride (sold as Proscar in the 5mg version and as Propecia as 1mg tablets). Interestingly, this shampoo can also be used topically to combat acne on the face (or even the back if you're really flexible). Both of these methods for preventing hair loss and acne are reasonably effective. However, if you are not prone to hair loss, they may be wholly unnecessary. Male Pattern Baldness (MPB) is carried by the X chromosome, so if your mother's family boasts men with full heads of hair, then you are probably safe (unless those full heads of hair are all mullets). Naturally, as with most other steroids, your lipid profile and blood pressure are going to suffer a bit while on testosterone. This, of course is nothing that can't be controlled by watching your diet and doing your cardio, at least for the duration of the typical cycle (which for arguments sake, I'll assume is +/- 12 weeks). Let's be totally honest here, even a modest amount of exercise will improve your blood pressure and lipid profile (10), and if you aren't exercising, then why are you taking steroids?

To combat the aromatization of testosterone, you can simply take an aromatase inhibitor such as Arimidex. This and other Anti-estrogenic compounds are generally considered a must with testosterone doses over ½ a gram per week (500mgs). Amother side effect (as if acne and going bald aren't enough) is increased aggression. This is a hotly debated issue in steroid-culture. Generally the consensus is that if you are prone to being a jerk, you'll be a bigger jerk, if you aren't, then your temper will not get much worse (this is supported by research as well). Also, high levels of testing are generally associated with aggression and anti-social behavior in males with lower intelligence (1)(2). Guess what? Dumb people shouldn't use steroids at all, especially testosterone!

For many, the increased aggression found from increased testosterone levels is often a bonus, in the weight room as well as on the playing field. Let's not get started on its benefits in the bedroom!

Testosterone is also a relatively safe steroid to use, with some studies showing no adverse effects from 20weeks at 600mgs/week (3)! Personally, I have used up to 2 grams per week of various testosterones but now I prefer to keep my dose of it around ½ a gram.

Testosterone is usually attached to an ester (i.e. when you buy testosterone propionate, the subject of this profile, you are buying testosterone with a propionate ester attached). The ester determines how long it takes your body to dispose of the steroid in question, and propionate is the shortest ester available with a testosterone base (of course, testosterone suspension has no ester). There are enzymes, called esterases, in your body that have the function of removing the ester from steroids and leaving you with just the steroid molecule with the ester cleaved off. The heaviness of the ester chain, determines how long it takes the esterase to remove it. And that amount of time determines how long the drug stays active in your body. Great, right? Not really; the ester takes up "room" in the injection. Check out this chart:

Chemical = Formula = Molecular Weight = Mg of Testosterone

Testosterone (no ester) = C19 H28 O2 = 288.4mg = 100mg
Propionate = C3 H4 O = 56.1mg = 83.72mg
Cypionate = C8 H4 O = 124.2mg = 69.90mg

Here, we're comparing testosterone with no ester (suspension) to Test Propionate and Cypionate (basically the longest vs. shortest esters available with testosterone).

So you see, the longer the ester on the testosterone, the longer the steroid is active in your body, and the less actual test you get. This is because for every 100mgs of testosterone cypionate you inject, only 69.90mgs of it is actually testosterone—the rest is the cypionate ester, which must be removed. On the other hand, with the propionate ester, you'll get 83.72mgs of testosterone! The advantage to longer esters is that they need to be injected less frequently (test prop needs to be injected every other day while you can shoot test cyp once a week). The disadvantage to long estered steroids is that they contain less actual steroid. Anecdotally, most people from Steroid.com and other discussion boards who have tried differing esters on their various cycles agree: Testosterone Propionate causes the least side effects and the least bloating. For this reason, it's often the testosterone of choice in cutting cycles. On a personal note, it's the only form of testosterone I ever use, and it's the only one most women will use, due to the previously mentioned factors (as well as it's ability to clear your body quickly upon cessation in the case of side effects). Testosterone levels when you're using injectable testosterone propionate begin to decline sharply after the second day of use (5). Obviously this is not the drug of choice for those who are squeamish about injections; you'll be shooting this stuff every other day at least.

Also, as with most steroids, injected testosterone will inhibit your natural test levels and HPTA (Hypothalamic Pituitary Testicular Axis). A mere Hundred mgs of test/week takes about 5-6 weeks to shut the HPTA, and 250-500mgs shuts you down by week 2 (4).
Realistically, every cycle should contain testosterone. Go back and read that sentence again. A beginner's dose of testosterone (i.e. someone on their first or second cycle of AAS) would be in the 250-500mgs range. I wouldn't recommend

much less than 400mgs of test per cycle for anybody, beginner or not. And guess what? The more you use the more results you get. Frequently, the more side effects, too (3).

What stacks well with testosterone propionate? Everything! Many people's favorites are Eq (boldenone undeclyenate) or Deca (nandrolone decanoate), but anything will stack well with test prop. Tren (Trenbolone Acetate), Masteron, and/or Winstrol are also favorites for many on a cutting cycle, myself included. It's important to remember that since test prop has such a short ester, most people stack it with other short estered drugs. They need to endure frequent injections for the test prop to be effective, so they may as well be using other drugs requiring the same dosing protocol.

Finally, it's worth noting that sometimes a phenomenon strategy known as "frontloading" is employed with testosterone propionate. This is where double or triple the intended dose for the cycle is injected for the first two weeks; the user then switches to a longer ester. The reasoning behind this is presumably to get the blood levels of the drug up quickly in the hopes of seeing rapid results.

Of all testosterones available on the market today, Testosterone Propionate is the most expensive. This is both because it is in high demand (due to it's ability to avoid bloating the user as other testosterone's tend to do) and because the actual chemical is expensive compared to other tests. Expect to pay roughly $40-60 for a 10-20ml bottle dosed at 100mgs/ml, when buying from a reputable underground lab, expect to pay at least double that amount if you are buying human grade ampules or bottles from a major pharmaceutical company.

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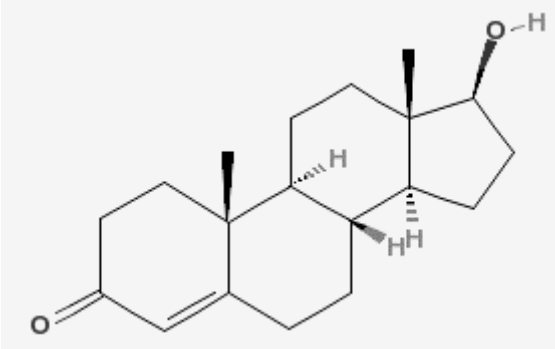
Testosterone Suspension



(Testosterone)
[17b-hydroxy-4-androsten-3-one]
Formula: C27 H40 O3
Molecular Weight: 288.429
Melting Point: 155
Manufacturer: Various
Effective Dose (Men): 350-1000mg/week
Effective Dose (Women): Not recommended
Active life:+/-1 day
Detection Time: +/-1day
Anabolic/Androgenic ratio:100/100

Testosterone Suspension is an injectable hormone in a water base that was developed and used for decades and is actually the first anabolic, androgenic steroid used. For the purpose of building mass, Testosterone Suspension has never been surpassed since it was first developed in the 1930's. Many underground Labs also suspend this product in propylene glycol or oil as well (which makes for a very painful injection). It has no ester attached; therefore no ester is calculated into the weight. This is extremely beneficial to the user since 100mg of testosterone suspension will yield 100mg of testosterone. This is unlike the other esterfied testosterones such as testosterone enanthate, which only yields 72mg of actual testosterone per 100mg of total weight. Testosterone suspension rises the storing of glycogen in the muscle cells and because it is dissolved in water it becomes effective immediately. Making it different from other esterfied hormones, it only keeps sustained and elevated testosterone levels for 2-3 days due to its micro-crystal design. This forces the user to inject on a daily basis, with better results coming from twice-three times a day use due to its short active-life with the effective dose ranging from 350-1000mg per week (50-140mg/day). One should practice site rotation and should practice injecting in the same spot only once per week at most. It should be noted that test suspension is usually a very painful shot, so it is often cut with something else, such as B-12, or other steroids. And yes, you can mix a water-based steroid with an oil based steroid in the same syringe. It looks like a lava lamp. There's no problem with injecting a mixture like this.

Note that due to the water base (not an issue if using a product suspending in propylene glycol or oil) the testosterone will most likely settle to the bottom of the vial and shaking the vial is needed in order to insure even dosing. This is true for all water based steroid suspensions.

As was noted before, testosterone can be considered one of the most powerful mass builders and testosterone suspension can be considered one of the most powerful of the testosterones simply due to the fact that it has no attached ester. This means that you are getting 100mgs of Test per 100mgs you inject. Suspension is the only version of Testosterone that can boast that claim. A growing reason why many athletes are choosing to use testosterone suspension instead of enanthate or other forms (besides the fact that it has a higher amount of pure testosterone resulting in greater results) is that it may be responsible for localized growth at the injection site, like winstrol. Most athletes will only use this form of testosterone in a bulking cycle because it usually is accompanied by high water retention, severe bloat, adipose storage, and gynomastia. This product also has a high level of aromitization into estrogen and coverts to DHT (dihydrotestosterone) as well. Of course, adding endogenous testosterone to your body will result in the shutting down of your own exogenous testosterone levels, as well as the hormones secreted which cause testosterone to be secreted by your testes.

Many times testosterone is not used by women because male secondary sex characteristics may start to appear in female users. However, testosterone suspension will allow women to site-inject and help problem areas common in women such as calves and inner thighs, and can be used in small enough doses, clearing the system quickly if sides develop. This advantage also means that one can pass a drug test a couple of days after the last injection. This is a great advantage to athletes who will be tested and still want the benefits of a mass drug which can not be tested for easily, many other forms of testosterone (such as Cyp or Enanth) can take 3 months to become undetectable.

One should be very happy with the results of the cycle, as long as the diet and training regimen are good. As I previously stated, testosterone is a highly anabolic and androgenic hormone, it has an anabolic (muscle building) rating of 100. This makes it a good drug to use if one is in pursuit of more size and strength. And if you aren't in pursuit of more size and strength, why would you be reading this, right? Well, let's get on with it and look at exactly what makes testosterone a good mass builder. First, testosterone promotes nitrogen retention in the muscle (2), the more nitrogen the muscle holds the more protein the muscle stores. Testosterone can also increase the levels of another anabolic hormone, IGF-1, in muscle tissue (3). Testosterone also has the amazing ability to increase the activity of satellite cells (4). These cells play a very active role in repairing damaged muscle. Testosterone also binds to the androgen receptor to promote A.R dependant mechanisms for both muscle gain as well as fat loss (5). Testosterone significantly increases the concentrations of the A. R in cells which are critical for muscle repair and growth.(4, 6). Testosterone induces changes in shape and size of your muscle fibres, and can change the actual appearance and the number of muscle fibres (7). Also, a note to both bodybuilders and athletes, many anabolic/androgenic steroids (like testosterone susprnsion, in this case) can also protect your hard earned muscle from the catabolic (muscle wasting) glucocorticoid hormones (8) that your body employs to maintain homeostasis. In addition, Testosterone has the added ability to increase red blood cell production (9), and a higher RBC count may improve endurance via better oxygenated blood. More RBCs can also improve recovery from strenuous physical activity, and this has obvious benefits for the hard training bodybuilder or athlete. As with 99% of other steroids, Testosterones' anabolic/androgenic effects are dose dependant, the higher the dose the higher the muscle building effect (10).

Testosterone suspension is best run for at least 8 weeks and depending on the

experience of the user one may choose to run much longer. Since this hormone is primarily used by more advanced users, other drugs are usually incorporated into the cycle. One should opt. for other mass drugs such as dianabol and deca-durabolin, since the goal of this cycle will most likely and should be for mass. The user should expect to see rapid muscle growth, water retention, and possibly extra fat deposits. Some athletes will also choose to inject Suspension before a workout or competition (this would increase aggression, and would be especially important for MMA competitors or those in a sport where aggression is a benefit). I've used it for this purpose and found it to be very useful. Many other athletes will also use it solely for this purpose; every day (painful) shots are not much fun for a typical 12 week cycle. It is for this reason that most people who use this drug employ it pre-workout and/or competition, and not much more often. A mere 100mgs pre-workout or competition is sufficient and would benefit competitive athletes enough to justify its inclusion in an in-season-cycle.

Lastly, you should be paying roughly $50 for a 10cc bottle of 100mgs/ml from any reputable underground lab.

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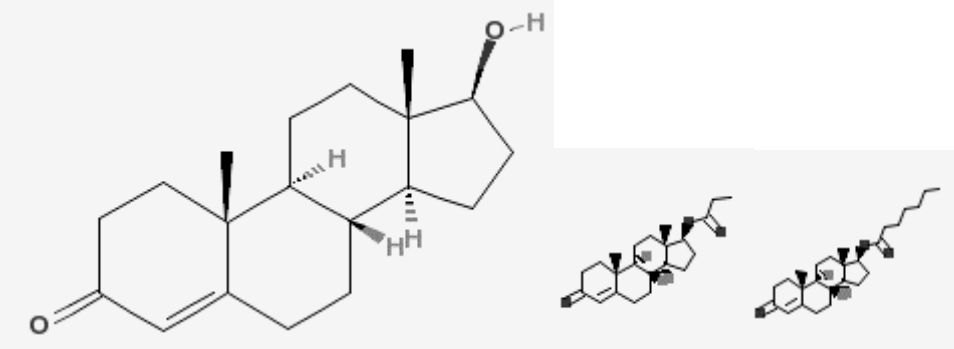
Testoviron



(Testosterone shown + Teststerone with Propionate and Enanthate ester)
(Testosterone Propionate + Testosterone Enanthate)
[17b-hydroxy-4-androsten-3-one]
Formula (base): C19 H28 O2
Formula(Enanthate ester):C7 H12 O
Molecular Weight: 412.6112
Molecular Weight (base): 288.429
Molecular Weight (Enanthate ester): 130.1864
Molecular Weight (Propionate ester): 74.0792
Formula (Propionate Ester): C3H6O2
Melting Point (base): 155
Manufacturer: Schering
Effective Dose (Men): 300-2000mg+ week
Effective Dose (Women): Not recommended
Active life: 8 days
Detection Time: 3 months
Anabolic/Androgenic ratio:100/100.

Testoviron is a blend of two different products, namely testosterone with the propionate (short) ester attached, and testosterone with the Enanthate (long) ester attached. Confusingly, Schering, who produces this product, also has a pure testosterone Enanthate product of the same name. Testosterone is usually attached to an ester (i.e. when you buy testosterone propionate, or Enanthate the components of this particular drug, you are buying testosterone with a propionate ester attached and testosterone with an Enanthate ester attached, both in the same milliliter of drug). These esters determines how long it takes your body to dispose of the testosterone, and propionate is the shortest ester commonly available with a testosterone base (of course, testosterone suspension has no ester), whereas Enanthate is the longest, generally available with a testosterone base. Within your body, there are enzymes called esterases, which have the function of removing the ester from steroids. This leaves you with just the steroid molecule with the ester cleaved off. The heaviness of the ester chain, determines how long it takes the esterase to remove it. With this product, you have testosterone with a heavy chain (which will take your esterases awhile to remove) as well as with a short chain (which your esterases will quickly remove).

What happens when those esters are removed?

Well, then the Testosterone you injected induces changes in shape as well as in the size of your muscle fibers. It can also change the appearance and the number of those (7). Testosterone is also noted for its ability to protect your hard earned muscle from catabolic (muscle wasting) glucocorticoid hormones (8), inhibiting their ability to send a message to muscle cells to release their stored protein. Concomittantly, Testosterone sends a message to muscle cells to store more contractile protein (called actin and myosin); glucocorticoid hormones send the opposite message. In addition, Testosterone has the ability to increase erythropoiesis (red blood cell production) in your kidneys (9), and as we all know, a higher Red Blood Cell (RBC) count would most likely improve endurance via bringing more highly oxygenated blood to your muscles. Having more RBCs can also improve recovery from strenuous physical activity. It should be noted that agression levels often rise dramatically with the use of exogenous testosterone (15).

All of these great benefits are to be had with the use of either testosterone Enanthate or propionate alone. Realistically, Testoviron will be part of a cycle containing one or more other drugs. People who are bulking will probably choose to use another drug like Deca or Eq (possibly with Dbol as well) and those who are cutting will probably steer towards Eq and perhaps Trenbolone. Very often users will shoot this drug three or four times a week, but blood levels of testosterone from the testosterone Enanthate component would still above baseline with this drug at around day eight (16), even though we know the other component would peak and fall much more rapidly.

The advantage to longer esters is they need to be injected less frequently (test prop needs to be injected every other day while you can shoot test cyp once a week). The disadvantage to long estered steroids is they contain less actual steroid. However, most people from Steroid.com and other discussion boards who have tried differing esters on their various cycles agree: Testosterone Propionate causes the least side effects and bloating, while Enanthate causes the most. Also, any injected testosterone will inhibit your natural test levels and HPTA (Hypothalamic Pituitary Testicular Axis). A hundred mgs of test/week takes about 5-6 weeks to shut the HPTA, and 250-500mgs shuts you down by week 2 (4).

What stacks well with Testoviron? Well, since it's a testosterone with both a short and long acting component, I suppose the answer is everything and nothing. Since it has a short ester in it, you would have to inject it every other day, so you may as well run another short acting drug with it (Trenbolone Acetate, or whatever). However, since its got a long acting component to it, you may consider using a longer acting drug with it (Deca or Eq, perhaps); the downfall here is that you don't get the full benefit of shooting test prop alone (less water retention, etc…). You still have to shoot as frequently as if you were only using prop. The testosterone Enanthate is long acting, but you're still going to be shooting this compound every other day to make use of the propionate component. The advantage of testosterone Enanthate (reduced shooting frequency) is negated. Many people's favorite's are Eq (boldenone undeclyenate) or Deca (nandrolone decanoate), but anything will stack well with testoviron. Tren (Trenbolone Acetate), Masteron, and/or Winstrol are also favorites for many on a cutting cycle. It's important to note that a product to fight water-retention and other estrogenic sides would be warranted if Testoviron were used for a cutting cycle.

Finally, it's worth noting that sometimes a strategy known as "frontloading" is employed with products like this one, since it contains both testosterone propionate,

and Enanthate. This is where double or triple the intended dose for the cycle is injected for the first two weeks, and the propionate ester gives a very quick rise in blood plasma levels of testosterone, and then the Enanthate ester is relied on for a more even blood level in the ensuing weeks. The reasoning behind this is presumably to get the blood levels of the drug up quickly in the hopes of seeing results more quickly, and then have the blood levels even out and stay constant.

Of all testosterones available on the market today, blended ester products like this one are the most unjustifiably expensive. This is both because they are in high demand, as well as more rare than single estered products. You can only find Testoviron in the Dominican Republic and Italy (135mg versions available in both countries). Expect to pay up to $5-7 for an amp of this stuff and if your source is asking for more, expect to walk away. When the price of testosterone is so low, I can't justify purchasing a blended product for any more than you would purchase a single estered test.

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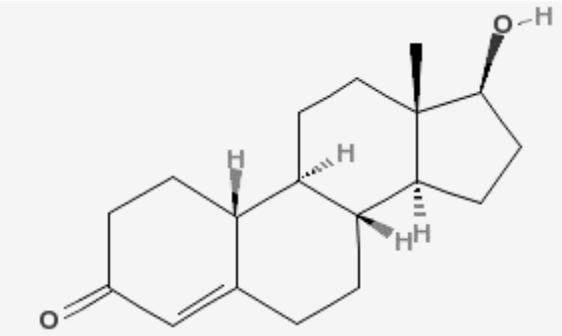
19-nortestosterone

Derived Steroids

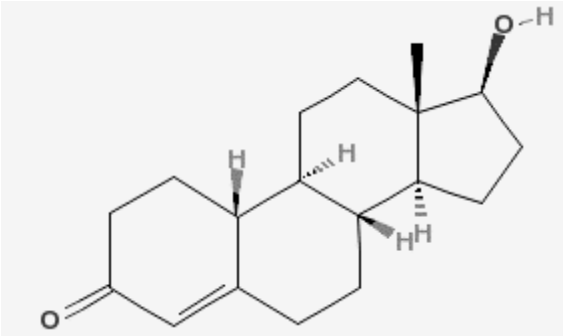
19-nortestosterone Derived Steroids



As you know, some steroids are derived directly from 19-nortestoserone this includes Nandrolone, Trenbolone,Nilevar, and many more. related compounds. Below is a partial list of some traits and effects that most, if not all, 19-nor-testosterone Derived Steroids have attributed to them

- Very favorable anabolic:androgenic ratio
- Minimal water retention
- High quality gains have been reported
- High strength gains reported
- Generally regarded as very safe
- Low side effects
- Excellent ability to retain gains post-cycle
- Low/No reduction to DHT
- (Nandrolones) Cause favorable actions to blood lipids
- (Nandrolones) Improve immune function
- (Nandrolones) Only convert to estrogen at 1/5th the rate of testosterone
- Increased Creatine Phosphate metabolism
- Increased insulin sensitivity
- Positive effects on joints and favorable on collagen/bone-mineral content
- Known to have progestenic activity
- Inhibition of HPTA at very low doses
- Difficult recovery of HPTA post-cycle

Anabolic DN



(Nandrolone shown without Cypionate ester)
(Nandrolone Base + Cypionate Ester)
[19-nor-androst-4-en-3-one-17beta-ol]
Formula (base): C18 H26 O2
Formula (ester): C8 H14 O2
Molecular Weight(base): 274.4022
Molecular Weight (ester): 132.1184
Melting Point (base): 122-124°C
Melting Point (ester): 98 - 104 C
Manufacturer: SYD Group
Effective Dose (Men): 200-600mgs/week (2mg/lb of Bodyweight)
Effective Dose (Women): 50-100mgs/week
Active life: 8 days
Detection Time: Up to 18 months
Anabolic/Androgenic ratio: 125:37

This is an underused product, for one reason or another. It's currently produced by SYD Group who had some very inconsistent lab reports posted on the 'net, with regards to their product line. It was also produced previously by Jurox, under the name Dynabol. It's also under used, I think, because it's an obscure buy for most people outside of Australia, where those aforementioned companies reside. Let's have a look at Nandrolone, then we'll discuss the addition of the Cypionate ester in opposition to the much more commonly used Decanoate ester (the ester used with Deca-Durabolin). First of all, Nandrolone doesn't produce many estrogenic or androgenic side effects. This is because it has a very low rate of aromitization (conversion to estrogen via the aromatase enzyme); roughly equal to 20% the rate of Testosterone. Nandrolone is a very nice anabolic, in my estimation (even though I don't use it anymore), and a 100mg/E2W (every 2 weeks) injection of it has been shown to provide a "significant increase in weight" (3). I'd never recommend that low a dose for an athlete, but it's evidence of Deca's strong anabolic properties. All of the Nandrolones are very nice anabolics, causing high-quality (albeit slow) gains in muscle. This could be due to its moderately strong binding to the Androgen Receptor (stronger than testosterone, actually), or possibly its many positive non-Androgen-Receptor mediated effects. One such non-receptor mediated effect is nitrogen retention, which is a major factor in muscle growth. Even with low-doses of Nandrolone (65 mg/week), Nandrolone produces significant nitrogen retention (5). Nandrolone is also well known to impove collagen synthesis (1), and increases bone mineral content (2). For these purposes, studies on Nandrolone use very low doses and were generally far too low to promote muscle growth.

In another study of HIV+ men (4) we can see that Nandrolone (200mgs on week 1, 400 on week 2 and 600mgs for weeks 3-12) actually caused NO negative side effects in total or LDL cholesterol, triglycerides, or insulin sensitivity. In addition, there was a reduction of HDL cholesterol (8-10 points) in both groups. Also, in these studies with HIV+ subjects, Nandrolone improved immune function (5).

Judging from Steroid.com members' feedback, as well as my own personal experience, long-estered Nandrolones are known for producing quality weight gains, but have to be used for 12 weeks at a minimum. This shouldn't cause any problems, since they are very mild drugs in terms of side-effects, and I don't think they would cause many adverse effects over this period of time. Nandrolone Cypionate has a very long active life, of roughly 8 days or so, slightly less than the far more common Nandrolone Decanoate (Deca). This would mean we want to shoot it 1-2xs a week, along with our other compounds because we'd probably be running Testosterone Cypionate with it.

Many members of Steroid.com also complain of water-retention with this the use of longer-estered Nandrolones, and again, I'm inclined to agree. Letrozole seems to be a preferred choice to combat this and it's been my favorite for this use, on cycles of 12-16 weeks. This water retention would seem to make something like Anabolic DN more suitable for bulking rather than cutting, although it can be succesfully used for either with a proper diet and use of ancillary compounds.

So where are we? How would I use this stuff personally? Well, I'd be comfortable recommending this compound for either a bulking or cutting cycle, and I think its real utility would be that you can use it along with Testosterone Cypionate and inject them on the same day because they'd have the same active life.

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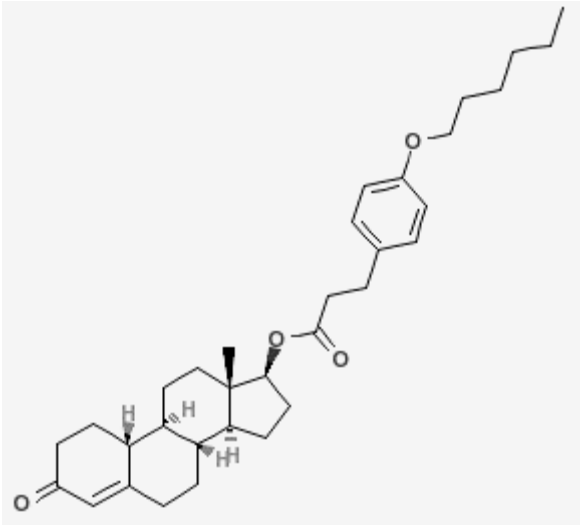
Anadur



(Nandrolone shown with *Hexyloxyphenylpropionate ester)*
Nandrolone base + Hexyloxyphenylpropionate ester
Formula (base): C18 H26 O2
Molecular Weight(base):274.4022
Melting Point (base): 122-124°C
Manufacturer: Various
Effective Dose (Men): 200-600mgs/week (2mg/lb of Bodyweight)
Effective Dose (Women): 50-100mgs/week
Active life: 15 days
Detection Time: Up to 18 months
Anabolic/Androgenic ratio: 125:37

Anadur is steroid that is very closely related to Deca Durabolin. The base compound in both drugs is 19-nor-testosterone, which is more commonly known as nandrolone. The base compound is similar to testosterone except the absence of a carbon-atom in the 19th position. The significance of a 19-nor-testosterone compound is that the conversion to estrogen is very low, and while the bond strength with the anabolic receptor (AR) is higher. The difference between this drug and that of Deca Durabolin is that Anadur contains the Hexyloxyphenylpropionate ester. This particular ester is very large, making this steroid very slow acting, and may be the slowest acting of all the nandrolone compounds. The downside to this large ester is that on a mass to mass basis, there is less nandrolone hormone than compared to Deca Durabolin.

Anadur is used in a very similar fashion to Deca Durabolin and is mostly for those looking for gradual gains with lower side effects. Anadur is not a commonly found steroid but still exists in some parts of the world, as listed later on. Nandrolone in general is more anabolic than testosterone and has a very low androgenic expression. It is reported to have an anabolic to androgenic ratio of 37:125. Typically, males would take a dosage range of 200-600mg/wk, with higher doses sometimes found in more advanced users. This compound normally would not be recommended for women due to the virilization effects this compound may cause such as increased body hair, deepened voice, acne, and clitoral hypertrophy. However, some female members at Anabolic Review have used it at ultra low doses of 25-50mg/wk with success.

This steroid can be affected by Anadur's chemical structure, the 5-alpha-reductace enzyme producing dihydronandrolone (DHN). DHN is a compound similar to that of DHT, however, unlike DHT, DHN is a much weaker drug and has a much lower affinity for binding to the AR. Furthermore, the rate at which nandrolone is converted to DHN will be much lower than testosterone. Because DHN is a weaker compound, those with concerns for the prostate and hair loss can still take Anadur with little side effects. Most members report no hair loss while using nandrolone products.

Also, again, based on structure, Anadur can be converted to estrogenic compounds via the aromatase enzyme. Although some estrogen is produced, both the amount and the rate of Anadur are much lower than testosterone, approximately less than 20% than that of testosterone. Although estrogen is low, the use of anti-estrogen compounds is highly recommended.

While the levels of estrogen and DHN production are low, there is a third mechanism that Anadur can convert. Nandrolone has been shown to have agonistic effects and a high affinity when binding with the progesterone receptor and acts as a progestin throughout the body. Ideally, one would want an anti-progesterone compound; however, there are no widely available products at this time.

Since Anadur has a high affinity toward the androgen receptorand has a lower androgenic expression, it is usually not recommended that it be taken without testosterone. Without a high androgenic expression and having a strong bond to the AR, side effects of low testosterone are possible such as the infamous "Deca-Dick" (impotence), lethargy, and low sex drive. Furthermore, because of the three conversion products listed above, this compound is generally very suppressive to the body and can make it difficult to restart natural testosterone production during post cycle therapy. Most Anabolic Review members report loss of libido and retention of gains after a nandrolone only cycle, and the addition of testosterone combats these problems. By adding testosterone, the balance of androgenic expression is raised in the body due to more competition and more binding with the AR. Remember, nandrolone binds very heavily to the AR and shows little androgenic expression. Hence, an androgenic compound is needed to counteract this.

Users of nandrolone report a soothing sensation in their joints. This is most likely attributed to the mild water retention caused by nandrolone. For this reason, Anadur would most likely not be found in high concentrations of a cycle for those looking to lose fat, and is more suitable for those looking to gain mass. Also, because of the different aromatizing products (estrogen, progesterone, and DHN), some Anabolic Review members report gains of fat when strict diets are not followed. Gains usually come steadily and are quality gains that are easy to hold with proper post cycle therapy.

Anadur is a good steroid to be stacked with a few other steroids, and as mentioned above, testosterone is highly recommended. Other compounds commonly stacked with Anadur or other nandrolone compounds are Equipoise, Dianabol, Winstrol, and Anavar.

When ending a cycle containing Anadur, most of the Anabolic Review members run testosterone for a couple weeks longer than the nandrolone. Since nandrolone is so suppressive, this gives the body time to clear the AR; binding with nandrolone so that it can prepare for testosterone. The Anabolic Review members report that this

helps recovery very much by doing so. For post cycle therapy, most follow the typical regimen of Clomid and/or Nolvadex. Others like to add HCG prior to ending the cycle.

Since Anadur is a nandrolone, it is to be expected that some of the metabolites produced will stay in the body for up to 18 months, making Anadur and all nandrolone compounds a very poor choice for athletes who are drug tested.

Given the large fatty ester on Anadur, the active life is reported to be around four weeks long. This also allows for very few injections as low as one injection per week for Anadur, although due to the relatively low concentrations either high volumes or more frequent injections are required. It is possible to only inject weekly, but the volume required would be 6-8ml which would not be advised with one injection.

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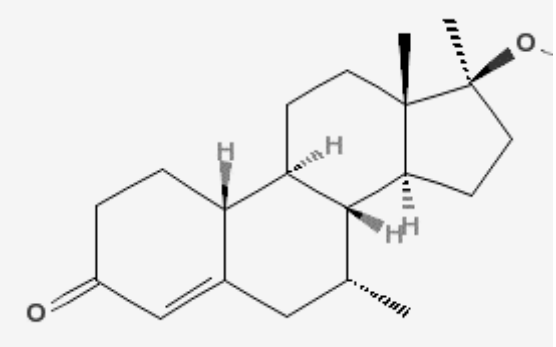
Cheque Drops



(Mibolerone)
[7-alpha, 17-alpha-dimethyl-19Nor-androst-4-en-3-one,17b-ol
17-hydroxy-7,17-dimethyl-estr-4-en-3-one
17beta-Hydroxy-7alpha,17-dimethylestr-4-en-3-one]
Molecular Formula: C20 H30 O2
Molecular Weight: 302.455
Melting Point: N/A
Manufacturer: Upjohn
Release Date: (Has been released and re-released numerous times)
Effective Dose: 200-400mcg
Active Life: 2-4hours
Detection Time: Immediate (only)
Anabolic/Androgenic Ratio:: 590:250

Mibolerone was initially used as a veterinary product used to keep female dogs under control while they were in heat. It did so by shutting down the cycling of their ovaries. With proper timing, breeders are able to regulate the heat cycles of their bitches. Eventually, athletes began to utilize the product in order to boost aggression before events. It was even rumored that Mike Tyson was on Cheque Drops during the infamous ear biting incident during his bout with Holyfield. However, the late great guru Dan Duchaine discovered the application of Cheque Drops in modern bodybuilding far before that. The drops went in and out of production several times, before making a recent insurgence due to the piqued interest in the product thanks to the growing popularity of ultimate fighting circles.

Cheque Drops are extremely potent, certainly one of the most potent androgens known to man. According to the manufacturer, "When compared to testosterone, it is 5.9 times more potent as an anabolic agent and 2.5 times more potent as an androgen." The most probable usage of Cheque Drops is for administration to athletes 30 to 40 minutes prior to an event that requires extreme aggression and adrenaline. To adapt the drug to bodybuilding purposes requires a much more complicated dosing regimen. Due to its toxicity, Cheque Drops should not be used longer than two weeks at a time, and at low dosages. However, for an anabolic effect, Cheque Drops should be used at 5mg (5,000mcg) a day or more. However, that would possibly lead to prompt physical illness. In order to find a medium that is possible for the modern bodybuilder, it is important to remember a few key aspects of the compound. Keep in mind that the dosages appropriate are only used to increase aggression, which can subsequently increase strength. The actual anabolic effect at these low doses is limited. Furthermore, long term use (beyond two weeks)

will lead to testosterone suppression and liver damage. Using the drops sparingly (1-2 drops at a concentration of 200-250mcg 30 minutes prior to a workout for no more than 2 weeks at a time) will provide a boost in training and aggression. Many users report breaking personal lift records when utilizing the compound. If the drops are used short term, testosterone levels should bounce back rather quickly. However, due to the risk of suppression, it is best to use the drops while on an anabolic stack in order to ensure elevated test levels. The drops are only used as a supplement to lifting, and they can be used when bulking or cutting. I would never recommend using this stuff without other compounds; however…the increased aggression without the increased performance provided by other compounds may be dangerous. They do not aromatize (convert to estrogen), so if used in the context above, Nolvadex, Armidex, or other such agents are not necessary, nor is the use of Clomid. It is highly progestenic, but in the doses we're talking about, that won't be a concern either. Unfortunately, this stuff blocks LH secretion, which will wreak havoc with your natural hormone production with prolonged use.

The half-life of the compound is very short (about 4 hours), so along with its immediate impact on the body, it leaves quickly as well. The drug has had enough of an impact, however, to be included in most all banned substance lists in most athletic organizations, so precaution should still be utilized. Several metabolites of this compound may still be detectable however (1), if you are tested immediately.

While it is sometimes touted as the most androgenic compound on the planet, it might subsequently be the most toxic as well. A 19 nor-androgen it can possibly cause progesterone related gynocomastia (you don't want that) if used out of the recommended dosage and time frame. A 17AA compound, it can also severely affect liver function. Precaution MUST be used when dealing with Mibolerone. Side effects include but are not limited to, increased aggression, hypertension, insomnia, and severe liver damage.

Female athletes should avoid this compound at all costs. Remember, it's used to regulate ovulation in bitches (ok, that was a gratuitous use of that word again). Side effects include, but are not limited to: severe acne, deepened voice, depression of menstruation and clitoral enlargement,and…err…vaginal secretion (if that's an issue). If taken by a pregnant female athlete, it would have possible effects on the fetus, as well as alter serum lipids. Remember, this stuff is used to control bitches in heat (and no, that wasn't slang; it's really used to control female dogs that are ovulating).

For those that are naturally aggressive, this compound will elevate aggression to dangerous levels. It may affect some users more severely than others, and should the athlete still be experiencing elevated aggression levels after the estimated time of physical exertion, they may displace aggression on others. Cheque Drops should not be stacked heavily with other 17AA compounds. Let's be honest, though, this stuff is powerful, but not deadly. The LD50 (the dose at which 50% of the Lab rats died) is 1,600,000mcg/kg! You'd need to take bottles and bottles of this stuff per day to replicate anything nearing that dose.

Cheque Drops are manufactured by Upjohn, and are available in a 100 mcg per cc, 55-cc bottles. There are 3 Chinese manufacturers of Mibolerone powder, which offer the crystalline form for anywhere between 200-350 dollars/gram. Several underground Labs have also began to produce Cheque Drops, such as Supra, with a

concentration of 200mcg/ml, but the prices remain high, and the availability low. Currently, Supra is the leader in Cheque drop production for athletes today.

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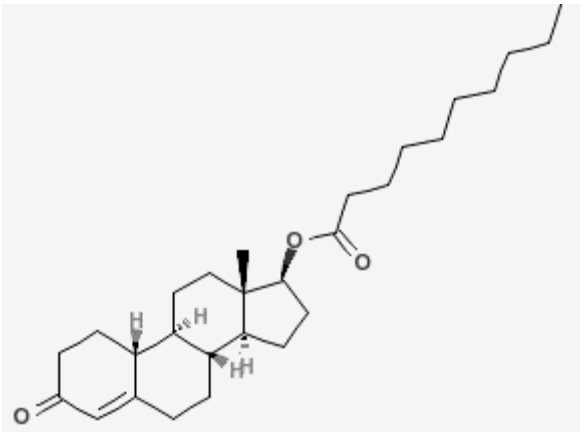
Deca-Durabolin



(Nandrolone shown with Decanoate ester)
(Nandrolone Base + Decanoate Ester)
[19-nor-androst-4-en-3-one-17beta-ol]
Formula (base): C18 H26 O2
Formula (ester):C10 H20 O2
Molecular Weight(base):274.4022
Molecular Weight (ester):172.2668
Melting Point (base): 122-124°C
Melting Point (ester):31 - 32 C
Manufacturer: Organon
Release Date (in USA): 1962
Effective Dose (Men): 200-600mgs/week (2mg/lb of Bodyweight)
Effective Dose (Women): 50-100mgs/week
Active life: 15 days
Detection Time: Up to 18 months
Anabolic/Androgenic ratio: 125:37

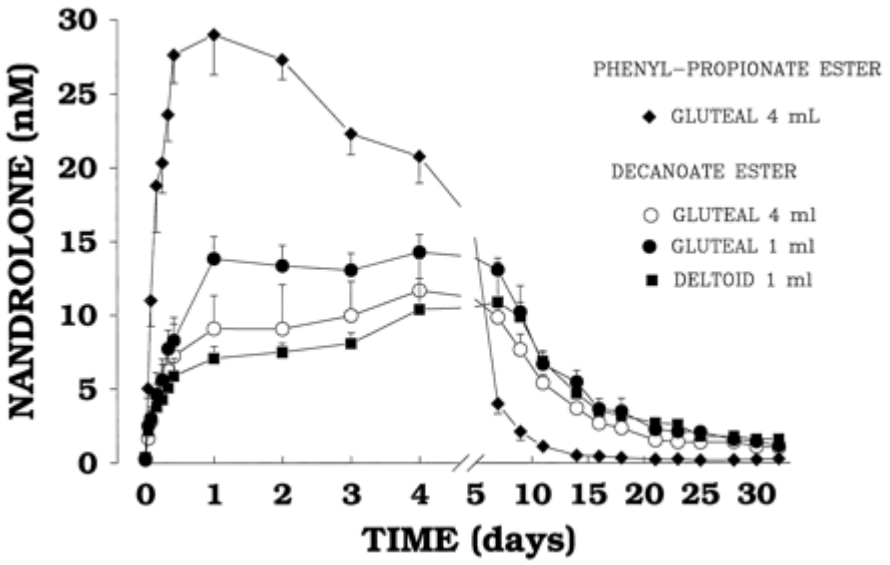
Deca-Durabolin ("Deca") is actually the brand name for Organon's version of the compound Nandrolone Decanoate. This is a 19-Nor compound (some would say that it is the 19-nor compound), and as such, it shares basically the same characteristics with all of them. One thing that is unique about Deca above nearly all steroids is the mystique it has had for the last quarter of a century. On a personal level, I've included Deca in cycles at doses ranging from 100mgs/week to 2,000mgs per week. Suffice to say, I have my fair share of experience with this compound. This drug was regarded very highly by Dan Duchaine in his Underground Steroid Handbooks, as well as many of his later writings. For many, this was, and is, the final word on Deca. Let's dive into some of the reasons that Deca's mystique may be well deserved.

First of all, Deca (and Nandrolone in general) doesn't produce many estrogenic or androgenic side effects. This is because Deca has a very low rate of aromitization (conversion to estrogen via the aromatase enzyme). Its rate is roughly equal to 20% the rate of Testosterone.

Also, I've read in many places that Deca stores water in connective tissue, thus alleviating joint pain. I have no idea what "storing water in the joints" means. I have no idea how to really quantify that statement, or where it started. However, in one

study of postmenapusal women, Deca impoved collagen synthesis (1), and in another study, it increased bone mineral content (2). Both of these studies used VERY low doses, which were far too low to promote muscle growth. In my estimation, based on these 2 studies, an athlete attempting to use Deca only for these two effects (increasing bone mineral content and collagen synthesis) should be using 100mgs every week. That's actually a higher dose than those two studies used successfully. Even at ½ of this dose, in HIV+ patients who have experienced significant wasting, a 100mg/E2W (every 2 weeks) injection of Deca resulted in a "significant increase in weight" (5). I'd never recommend that low of a dose for an athlete, but it's evidence of Deca's strong anabolic properties. Deca is a very nice anabolic, causing nice (albeit slow) gain in quality muscle. This could be due to its moderately strong binding to the Androgen Receptor, or its many positive non-Androgen-Receptor mediated effects. One such effect is nitrogen retention, which is a major factor in muscle growth and lean mass gains. In one study, with low-doses (65 mg/week) and high-doses of Deca (200 mg/week), both low-doses and high-doses resulted in significant nitrogen retention (33-52 g nitrogen/14 days, representing gains of 0.5 to 0.9 kg lean tissue/week), and body weight increased by 4.9 +/- 1.2 kg, including 3.1 +/- 0.5 kg lean body mass, and treadmill exercise performance (cardiovascular fitness) also improved (7). The higher doses in this study produced more gains. Steroid.com members who have posted their results with Deca confirm this in many posts and threads, with their average reccomendation being to take 400-600mgs/week for muscle gain.

Deca also has a very long active life. We can see from the chart below that a 100mg shot (represented by the circles) produced relatively active and stable plasma nandrolone levels almost until day 10, hence, once a week shots are all that's necessary for stable levels of nandrolond decanoate (as a side note, the nandrolone phenylpropionate used in this study was active, and only experienced a severe drop off around day 5—shooting NPP every 4th day is the way to go). You'll also note that higher blood plasma levels of Nandrolone are found with Gluteal injections as opposed to Deltoid injections (this is true for all oil-based steroids, I suspect).

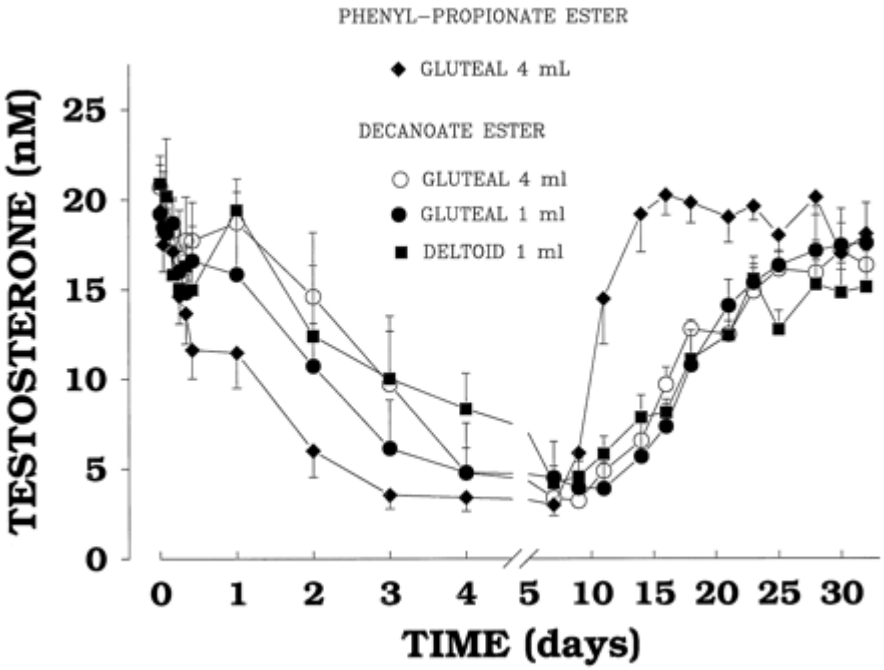


In another study of HIV+ men (6) we can see that Ddeca (200mgs on week 1, 400 on week 2 and 600mgs for weeks 3-12) caused no negative side effects in total or LDL cholesterol, triglycerides, or insulin sensitivity and there was a reduction of HDL

cholesterol(8-10 points) in both groups. Also, in most studies with HIV+ subjects, Deca also improved immune function.

So what do we know so far about this compound? So far, we know that Deca is a very safe drug for long term use, will help with joint problems, could improve immune function, and is highly (!) anabolic and not very androgenic. That's the good news (and there's a lot of it)…now for the bad news. Judging from Steroid.com members' feedback, as well as my own personal experience, Deca is known for producing quality weight gains, but it has to be used for 12 weeks at a minimum. This shouldn't cause any problems, since it is a very mild drug in terms of side-effects. Many members of Steroid.com also complain of water-retention with this drug, and I'm inclined to agree. Letrozole seems to be a preferred choice to combat this, and it's my favorite for this use. This water retention would seem to make Deca more suitable for bulking rather than cutting; although, it can be succesfully used for either.

Now for the worst news: unfortunately, Deca is a progestin (as are all nandrolones), and it happens to stimulate the progesterone receptor 20% as well as progesterone itself (3). This opens the door for many possible unwanted side effects (water retention, acne, etc…). It must be noted that most of those are rare, though. This also may be the major reason why Deca is such a suppressive drug when it comes to your natural testosterone levels. We can see from the chart below that a single measly 100mg injection of Deca caused a total (100%) reduction of natural testosterone levels, and it took roughly a month to return those testosterone levels to baseline! All from 100mgs of Deca!



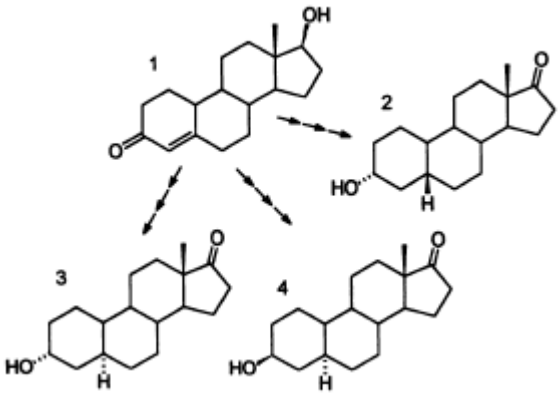
The moral of this story? Always use testosterone with your Deca! I suggest 200mgs minimum to avoid impotence and sexual dysfunction. For an anabolic effect from that of Testosterone, I recommend at least double that, with an equal amount of Deca (minimum). I'd also recommend taking an anti-progesteronic drug with deca

(or at least having it on hand): Cabergoline and Bromocriptine are both good choices.
So where are we? Well, I'd be comfortable recomending Deca for a bulking cycle with a dosage of up to 600mgs/week for an extended duration (12-16 weeks), or up to 400mgs/week in a cutting cycle (again, for 12-16 weeks), as long as something to combat water retention was present. Whatever purpose you decide to use Deca for, you still need to include Testosterone in your cycle and have some anti-progesteronic drugs on hand (see paragraph above), just in case.

Post Cycle Therapy (PCT), though beyond the scope of this profile, needs to be discussed. Due to the highly suppressive nature of Deca, I will speculate that testosterone in a deca-inclusive cycle must run for at least 2 additional weeks upon cessation of Deca. We remember from the chart above that baseline testosterone levels took roughly a month to return. Hence, a nice long estered testosterone should run for an additional 2 weeks. This is to prevent having a lag in time when the Deca is not producing an anabolic effect, yet is still suppressing your natural testosterone levels. I'd also suggest that a particularly agressive PCT be run after your cycle; nolvadex, HCG, and perhaps clomid should all be utilized in an effort to restore your natural hormone levels as quickly and efficiently as possible.

Buying this product as a human-grade pharmaceutical from a dealer who stocks the Organon brand will be an expensive proposition. You could end up paying well over $10usd per amp or 2ml vial, not to mention that this product is (in my estimation) probably the most faked steroid in the world. Buying veterinary grade will lower the cost, with an average price of $75 for a ten milliliter bottle. There are also many underground labs who produce this drug and usually 10-20mls of a 200mg/ml concentration will never run over $100.

Here's how Nandrolone is metabolized in your body:



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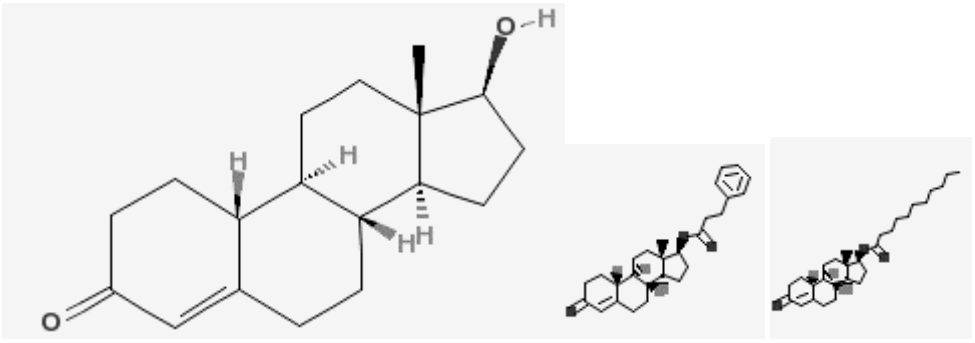
Diandrol



(Nandrolone shown + w/ Phenylpropionate ester and Decanoate ester)
(Nandrolone Base + 2 esters)
[19-nor-androst-4-en-3-one-17beta-ol]
Formula (base): C18 H26 O2
Formula (esters)
Phenylpropionate: C9 H10 O2
Decanoate:C10 H20 O2
Molecular Weight(base):274.4022
Molecular Weight (esters)
Phenylpropionate: 150.174
Decanoate:172.2668
Phenylpropionate: C9 H10 O2
Melting Point (base): 122-124°C
Manufacturer: Xelox
Effective Dose (Men): 200-600mgs/week (2mg/lb of Bodyweight)
Effective Dose (Women): 50-100mgs/week
Active life: 15 days
Detection Time: Up to 18 months
Anabolic/Androgenic ratio: 37:125

This is an interesting product, simply because it combines the two most popular Nandrolone preparations, namely, Nandrolone Decanoate (Deca) and Nandrolone Phenypropionate (Durabolin). I guess from a marketing point of view, it's a good idea, because a lot of people like both of those versions of Nandrolone. Let's take a look at what we're dealing with here, in terms of concentration:

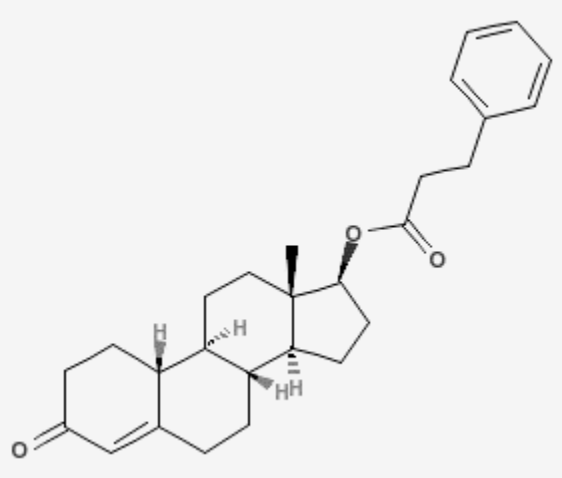
Nandrolone Phenylpropionate: 40mgs
Nandrolone Decanoate: 60mgs
(100mgs/ml, presented in a 2ml vial)

So basically, we have a nice little combination of slow and fast acting Nandrolone in a reasonable concentration. If you are inclined to use blends, and you can find this one cheaply; I'd say it's a decent buy. It's produced in the Phillippines and Labeled for export only, so the various economic factors involved tend to make this a cheap product, price-wise. If I were to speculate, I'd say that labeling it for "export only" was a way to export a loophole and get this stuff from the manufacturer onto the black market and into athlete's bodies with minimum interference from the local and federal authorities of that country.

Completely Cleanse Steroids From Your Body in Just 5 Days!

http://www.SteroidCleanse.com

Durabolin



(Nandrolone shown with Phenylpropionate ester)
(Nandrolone Base + Phenylpropionate Ester)
Formula (base): C18 H26 O2
Formula (ester): C9 H10 O2
Molecular Weight(base):274.4022
Molecular Weight (ester): 150.174
Melting Point (base): 122-124°C
Melting Point (ester): 20°C
Manufacturer: Organon
Effective Dose (Men): 200-600mgs/week (2mg/lb of Bodyweight)
Effective Dose (Women): 50-100mgs/week
Active life: 5 days
Detection Time: Up to 12 months
Anabolic: Androgenic ratio: 37:125
Effective Dose (Men): 300-600mgs/week
Effective Dose (Women): 50-100mgs/week

Nandrolone is a modification of testosterone (carbon atom removed from the 19th position). With an Anabolic/Androgenic ratio: 37:125 it is highly anabolic (muscle building) and moderately androgenic (male characteristics). Due to nandrolone's chemical structure, it only aromatizes (converts to estrogen) slightly, at about 20% the rate of testosterone when it interacts with the aromatase enzyme. Ergo, estrogenic effects are not a major concern with its use. Of note, however, is that nandrolone is a progestin with a binding affinity of 20% to the progesterone receptor (15) (PgR), so side effects are still possible, though rare. The development of breast tissue in males (gynecomastia) has been reported by some Steroid.com users. Besides being one of the most popular anabolic steroid used in bodybuilding cycles, nandrolone is also (medically) used to treat severe debility or disease states, and refractory anemias (1). It promotes tissue building processes, reverses catabolism (muscle destruction) and stimulates erythropoiesis (red blood cell production). This makes it a very useful drug to treat wasting disorders such as advanced H.I.V. (2) (16), and also, makes it highly sought after by bodybuilders and athletes.
Nandrolone is most commonly found with a cypionate, laurate, decanoate or plenylpropionate ester. Briefly explained, the ester determines how much of the given hormone is released over a period of time. Longer esters such as decanoate

peak slowly and can keep stable blood plasma levels up to ten days. Shorter esters, such as the phenylpropionate, peak more rapidly but the half-live is shorter. Shorter esters usually release much more active hormones per mg than longer esters, and of course, allow the drug's effects to leave your system more quickly. Surprisingly, NPP (Durabolin) and ND (Deca) release almost the same amount of active nandrolone per 100mgs: 69% and 65% respectively; this does not correlate exactly though because blood levels of nandrolone are much higher (about doubled) post NPP usage compared to the same 100mg dose of ND (see chart). NPP also has more distinct advantages over ND. One of the most common complaints about adding ND (Deca) to a cycle is the water retention that accompanies its use (3). Gains from NPP are reported to be "clean" with minimal water retention and fat gain. While ND is usually used in "bulking" cycles, NPP is used in "cutting" cycles, although either drug can be used in either regard. Being an oil based anabolic it is injected intramuscularly (into the muscle); many users inject it ED or EOD, however, NPP can be administered E4D without problems.

NPP and nandrolone in general have a number of benefits for athletes; they increase levels of serotonergic amines in the brain. These chemicals contribute to aggressive behavior. This could help athletes train harder and improve speed and power (4). Nandrolone also increases levels of IGF-1 in muscle tissues (5). This may be another reason why nandrolone is highly anabolic. NPP also benefits the athlete by increasing the number of androgen receptors (AR). One study showed that when nandrolone was given to rats at a dosage of 6mg/kg of bodyweight and was combined with muscle functional overload (muscle functional overload gives a similar effect to resistance training) it had a 1,300% (!) increase in AR protein concentrations (6). There is a direct link to muscle growth and AR levels. NPP also seems to be a promising fat loss agent. Men who were given the drug had reduced levels of subcutaneous (under skin), adipose (fat) tissue, and visceral (gut) however, fat loss was not as good (7). The fat loss effect seems though to be dose dependant. In one study, NPP at a daily dose of 1, 4, or 10mg per kg of bodyweight, the 10mg dose had the greatest effect on fatloss (8). NPP is used to treat anemia by stimulating red blood cell production (1). An increase in RBC count can improve endurance during exercise via better lactic acid clearing and oxygen delivery. The blood is also better enabled to carry nutrients to muscle tissue to aid in repair. Administration also increases the rate of muscle glycogen repletion after exercise, helping the athlete to dramatically recover after strenuous physical exercise (9). Athletes who require a high level of endurance in their chosen sport can benefit from the use of NPP (15). A favorite with bodybuilders who suffer with sore joints, NPP can also improve collagen synthesis (10), which may improve joint function and alleviate joint pains. Many members of Steroid.com swear by nandrolone's ability to allow them to train in comfort.

Many nandrolone lovers claim that it is one of the safest anabolic steroids, if not the safest. It does have side effects that can be bothersome to hypersensitive individuals such as acne, excitation, insomnia, nausea, diarrhea and bladder irritability (1). More serious (and common) side effects include testicular atrophy (shrunken balls), impotence (Deca dick) and gynecomastia (bitch tits) (1). Nandrolone use has been shown to be safe and easy on the lipid profile, often improving HDL Cholesterol (16) Impotence can be offset by stacking the nandrolone with a higher testosterone. Nandrolone also causes the "shut down" (total stoppage) of endogenous (natural) testosterone production. Thus an exogenous (outside) source must be provided. The increased prolactin levels from the use of a progestinic steroid contribute to HPTA shut down and testicular atrophy, which can be treated with a combination HCG (a

female hormone that acts like LH when introduced into the male body) and bromocriptine (a dopamine receptor agonist that, among other things, can lower prolactin levels) (1)(11).

NPP can be highly useful in either "bulking" or "cutting" cycles, and it would seem that diet and dosages are the determining factors of whether a cycle with this drug will be one or the other. Due to its highly anabolic nature, coupled with low androgenic properties, it can be incorporated into a mass cycle that is usually stacked with testosterone and a powerful oral like, possibly, oxymetholone (Anadrol) or methandrostenolone (Dianabol). NPP can thus be part of a classic bulking cycle. For a cutting cycle NPP is usually be combined with other short-estered injectable anabolic steroids (testosterone propionate and boldenone acetate come to mind as likely choices) and one of the DHT derived orals such as stanozolol (winstrol) or oxandrolone (Anavar). NPP is said to produce good mass and strength gains in both cutting and bulking cycle phases (3). When one is planning a cutting cycle one must take caution if combining the 19-nor-testosterone derivative trenbolone with nandrolone. Trenbolone Acetate, although a powerful drug for lean muscle gains, strength, and fat loss, is also a strong progestin with a binding affinity to the PgR of 60% (3x that of nandrolone). The elevated prolactin can worsen HPTA insult, often causing the user to spend more money on preventative measures. The combo may also result in a difficult PCT protocol to regain natural testosterone production. So far, few Steroid.com members have had any first- hand experience with NPP because it is limited to the few who know which UGLabs sells this particular form of nandrolone. This increases the popularity of "home brewing" since the powder comes out of China at very affordable prices. It is only a matter of time before NPP (or Durabolin) takes a special place in the arsenal of Steroid.com members in their quest for more muscle.

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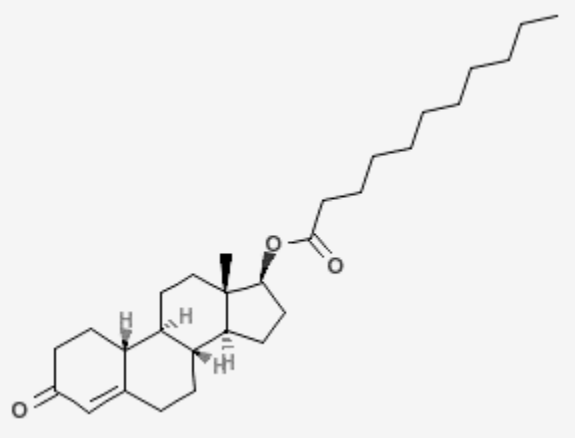
Dynabolan



(Nandrolone shown with Undecanoate ester)
(Nandrolone + Undecanoate ester)
[Nandrolone: 19-Nor-4-androstene-3-one, 17b-ol]
Formula (of base): C18H26O2
Formula (of ester): C11 H22 O2
Molecular Weight (Nandrolone w/o ester): 274.4022
Melting Point (of base): 122-124°C
Manufacturer: Farmasister (Italy), Theramex (France-Discontinued)
Release Date: 1992
Effective Dose: 200-600mgs/wk (men); 40-80mgs/wk (women)
Active life: 8-10 days
Detection Time: Up to 18 months
Anabolic/Androgenic Ratio: 125:37

For readers who are getting used to my (lack of?) style with regards to writing anabolic profiles, it will come as no surprise that the first thing we'll need to do in examining Dynabolan (Nandrolone Undecanoate) is have a quick look at its structure. First, we can see that this is a 19-nor steroid. In fact, this is just another type of Nandrolone, which means that it will share many, if not all, of its traits with "Deca" (Nandrolone Decanoate, trade name: Deca-Durabolin). As we know, Nandrolone is similar to testosterone, with the exception of the alteration of the 19th carbon atom. And the "Undecanoate" part of this drug's name (that's the ester, or the thing that slows its release into your bloodstream) provides a slightly longer release time than Deca has. If I were to suggest that everyone take one thing away from this profile, it's that this drug is more or less a slightly longer acting version of Deca, which means you need to employ it for a extended length of time to see results (12 week cycles are recommended when using this compound). Also, this long release time and the ubiquitous nature of Nandrolone's metabolites make it unsuitable for drug-tested athletes.

Before we go into all of the wonderful characteristics of this drug, let's discuss some of its less-than-wonderful aspects. Most side effects common with most AASs are also common with this drug: possible virilization (development of male sexual characteristics in women), gynocomastia, water retention, acne, hairloss, and possibly even sexual dysfunction. Being a nandrolone, Dynabolan is also going to have the ability to stimulate the progesterone receptor 20%, as well as progesterone

does (1)(2). This stimulation of the progesterone receptor is primarily responsible for the suppressive effects that this drug will have on the body's natural endocrine system. Progesterone (and synthetic progestins, like nandrolone) can reduce luteinizing hormone production. This hormone is secreted from the pituitary and stimulates testicular testosterone production. Anabolic/androgenic steroids (AAS) can also suppress this hormone's pituitary borne production by interfering with the Gonadatropin Releasing Hormone signal sent from the hypothalamus to the pituitary; this, in turn, also stimulates lutenizing hormone secretion. So, it should be clear that this compound, through various mechanisms, will act to halt the production of testosterone, as well as other important hormones, in your body. The now infamous "Minto" studies on nandrolone have shown us that even a single 100mg injection of Nandrolone (although Undecanoate was not used, both a short as well as long ester Nandrolone product were used) will shut down endogenous (natural) testosterone production for a week and will not return to baseline values until roughly 3 weeks later (3). Dynabolan will also aromatize (convert to estrogen) at a reasonably low rate, much lower than that of testosterone. Given the estrogenic/progesteronic side effects that this drug will cause, use of an anti-progesteronic drug (such as Bromocriptine at 2.5mgs/day) as well as perhaps some Letrozole (1mg/day) should be warranted. Regarding Nandrolone, most veterans of Steroid.com recommended the concurrent use of exogenous (injectable) testosterone to avoid the possible sexual dysfunction associated with Nandrolone. In general though, it's difficult to imagine someone getting any side effects if dosages are kept at 400mgs/week or less (women would do well to keep dosages at or under 1/4 of that).

Now, if all of that didn't scare you off or put you to sleep, we can get into the good parts of this drug. It binds well to the Androgen Receptor (AR), which has been positively correlated with enhanced fat-burning (4). This property makes it a great addition to a cutting cycle; although, it can also be used with great success in a bulking cycle as well. And, since this is a Nandrolone (albeit not with the ester we are used to seeing it with), we can probably expect to reap all of the benefits that nandrolones have been shown to have on bone mineral content and collagen (5). When using nandrolone, little nagging injuries seem to go away for many athletes, and Steroid.com members consistently report that their joints feel better when using it. Dynabolan is also, being a nandrolone, very easy on the liver, although if someone has a pre-existing liver condition, it should be avoided. Also, lipid profiles (your HDL/LDL cholesterol) won't suffer, and could possibly improve a bit with use of this drug.

Weight and strength gain with this drug is moderate and users report more of a "kick" than they usually get with regular Deca. Besides, binding well to the AR, this drug also operates via several non-androgens receptor mediated mechanisms, such as increasing protein synthesis and increasing creatine phosphate synthesis. This is also one of the few drugs that won't negatively impact your lipid profile (cholesterol). Most users report that weight gains are of a high quality with this drug and represent a favorable change in body composition. This would be especially true if it were stacked with testosterone and proper ancillaries.

Hypothetically, if I were to use this compound to bulk up, I'd use 400mgs/week with 500mgs of a long-estered testosterone (Cypionate or Enanthenate), and the ancillaries I've previously mentioned. If I were to use it in a cutting cycle, I'd use a short estered testosterone (most likely Propionate) at that same dose (500mgs/week), as well as Oxandrolone at 50mgs/day, and I wouldn't forget the ancillaries. I'd also consider this drug to be appropriate for use in a 12-16 weeklong

cycle. Due to the highly suppressive nature of this drug, a very aggressive post cycle therapy would be necessary, and I'd recommend taking Clomid at 100mgs/day as well as Nolvadex at 30mgs/day for a month and HCG at 500iu/day for 3 weeks. I'd also caution anyone who is going to use this drug to avoid stacking it with a trenbolone product. Combining 2 steroids, which stimulate the progesterone receptor, isn't a great idea.

And that leaves us with the final question: Is this stuff actually available? The answer is yes and no. Actual Dynabolan is very hard to obtain although it is still in production, and fakes would be an issue, as would cost. On the other hand, nandrolone undecanoate (not the brand-name product "Dynabolan") is made by several underground labs (Dpharm, for example, produces it), and is relatively cheap. Expect to pay slightly more than you would for nandrolone with the decanoate ester; anything under $50 for a 10ml bottle of 100mg/ml strength is a fair black market price.

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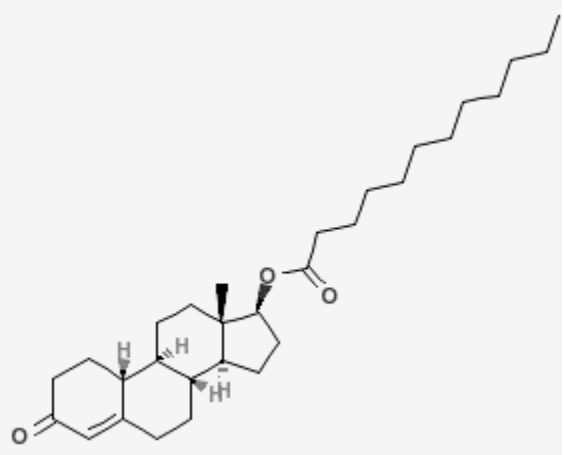
Laurabolin



(Nandrolone shown with Laurate ester)
(Nandrolone + Laurate ester)
[17beta-Hydroxyestra-4-en-3-one]
Formula (base): C18 H26 O2
Formula (ester): C12 H24 O2
Molecular Weight (base): 274.4022
Melting Point: 44-46C
Manufacturer: Various
Effective Dose: (men) 200-400mg/week (women) 50-100mgs/week
Active life: 10 days
Anabolic/Androgenic Ratio: 125:37

Laurabolin is an oil based injectable steroid, which was allegedly intended for veterinary use in animals such as cats, dogs, pigs, lambs and horses. I found very little information while searching in various medical journals for the use of Laurabolin in any of those animals. This, plus the fact that this steroid is primarily available in Mexico, leads me to believe that it is basically made for humans making the trip into Mexico from the US. I mean, I can't imagine a doctor prescribing steroids for someone's cat. Unfortunately, as with many useful steroids, Laurabolin was never approved or even marketed toward humans in the USA.

Let's take a look at Laurabolin and see what we're dealing with: this compound is a 19-nor-testosterone based steroid, specifically a nandrolone, which means that nearly anything that is true of Deca-Durabolin (or any other nandrolone) will be true of Laurabolin. Of course, here we're talking about all of the things you're probably familiar with regarding Deca: the positive effects on joints, collagen, and bone-mineral content (1)(2), and the unfortunate progestinic effects that nandrolones have (remember, nandrolone is a progestin). Progestins have the ability to wreak havoc with your natural hormone levels, as well as amplifying many of estrogen's effects (5). Fortunately, nandrolone is not subject to much aromatization so it will be amplifying the estrogen (most likely) engendered by other steroids in your system. Don't forget to have on hand an anti-progestenic ancillary drug. Personally, if I were going to run any form of nandrolone, I'd be using Letrozole at .25mg/day. While it's true that Letrozole can cause some problems with blood lipids, I think that when you consider the positive effects that nandrolone has on them (6), you'll find

that they can both run together safely and actually provide many complimentary actions. Letrozole will also help you with any possible estrogenic and progesteronic effects from Laurabolin (more on this later). Also, in a cycle containing Laurabolin, adding in some form of injectable testosterone is going to probably be necessary for most people. This is to replace the endogenous testosterone levels that Laurabolin's progestenic properties will have depleted. A good rule is to use roughly equal amounts of both compounds.

Laurabolin will help you recover more quickly from exercise (3) via replenishing muscle glycogen, increasing protein synthesis, etc. The only true difference is the duration of its effectiveness. Laurabolin can remain effective many days after the injection, but realistically, only slightly more than Deca. Nandrolone's structure is very similar to that of testosterone. The only difference is it lacks a carbon atom at the 19th position. This causes it to have much lower androgenic properties than testosterone. The primary reason for low androgenic side effects associated with nandrolone is that although it is altered by 5a-reductase enzyme just like testosterone, the altered product is dihydronandrolone, which is much weaker in action then dihydrotestosterone. What do all of these big words mean to you? Well, none of them are particularly important. They're just geek-speak for stating that nandrolone generally produces less side effects than testosterone. Unfortunately, the main place where nandrolone causes more side effects than testosterone is in its ability to shut down and inhibit your HPTA. This is despite much lower tendency for estrogen conversion, since the rate at which the nandrolone converts to estrogen is estimated at a mere 20% of testosterone's conversion. The primary disadvantage of Laurabolin over Deca-Durabolin is it's generally found in a very low concentration level of 25-50mg per cc/ml. This in turn forces the athlete to take multiple and voluminous injections, making it quite a bit less desirable than Deca. However the price of Laurabolin is generally much lower than that of Deca-Durabolin, somewhat making up for the voluminous and frequent injections. Unfortunately, while the price of is lower than that of Deca, the water retention experienced is the same, if not more. This is possibly due to the longer ester. Using Letrozole (which I recommended previously to help with progestenic/estrogenic side effects) will combat this, but I still think that Laurabolin must be relegated to use in bulking cycles.

Laurabolin has a strong anabolic action (rated more highly than testosterone, for anabolic properties) and this is coupled with minimal androgenic properties. Remember, nandrolone was synthesized to provide fewer side effects than testosterone and more anabolic effects by allowing enhanced cellular protein synthesis, thus allowing the prevention of protein loss through the urea and promoting lean tissue build up. In animals, this compound has also been used to correct metabolic deficiencies, malnutrition, anemia, and slow maturation (8). It will, again, like all nandrolones, increase your bodymass, FFM, and strength (7). A few other important characteristics of Laurabolin include maintenance of proper levels of calcium & phosphorous and the production of red blood cells (8). This compound is unlikely to be counterfeited, due to its low demand in the nandrolone market place, where Deca and NPP are the reigning champs. Also, Laurabolin is mostly available in Mexico where it is sold in very low concentrations, whereas Deca and NPP are available from several udergrounds labs, as well as major pharmaceutical houses.

The gains with this compound are much slower than with testosterone; however, they are of higher quality and are easier to maintain once the use of Laurabolin has

been discontinued. And of course, as with any nandrolone, proper post cycle therapy regimen should be incorporated at the end of cycles consisting of Laurabolin.

The average doses for male athletes are in the range of 200-400mg per week (which would entail putting more oil in your body than there is in your average Indy 500 car). Female athletes can also find this item useful as it has low androgenic properties and high anabolic properties, that will limit virilizing effects (effects which make a woman take on male characteristics). The average dose for a female athlete would be in the range of 50-100mg per week. Laurabolin is a good choice for female athletes, as it is usually sold in a very low concentration (Mg/Ml), is rarely counterfeited, and is not in high demand, thus, making it cheap (you should never pay more than $2-4 per ml). Sadly, this drug will never really be very useful for men, except perhaps for its effects on bone mineral content and collagen, which can be taken at 50mgs/week. This is because it is only available in low dosed concentrations.

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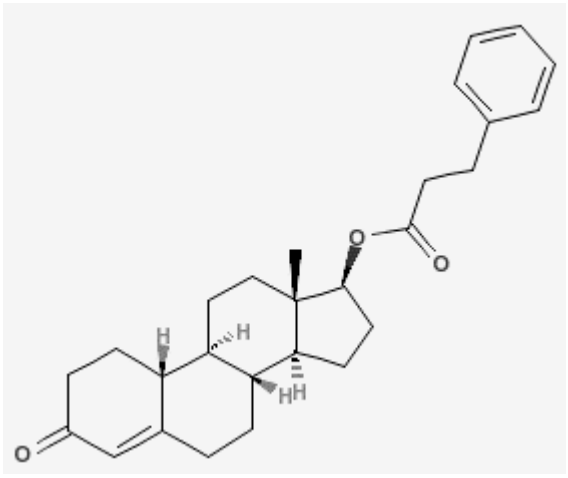
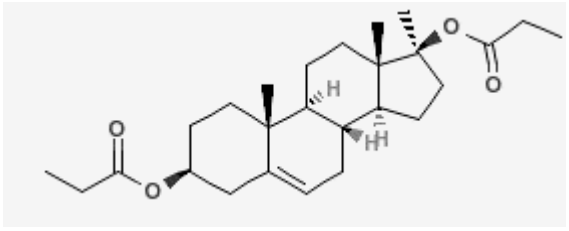
Nandrolone + Methandriol Blends





(Nandrolone Phenylpropionate) *(Methandriol Dipropionate)*
Nandrolone phenylpropionate + Methylandrostenediol Dipropionate (methandriol) blend
(Trade name: Libriol, Tribolin, and Anabolic NA)
Nandrolone base + phenylpropionate ester (or Decanoate or Cypionate ester, respectively)
Formula (base): C18 H26 O2
Formula (ester): C9 H10 O2
Molecular Weight(base):274.4022
Melting Point (base): 122-124°C
Manufacturer: RWR
Effective Dose (Men): 200-600mgs/week (2mg/lb of Bodyweight)
Effective Dose (Women): 50-100mgs/week
Active life: 15 days
Detection Time: Up to 18 months
Anabolic/Androgenic ratio: 125:37

Methylandrostenediol dipropionate
Formula: C20 H32 O2
Molecular Weight: 304.4716
Molecular Weight (base): 304.4716
Molecular Weight (ester): 74.0792
Formula (base): C20 H32 O2
Formula (ester): C3 H6 O2
Melting Point (ester):21.5C
Manufacturer: RWR
Effective Dose (Men):350mg week.
Effective Dose (Women): 25mg per day.
Active life: 3 days
Detection Time: 2 weeks
Anabolic/Androgenic ratio: 30-60/20-60

Libriol and Tribolan are trade names for another exotic anabolic preparation coming out of an Australian company, RWR, which is shrouded in mystery. Anabolic NA is Syd Group's entry into this bizarre combination of steroids. They all seem to be of popular demand in bodybuilding circles primarily because of this mystique. I will look at the pros and cons of this obscure drug and if it qualifies to be in the muscle building, fat-melting cycles of our future.

Libriol is an injectable veterinary product containing short esters of the drugs nandrolone and methandriol. Anabolic NA has the rare Nandrolone Cypionate, and Tribolan contains the very long estered Nandrolone Decanoate. Steroid.com members should immediately recognize the first drug, nandrolone. A steroid derived from modifying the testosterone molecule, Nandrolone is one of the most popular drugs in the world and with good reason; it is a versatile steroid that can be used in "bulking" or "cutting" cycles. Nandrolone has many benefits for athletes coupled with an unbeaten safety record. It has an anabolic (muscle building) rating of 125, making it an excellent drug for adding lean muscle. Neither is it very androgenic (leading to the development of male characteristics), with an androgenic ratio of only 37. Nandrolone aids the hardcore athlete in various ways: it promotes nitrogen retention in the muscle cell (1), which in turn promotes the muscle cell to synthesize and store more protein; it increases levels of the highly anabolic hormone IGF-1 in muscle tissue (2); and it leads to a significant increase in the amount of androgen receptors in muscle (3). Nandrolone has been proven to improve endurance (4), increase the number of red blood cells (5) and speed the rate of glycogen replenishment after strenuous physical activity (6). One trait Steriod.com members love about nandrolone is its ability to reduce joint pain and soreness (7)—this is because the drug increases the rate of collagen synthesis and increase bone mineral content (8)(9). Shown to be a good drug for fat loss (10), nandrolone can reduce the amount of fat under the skin and around the abdominal area (10). The amount lost, however, is dependant on dose, with higher dosages having the greatest overall effect (11). Nandrolone also has positive effects on the brain. It increases chemicals in the brain that promote aggressive behavior, which can improve both speed and power (12). Nandrolone aromatizes (convents to estrogen) slightly, but only at about 20% the rate of testosterone, so estrogenic side effects such as breast tissue growth in men (gynecomastia), fat gain and water retention are not major issues. Steriod.com members who use nandrolone seldom complain of androgenic side effects such as prostate enlargement, loss of hair and acne. Those who are worried about their cardio vascular health can use nandrolone without fear; studies have shown that it does not negatively affect cholesterol (13). The ester of nandrolone contained in Libriol is the phenylpropionate ester, which provides a rapid, high concentration of hormone in the blood steadily for up to four days.

Nandrolone is a good drug, but it is not perfect. With its chemical structure it acts directly on the receptor of the female sex hormone—progesterone—with a binding rate of 20% of the actual hormone (14). Despite its low aromatizing rate, this can lead to breast growth in gyno-prone individuals. There is no need for panic though, because the drugs letrozole (femera) or fulvestrant can easily combat this (15) reaction. Elevated prolactin levels are also a side effect of nandrolone usage, but there are readily available drugs like bromocriptine and cabergoline that activate the dopamine receptor to lower prolactin levels (5). Shrunken balls (testicular atrophy) may be a problem from elevated prolactin as well; HCG (female hormone that acts like LH when introduced into the male body) used during the cycle can possibly remedy or prevent the condition (16). Probably the worst effect nandrolone has is on natural testosterone production: a single 100mg dose of nandrolone causes

complete nullificaton of testosterone levels, which remained suppressed for a month before returning to normal (see chart). This can cause impotence and loss of sex drive, better known as the dreaded "Deca dick." The best solution to this problem is to always use testosterone with nandrolone.

The second drug in these combination steroids is methylandrostenediol dipropionate. It is a very weak steroid with an anabolic/androgenic ratio of 30-60/20-60. No large amount of strength or muscle gain should be credited to methandriol, but it does have a few benefits that are worth mentioning. Studies show the parent hormone 5AD to promote a favorable immune system (17). This would probably prevent those who are over-trained from getting sick. Methandriol also has a binding affinity to the sites of the muscle destroying (catabolic) glucocorticoid hormones (18)—blocking them from doing harm, which makes methandriol anti-catabolic. Most other profiles would tell you that methandriol somehow amplifies the muscle building potential of other steroids by "unblocking" the androgen receptor and for this reason it should be stacked with other anabolics. This statement is total garbage and should be disregarded by all Steroid.com members. Androgen receptors do not become "blocked" or "clogged up"; secondly, androgens themselves increase the numbers of androgen receptors (3), so methandriol would not be needed to do this.

So far the news on methandriol does not look good but wait, it gets worse.
Methandriol's parent hormone 5AD has been shown to be a steroid with "potent estrogenic properties" (19). Since methandriol is more potent than 5AD, its estrogenic effects should cause any Steroid.com member using it grave concern. Excessive estrogenic activity can lead to gynecomastia, fat gain, water retention, loss of sex drive, and sluggish natural testosterone production. The bad news does not end there; methandriol itself binds to the estrogen receptor, needing no chemical change to exert its nasty side effects. Estrogen combined with an androgen promotes weight gain in animals better than either alone (20) however, and this is the real reason the highly estrogenic methandriol is added to other steroids, not because it "unblocks" the A.R. The "massive strength gains" allegedly from methandriol use would most likely result from the great deal of water retention inside the muscles, which would rebound when compressed during the lowering of a weight, similar to the action of a benching shirt. In addition, methandriol has also been shown to increase blood pressure (21). In fact, the only good thing about methandriol would be that it has not been shown to affect lipids, so clogged up blood vessels would be one of many sides you would not have to worry about on it. Methandriol carries di-propionate esters which are actually two propionate esters attached to the hormone.

So how could you use them in a cycle? Let's take Libriol as an example; your first problem would be the weak concentrations of hormone per ml, with 30 mg of nandrolone phenylpropionate and 40 mg of methandriol dipropionate per ml to get the recommended 400-600mg of nandrolone per week. This would mean injecting 14-20 cc per week. Adding the other injectables recommended will amount in a good deal of injection volume. This would also give you a whopping 560-800mg of the highly estrogenic methandriol. You face the same problem with Tribolan, since it contains 40mgs of MAD and 35 of nandrolone decanoate. Anabolic NA is not much better, having only 45mgs of MAD and 30mgs of Nandrolone Cypionate Per ml. If you are determined (or stupid) enough to use Libriol (or any of these combination compounds), stacking it with testosterone propionate and the anti-estrogen letrozole would be the best course of action to control the massive amount of bloat to follow. I think you'll be using about a bottle (10mls) every week if you want a real anabolic effect from Nandrolone/Methandriol. I strongly advise against using them with

highly aromatizing drugs like dianabol and anadrol, and with longer acting testosterone like enanthate or cypionate. I fear the sides would be too much for the average athlete. To be honest, I would not touch Libriol with a ten-foot pole.

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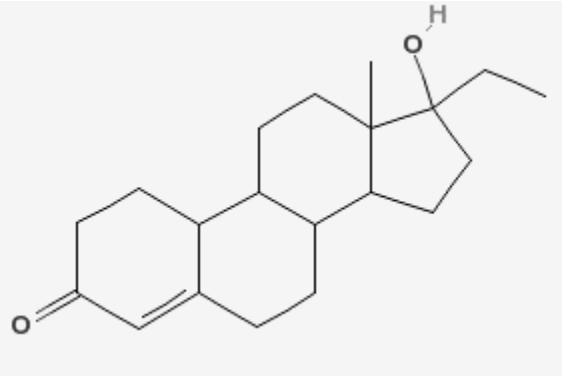
Nilevar



(Norethandrolone)
[17-alpha-ethyl-19-nor-4-androstene-3-one, 17b-ol]
Formula: C20 H30 O2
Molecular Weight: 302.4558
Melting Point: 130-136
Manufacturer: Searle
Release Date (in USA): 1956
Effective Dose: 20-40mgs/day
Active life: 12-16 hours
Detection Time: 5 weeks
Anabolic/Androgenic ratio (range): 100-200/22-55

Nilevar was one of the first oral steroids available in the United States. It was essentially Searle's answer to Ciba's Dianabol (methandrostenolone), which was released that same year. In fact, with respect to Nilevar's effects on weight gain, anabolism, and water-retention, it is frequently compared to Dianabol. Seven years prior to the release of Nilevar, the Mayo Clinic heralded the dramatic effectiveness of cortisone in the treatment of rheumatoid arthritis. This in turn stimulated tremendous interest in all facets of steroid chemistry, endocrinology, and related fields. G.D. Searle & Co. promptly initiated a major effort in steroid research, with the objective of discovering better steroidal compounds than were previously available, and new steroids that could be used for conditions for which no other compounds were available. This effort resulted in the introduction of norethandrolone, marketed in 1956 as Nilevar, the first anabolic agent with a favorable separation between protein building and virilization (which is the development of androgynous characteristics) (1). Paradoxically, in men, only weak androgenic effects are found (possibly because it is deactivated by 5-alpha-reductase, which we don't need to delve into—just remember that in men, only mild androgenic effects are generally seen), though in women virilization is very common (for women this would mean developing male physiological characteristics: a deepening of the voice, the growth of extra body hair, and a tendency to leave the toilet seat up). I wouldn't recommend this drug for use by female athletes, not only due to these side-effects but also due to some issues with infertility, which are also possible in females, though probably not with males (5)(6). The anabolic effect of this drug is moderate, and this is probably due to its moderately strong binding to the androgen receptor (this makes it quite different from Dianabol, which has a poor binding to the androgen receptor) as well as it's ability to stimulate protein synthesis (which it has in common with Dianabol) and stop protein catabolism (7). Nilevar was

Searle's first unique entry into the world of AAS, and it was this drug that eventually led to the research and develpoment of the much less androgenic and estrogenic/ progesteronic oxandrolone (Anavar) a decade later, and the resulting decline in popularity and use of Nilevar.

As you will see, though, Nilevar still has it's own niche and purpose in athletics and bodybuilding, and can be an important part of either a cutting or bulking stack, but I'm getting ahead of myself, and we need to understand a few basics about Nilevar first.

A quick look at the molecular structure of this drug tells us that it is a 19-nor steroid, which means that it could/should possess some of the same characteristics as nandrolone, which is why it is often referred to as "Oral Deca". Although this is a gross oversimplification of this drug, it's the easiest place to start when describing this compound. Norethandrolone, shares many characteristics with the injectable nandrolones; it aromatizes and it is also a progestin. This means that it can convert to estrogen (since it aromatizes) and also fits into and stimulates the progesterone receptor (being a progestin). Unfortunately, progestins fall into the category of being severely gonadotrophin suppressive compounds (3), and it also means that most ancillaries aren't going to have 100% of their desired effect. Nolvadex, especially, won't help and could actually hurt you by increasing progesterone receptors (4). The 19-nor structure of this compound, very much like injectable nandrolone, indicates that this drug can shut down your natural testosterone production and HPTA (which is the term used to describe a whole host of interdependent hormones and processes within your endocrine system). It does all of this while also causing side effects such as gyno, acne, and water retention (the dreaded "smooth look"). If I were going to use Nilevar, I'd strongly consider having anti-progesteronic compounds on hand (preferably Bromocriptine which I'd take at a dose of 2.5mgs/day, and perhaps some Letrozole, which I'd use at .5mg/day to fight water retention and estrogen) as well as the typical ancillaries used with other AAS, as those generally only fight/eliminate the process that causes AAS to convert to estrogen or fight/eliminate the estrogen itself.

Sadly, we're fighting side effects from both estrogen and progesterone when we use Nilevar. On the positive side of being a 19-nor compound, it must be noted that you also can reap many of the positive effects of other such compounds including a relatively strong bind to the androgen receptor, which is positively correlated with lypolysis (fat-burning). (2). Although at first glance, I'd say that you should consider Nilevar as a "bulking" type of drug, I'm speculating that if you use something to keep the water-retention to a minimum while using this compound (for this purpose, I've already reccomended Femera), it can successfully be used in a cutting cycle. Users who experience joint pains may find similar relief with Nilevar as they would with Deca. Sadly, though, as Nilevar is an oral steroid, it can't be used for the same length of time as Deca, so it's use for joint relief is probably contraindicated by possible issues with hepatoxicity (Liver Toxicity) stemming from its being 17 alpha-alkylated. On the bright side, since it is orally active and not estrified like the injectable 19-nor drugs (like Deca), its metabolites will most likely clear your body in much less time than with the injectables, the most common estimate being roughly 5 weeks. I'll also speculate that a novel use for this drug may be in the middle/end portion of a heavy bulking or powerlifting cycle (which doesn't include another 19-nor compound), when Nilevar can be used for a month or so when the heaviest lifting is involved, and the joint relief (and obviously the anabolic effect) it provides could allow the athlete to lift heavier than would normally be possible. There are

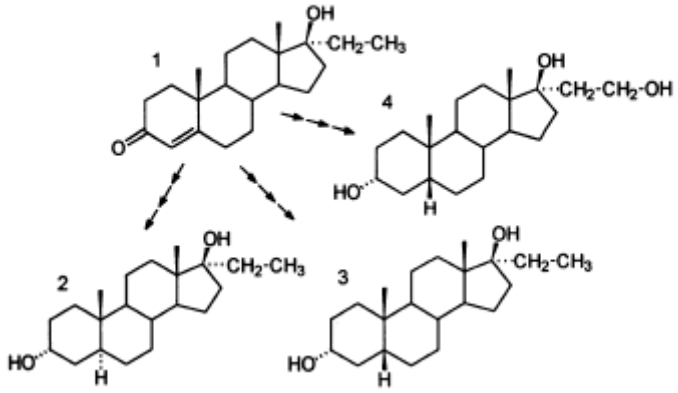
many other orals on the market which can be used for anabolism, cutting, bulking, and all related effects, but none that will provide the joint relief that it should/can. For that reason, Nilevar will always have a purpose in heavy cycles, if it can be obtained.

Before we consider putting it in our next stack, it should be noted that this compound is rarely (if ever, anymore) counterfeited, and even more rarely seen on the black market. It's not in high demand, and in fact has been taken off the shelves in the USA (and is primarily marketed in France, but also in Australia and Switzerland). Taking it off the American shelves certainly doesn't mean it's not useful. Allegedly, Arthur Jones was very fond of putting his athletes on it (instead of the more popular Dianabol), and Bill Pearl almost certainly used it as his main bulking agent for an entire cycle (10mgs/day) before a Mr. Universe win, and I wouldn't be surprised if Casey Viator and the Mentzer brothers dabbled in Nilevar**.** Based on what these guys looked like, I'd venture a guess that this drug was (and possibly still is) most commonly used for bulking, and by the larger powerlifters and other athletes not worried about staying in a particular weight class. Your best bet for finding this stuff is through a source who has a "connection" at a local pharmacy, and you'll probably be looking at a price of .20-.40 cents per 10mg tablet (it only comes in 10mg tablets). As I said, it's not exactly readily available, so that could create a bit of a seller's market. On the other hand, since it's not in high demand it could be a buyer's market. In either case, I wouldn't be thrilled with paying more than .25 cents per tab.

So let's see where that leaves us in terms of designing a cycle using Nilevar? We'd want to have a form of testosterone in our cycle, regardless of whether we're going to use Nilevar to bulk up or to get cut. Remember, Nilevar will probably reduce your natural testosterone levels to nothing. So let's say, to start off, we're looking at using injectable testosterone at roughly 400-500mgs/week, to make sure that we replace the testosterone that we're not going to produce naturally. In a bulking cycle we'd use a long ester testosterone (testosterone cypionate or testosterone enanthenate), while in a cutting cycle we'd probably want to consider the use of a shorter ester (testosterone propionate is the most popular for cutting cycles, as anecdotally, it seems to produce less water retention). We're going to avoid any form of injectable nandrolone (nandrolone decanoate, nandrolone phenyl-propionate, etc…) as well as any form of trenbolone, in this cycle, as we don't want to stack 2 progestins together (and nandrolone and trenbolone, are both progestins). So that leaves us with a host of other drugs we can stack with our Nilevar and testosterone. I'd suggest using Equipoise (boldenone undeclyenate) on a bulking cycle, at 400-600mgs. This will serve the dual purpose of keeping your red blood count high (which is important for anabolism) as well as keeping your appetite high. In a cutting cycle, I'd suggest the use of Masteron (drostanolone), at 400-500mgs/week, probably injected with the same frequency as your testosterone propionate. Now, I'd probably suggest keeping Bromocriptine on hand, and using it if you start to hold too much water or develop gynocomastia. I'd say that 1.25mgs-2.5mgs/day is enough and will prevent progesteronic side effects (as well as stimulate fat burning), and this recommendation is regardless of whether you choose to use Nilevar in a bulking or cutting cycle. We're not going to use any other orals in this cycle, either, as we've already discussed Nilevar's hepatoxic properties, and we don't want to stress our livers unnecessarily. Unlike most orals, I'd suggest using Nilevar at 20-40mgs/day in the middle of either cycle, as opposed to the beginning, so that the bulk of your heavy lifting is done while you reap the benefits of the joint protection Nilevar provides.

Proper post cycle therapy needs to be followed after any cyclecontaining Nilevar, and personally I would use: 500IU/day of HCG for 3 weeks and 20mgs of Nolvadex for 4-6 weeks starting one week after cessation of the cycle. Remember that both of these cycles should include Bromocriptine's use at 1.25-2.5mgs/day to combat progesteronic side effects, and .5-1mg/day of Femera to combat water retention and estrogenic side effects.

Here's how Norethandrolone is metabolized in your body:



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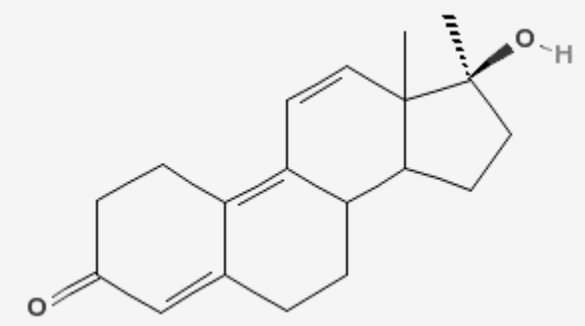
Methyltrienolone



(Methyltrienolone)
*[*17beta-Hydroxy-17-methylestra-4,9,11-trien-3-one*]*
Formula: C19H2402
Molecular Weight: 284.38
Melting Point: 170C
Manufacturer: Negma (never released), Underground Labs
Effective dose: 500-750mcgs/day
Active Life: 4-6hours
Detection Time: Unknown (Probably up to 6 weeks)
Anabolic/Androgenic Ratio (Range, estimated):12,000-30,000/6,000-7,000

Methyltrienolone (MT) is a very potent, reasonably toxic, non-aromatizing steroid. Ok. Let's go over those three points again.

First of all, MT is potent. It binds so strongly to the AR (androgen receptor) that it is often used in studies on other androgens to measure how strongly they bind. In other words, this stuff binds onto the AR receptor so strongly that it is pretty much the benchmark for that quality. If you've read my profile on trenbolone acetate (TA), you'll note that I said TA is the most potent injectable weapon in our arsenal with regards to ability to bind to the androgen receptor. That's still true, because this particular compound is not in our arsenal, and it's simply the oral version of TA (i.e. it is trenbolone which has undergone modification to become orally active, via the addition of a 17-alph-methyl group).

So why is it important that this stuff binds so tightly to the AR? Well, androgen receptors are found in both fat cells and muscle cells (8); they act on the AR in muscle cells to promote growth, and in the fat cells to affect fat burning (9)(6). The stronger the androgen binds to the AR, the higher the lipolytic (fat burning) effect on adipose (fat) tissue (9)(5). Unfortunately, that strong binding doesn't also automatically mean that it will elicit the strongest possible anabolic response, nor that the weakest bind will elicit a weak anabolic response. Anadrol has the weakest bind to the AR possible (too low to be measured), and it produces a profound anabolic response, for example. Don't be fooled by the anabolic/androgenic ratio of this (or any steroid) either. The anabolic/androgenic ratio of MT would suggest that it produces 5x the anabolic and androgenic effect of testosterone (which has a score of 100 and 100 respectively). If one were able to get a bottle of this stuff, I believe it would be best used as part of a cutting cycle, stacked with some injectables (testosterone, etc…), but certainly no other orals. It's just too toxic. Negma (the French company who brought Parabolan to the market, and then discontinued it)

never pushed MT to gain approval as a commercially released item, since their original studies showed it to be highly toxic.

But, remember, AR's are found in muscle tissue as well. When a muscle's AR is stimulated, it can induce hypertrophy. When an adipose tissue's AR is stimulated, through various related mechanisms, fat is lost. This is a gross oversimplification. Whatever. All we need to know is that when you have a steroid that binds to the AR, it builds muscle and burns fat, and a steroid that binds very tightly to the AR will stimulate a lot of muscle synthesis and burn a lot of fat. A good example of this is Trenbolone. And since I mentioned Trenbolone, it's worth further mentioning that MT is basically a 17aa (oral) version of (injectable) Trenbolone. AR binding and AR stimulation is not the only mechanism which stimulates anabolism, however. It's important to note that dbol has a very low AR binding ability and A50 has an AR binding ability that is too low to even measure! Both are very potent oral steroids, though. So while it's important, AR binding/stimulation is not the end all and be all of anabolism.

Methyltrienolone is, of course, a 19Nor compound (as is Trenbolone). It will effect your sexual drive and performance in a similar way to both Tren and nandrolone, meaning that temporary impotence and/or a lack of libido is highly possible (aka Tren-Dick or Deca Dick) (10). Also, it is a progestin, and still binds almost as well to the progesterone receptor (PgR) (3). As we know, progestins amplify estrogenic effects of aromatizing drugs. Although MT doesn't aromatize, you will still need to worry about its ability to cause side-effects by amplifying the estrogenic issues caused by the other compounds you may be taking.

How toxic is this stuff? Well, it was never commercially marketed for use in humans, and has been relegated to Steroid-Purgatory, to be used only in studies. I'd probably rate it on around the same level as taking high(ish) doses of halotestin or methyltestosterone. I'd also probably recommend that people keep doses of this product very low, much lower than reccomended doses typical of the other 2 compounds I just mentioned (i.e. 500-750mcgs/day…for not much longer than 3-4 weeks). I have had the fortune to discuss this product with the owner of an underground lab. He had given out several samples of this stuff to athletes he knew, and they all kept records and got regular bloodwork done. People who were in the 2mg/day range developed highly elevated liver enzymes and jaundice (yellowing of the eyes and skin). They all recovered, and through trial and error, a 500-750mcg dose was found to be (relatively) safe, and (roughly) as effective as 150-225mgs of Trenbolone Acetate. For women, a possible side effect of MT is virilization (development of male sexual characteristics), which is profound with this stuff (11), so it is entirely off limits for women to use.

With this stuff, you may want to take milk thistle (320mgs/day), ALA (500mgs per meal) and try some Pygeum Africanum (Permixon, the liposterolic extract of Serenoa). This stuff will protect your prostate: in one study, it inhibited competitively the binding of methyltrienolone to the cytosolic receptor of the rat prostate. You'll still need to get blood work done, avoid other orals (this includes drinking, or anything else which could tax your liver), and monitor your health closely. This isn't a drug for novices, clearly, and is probably only useful for pre-contest bodybuilders.

I've only seen MT available from one underground lab, and it came in a 50ml bottle, which was 1mg/ml, and was priced at $100. This translates to roughly 100 doses, at a reasonable cost of fifty-cents per dose. And since you would never want to run

this particular drug for longer than 3-4 weeks at a time (maybe it would have use in the last few weeks before a bodybuilding competition, but not much else), you'll get to use one bottle in 4 different cycles. That makes it no less dangerous, just reasonably cheap.

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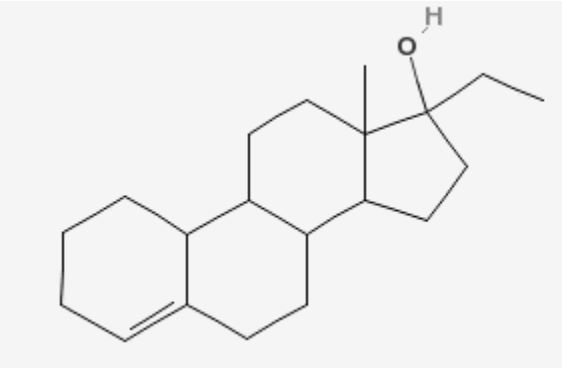
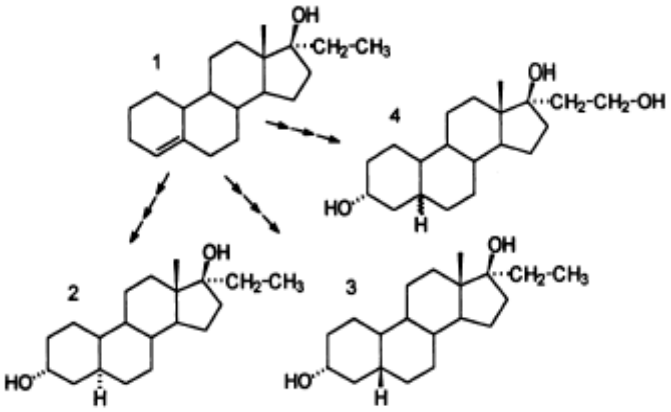
Orabolin



(Ethylestranol)
[19-Nor-17alpha-pregn-4-en-17-ol]
Formula:C20H22O
Molecular Weight:288.46
Melting Point: 76-78C
Manufacturer: Various, discontinued
Effective Dose (Men): 40mgs(?)
Effective Dose (Women): 10mgs(?)
Active life: 8-12 hours
Detection Time: 6 weeks
Anabolic/Androgenic ratio (range):20-400:200-400

What we're looking at here is yet another steroid that has been off the market for so long that I haven't been able to actually find someone who's used it. It's a 19Nor-steroid, meaning it's been derived from nandrolone. We know that 19nor compounds all bind well to the androgen receptor, and that this is part of the reason that it imparts such a strong anabolic effect. It has very good androgen binding properties, giving it good enough anabolic effect, but is actually androgenically reduced in androgen responsive tissues like prostate and skin. There are few actual studies that really examine this compound in any depth, and basically the ones I've read actually seem to suggest that ethylestronol simply exerts it's anabolic effect by making a 3-keto group and essentially converting to norethandrolone (1). I think this is why it has such a distressingly broad anabolic/androgenic range. There is also a 17-alpha-ethyl group to contend with, and that gives this compound a degree of hepatoxicity that makes the cost/benefit ratio very poor for athletes, and thus it's rarely found on the black market. The weirdest thing about Orabolin is that it comes as some kind of bizarre paste for oral administration—I really don't know why this stuff was ever brought to the market, but the fact that it comes as an oral paste is just very bizarre.

Here's how ethylestranol is metabolized in your body:



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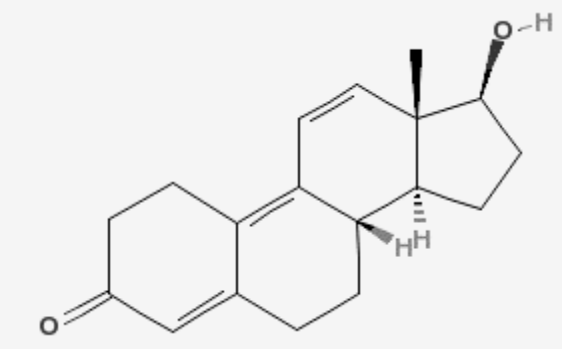
Parabolan



(Trenbolone shown without *HexaHydroBencylCarbonate ester)*
(Trenbolone Base + HexaHydroBencylCarbonate Ester)
[17beta-Hydroxyestra-4,9,11-trien-3-one]
Formula (base): C18 H22 O2
Formula (ester): C2 H4 O2
Molecular Weight: 312.4078
Molecular Weight (base): 270.3706
Molecular Weight (ester): 130.1864
Melting Point (base): 183-186C
Manufacturer: (originally) Negma, Various Underground Labs
Effective Dose (Men): 300-500mgs/week
Effective Dose (Women): Not recommended
Active life: 5-7 days
Detection Time: 4-5 weeks
Anabolic/Androgenic ratio: 500:500

Parabolan is one of those drugs which appeared briefly (Negma eventually pulled it off the market) and made a huge impact very quickly. Dan Duchaine was the first person to write about this compound in his *Underground Steroid Handbook Update Newsletter*. In his write up, he speculated that you wouldn't want to go over 2 amps per week of the original Negma product (each amp was 76mgs, and if you are wondering why that's so, it's because each amp gave the user precisely 50mgs of trenbolone, once your body's esterases cleave off the HexaHydroBencyl Carbonate ester). Unfortunately, not many people really got a chance to experiment with the original Parabolan, as it was pulled off the market very quickly by Negma (discontinued in 1997). That created a very odd situation where the product was used very successfully by a few people for a very short time, then was basically unavailable after that. This basically created a bit of a cult following for the drug. Decades passed, and counterfeits stormed the market until Duchaine (again) wrote an article on extracting the trenbolone from Finaplex pellets, and then sterilizing them, in order to create your own trenbolone acetate. Although this wasn't Parabolan, it soon curtailed the counterfeit craze for Parabolan. Tren was Tren, in most people's eyes, regardless of the ester. "Fina kits" (a kit which enabled the user to make his own Tren) then flooded the market, utilizing a loophole whereby the pellets and kit were both legal to buy, although clearly making and using an injectable steroid in your kitchen is illegal. Flashing forward a few years, trenbolone acetate became available by many underground labs, then trenbolone enanthate became available, and now, even Parabolan (which is trenbolone base + a HexaHydroBencyl Carbonate ester) is easily obtained from most major underground

labs. A visit to Steroid.com or any of the major discussion boards will testify that Parabolan's cult following still hasn't diminished. Let's see why…

Parabolan is neither affected by aromatase or 5alpha-reductase. This means it becomes neither weaker nor stronger in androgen responsive target tissues, a trait usually shared by DHT (DyhydroTestosterone) derived steroids; since Parabolan is of course a trenbolone, it is not actually DHT derived but rather is derived from 19-Nor-testosterone. Parabolan has no estrogenic activity (it may actually reduce serum estradiol levels in the body), is a very strong anabolic and androgenic compound (5x stronger than testosterone in both categories!) and binds well to the androgen receptor. Actually, binding "well" to the androgen receptor is quite an understatement. There's no injectable AAS in our arsenal that binds to the androgen receptor (AR) as well as trenbolone does. This is probably a major reason that Parabolan was so sought after for use as a precontest agent. Androgen receptors are found in fat cells as well as muscle cells (8), and we all know that they act on the AR in muscle cells to promote growth, but the androgens act directly on the AR in fat cells to affect fat burning (9)(6). The stronger the androgen binds to the AR, the higher the lipolytic (fat burning) effect on adipose (fat) tissue (9)(5). As if that's not enough good news, some steroids even increase the numbers of AR in muscle and fat (9)(10), leading me to speculate that this fat losing effect would be amplified with the concurrent use of other compounds, such as injectable testosterone.

Another mechanism whereby Parabolan causes muscle accumulation and fat loss is it's ability as a nutrient partitioning agent (7). Basically, what this means is that while using Tren, more of the food you eat will become muscle and less (if any) will become fat. Really, as you can see, most of Parabolan's cult reputation is well deserved, and—as if that's not enough—Parabolan noticeably increases the level of the IGF-1 within muscle tissue (2), which in itself is an extremely anabolic hormone. It's worth noting that not only does it increase the levels of IGF-1 in muscle over two fold (2), it also causes muscle satellite cells (cells that repair damaged muscle) to be more sensitive to IGF-1 and other growth factors (3). This leads me to speculate that Parabolan (or any version of Tren) would be synergistic within a cycle containing any form of injectable IGF-1.

Parabolan also happens to bind quite strongly to the glucocorticoid receptor as well, and this in turn imparts a nice anti-catabolic effect. This, in part, may help to explain why low(ish) doses of it seem to work nicely, as well as why it aids fat loss. You see, glucocorticoid hormones send a message to muscle cells to release stored protein (this is called catabolism), which is exactly the opposite of what we want.

This drug stacks well with mostly everything, especially testosterone (actually, if you want to avoid sexual dysfunction, stacking it with test is necessary). I have also found it to be a great addition to a stack containing Eq as well, unfortunately the insomnia the Parabolan gives me added to the appetite the Eq gives me makes midnight snacking almost inevitable. Parabolan is most often used in cutting stacks when "quality muscle" gain is favored over bloat and water retention. Really, I think Parabolan (or any Tren) is a great "cutting " anabolic, although it has been used successfully by many in both Cutting and Bulking cycles.

It''s not all good news, though…

Some users of Para report sexual dysfunction (Tren-Dick) and symptoms of gyno (probably progesterone related, as Trenbolone acts on progesterone receptor but not

the estrogen receptor). As you know, Trenbolone is unfortunately, a progestin: it binds to the receptor of the female sex hormone progesterone (with about 60% of the actual strength progesterone) (4). In hyper-sensitive Steroid.com members this lead to bloat and breast growth when combined with an estrogenic or aromatizable product, but probably not without one (14); worse still, trenbolone's active metabolite (17beta-trenbolone) has a binding affinity to the progesterone receptor (PgR) that is actually greater than progesterone itself (5). No need to panic though: the aromatase inhibitor Lertrozole can also lower progesterone levels and combat any progestenic sides. I would strongly consider its inclusion at .25-.5mgs/day in a cycle containing Parabolan.

Ironically, even though Para is an excellent cutting drug, it will lower your thyroid level (11). Doing this, by means of the body's negative-feedback-loop, also raises prolactin. Ergo, I recommend taking T3 (25mcgs/day) along with your Tren to avoid suffering from increased levels of prolactin and the host of unwanted side effects this could cause. For these reasons, many people avoid stacking Tren with Deca (nandrolone decanoate), which is also a progestin (4).

Mental changes are a notorious side effect of any type of trenbolone use (12), and Para is no exception to this rule. Androgens increase chemicals in the brain that promote aggressive behavior (13), which can be beneficial for some athletes wanting to improve speed and power, but perhaps detrimental to those trying to hold a job as a social worker. Luckily, I am not generally known for being an ambassador of goodwill, so this side effect goes largely unnoticed in me.

For me, the worst effect of any sort of Tren is "Tren cough" which I get for the first 2 weeks of a cycle including this compound. Tren Enanthate does not have this effect on me, but Parabolan sometimes does; Tren Acetate gives me a crippling Tren-cough for the first week or so that I'm on it. Also, any kind of Tren gives me a bit of insomnia, which is common for many users. The most noticeable side effect of Parabolan for me is that it increases my sweating dramatically, even giving me vicious "night sweats" that go nicely with my insomnia. Walking up a flight of stairs can also cause me to break out in beads of sweat when I'm on this product. Also, it needs to be noted that many people experience a reduced cardiovascular capacity when using Para (12), and I fall into this category as well. Still, its incredible effects on my strength and appearance mean that it'll fall into my cycles for off seasons and in the winter (when sweating won't be as much of a problem).

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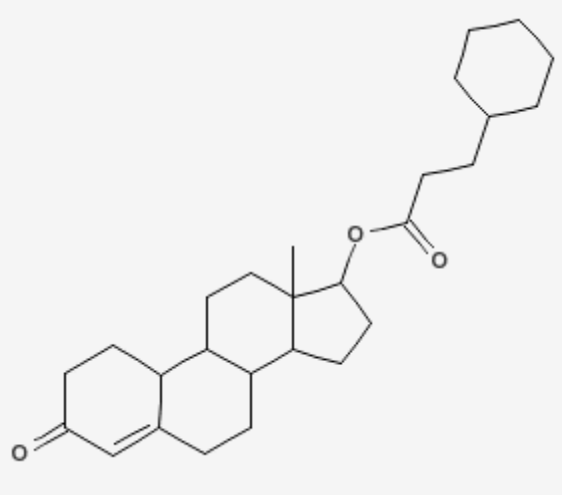
Sanabolicum



(Nandrolone shown with CycloHexylPropionate ester)
(Nandrolone + CycloHexylPropionate Ester)
(17b-Hydroxy-19 -nor -4 -androsten-3-one-17–phenylpropionate)
Formula (base): C18 H26 O2
Formula (ester): C9 H16 O2
Molecular Weight: 412.6112
Molecular Weight (base): 274.4022
Molecular Weight (ester): 156.222
Melting Point (base): 122-124°C
Manufacturer: Nile (Egypt), and others
Effective Dose (Men): 200-600mgs/week (2mg/lb of Bodyweight)
Effective Dose (Women): 50-100mgs/week
Active life: 13.5
Detection Time: Up to 18 months
Anabolic/Androgenic ratio: 125:37

Sanabolicum, or nandrolone CycloHexylPropionate is a rarely found version of the anabolic androgenic steroid nandrolone, with a CycloHexylPropionate ester.

Nandrolone probably the most talked about anabolic steroid on the planet. It is a drug derived from the hormone testosterone, with a slight modification taking the form of a carbon atom removed from the 19th position of the molecule. For this reason, it is also called a 19-nor testosterone compound. The modification makes nandrolone more anabolic (muscle building) and less androgenic (producing of male characteristics) than its parent hormone. Testosterone, the standard for that ratio, has an anabolic/androgenic ratio of 100:100 (arbitrarily determined as a benchmark). Nandrolone's anabolic/androgenic ratio is 37:125.

Nandrolone's popularity partly stems from its versatility; it can be used to reach virtually any bodybuilding or athletic goal, and has an outstanding safety record among its users. The medical industry uses nandrolone to treat anemia, debility, disease and severe wasting disorders. It is commonly administered to H.I.V positive patents to reverse muscle break down (catabolism) and improve immune function (1)(2). It has numerous benefits for the hard training athlete and very few side effects. First off, nandrolone is an excellent drug for building muscle via different

mechanisms of action, some less understood that others. Nandrolone promotes nitrogen retention in the muscle cell (3), which in turn promotes the muscle cell to synthesize and store more protein. The drug also increases the levels of the highly anabolic hormone IGF-1 inside muscle tissue (4). Nandrolone also significantly increase the levels of androgen receptors in muscle (5). Athletes who participate in regular strenuous physical activity will appreciate the effects of nandrolone, proven to significantly improve endurance (6). It can also dramatically improve recovery by increasing the number of red blood cells (1), which in turn will help in the removal of lactic acid and improve oxygen delivery to working muscles; it will also speed the rate of glycogen replenishment after exercise (7). One thing that puts nandrolone above all other steroids taken by athletes is its ability to improve joint function and reduce joint pain by improving collagen synthesis and bone mineral content (8)(9). In fact, a common saying by Steroid.com's nandrolone fans is "I feel like I'm 20 again!" when on cycle. Muscle building and "lubed" joints are not the only positives of nandrolone use; it seems to be a good fat loss agent (10), and the amount of fat loss and from where, is dose dependant, with higher dosages producing overall better results (11). The good stuff does not end there, as nandrolone does not only affect your body but your mind as well by increasing chemicals in the brain such as seratonin and norepinephedrine; this will help an athlete train harder and improve speed and power, while at the same time is probably responsible for the enhanced feeling of "well being" many Deca users report (12).

Nandrolone has a safety record that cannot be beat, although it still has some drawbacks, since its chemical structure aromatizes (converts to the female hormone estrogen via the aromatize enzyme) slightly, at about 20% the rate of testosterone. Thus, adverse estrogenic side effects such as breast tissue growth (gynecomastia or bitch tits) and fat gain are not a major concern. With its low androgenic properties, prostate and hair loss problems are not commonly reported by Steroid.com members. One thing that must be mentioned is the notion that nandrolone aromatizes into the female hormone progesterone. This is not entirely true. Nandrolone, being a progestin, directly acts on the progesterone receptor (PgR) without needing to change chemically. Fortunately, the binding rate to the receptor is fairly low (about 20% of the actual progesterone hormone itself) (13). If you are prone to progestinic sides there are various drugs to available to combat them. Fulvestrant or Letrozole can be taken to reduce the number of progesterone and estrogen receptors (14), and with less receptors to attach to, these hormones will not be able to exert their actions on the body. Letrozole also has the added benefit of reducing estrogen levels to nothing—which would certainly cut down on sides—as without estrogen present, most of the ill-effects of any aromatizing (or even progestenic) steroids aren't really possible. The use of a progestin also raises the level of another female sex hormone, prolactin. Bromocriptine and cabergoline are drugs that activate the dopamine receptor to lower prolactin levels. Shrunken balls (testicular atrophy) may be a problem from elevated prolactin as well; HCG (a female hormone that acts like LH when introduced into the male body) used during the cycle can best remedy the condition (15). The heart conscious bodybuilder need not worry about cholesterol if choosing to use nandrolone—in a study, H.I.V+ men given nandrolone had no negative affects on lipid profile (16).

Sanabolicum, nandrolone CycloHexylPropionate (mouthful huh? We'll use N-CHP from now on) is indeed a rare and unusual find anywhere in the athletic world. To figure out how to use it in a cycle, now the ester itself must be analyzed. As we all know, esters delay the release of a hormone, and N-CHP has 9 carbons. This hints that it is a long acting ester comparable to cypionate, (8 carbons) or decanoate, (10

carbons) with an active life of about 13.5 days. I would compare its effects to nandrolone decanoate, aka, Deca-Durabolin thus dosage amount and frequency should be near the same. Thus, once per week injections can keep blood levels stable. Most Steroid.com members however inject 2 times per week, or every 3rd day.

Now that we know the potential usage for anabolism, let us look at how it can be incorporated into a cycle of a Steroid.com member. Since it is similar to Deca, slow, high quality muscle gains can be expected along with significant water retention. So, our first choice would be to use Sanabolicum in a "bulking" cycle, stacked with a testosterone, of course, and another "bulk" promoting drug like Dianabol or Anadrol. That's a formidable stack, and great gains in size and strength can be realized. Nandrolone, being a compound that promotes fat loss, can also be used in a "cutting" cycle without problems stacked with testosterone and a low or non aromatizing oral like stanozolol, (Winstrol, Winny) oxandrolone, (Anavar, Var) or oral-turinabol (OT). Lean muscle gains with reduced body fat can be attained. It must be noted that you should avoid combining anabolic steroids with progestin attributes, e.g. Fina (aka Tren)+Deca, as this will only prove bothersome when you are shelling out cash on drugs to fight the sides. It's common practice to run testosterone one week longer than nandrolone to "line up" timing for post cycle therapy. This is to be recommended with Sanabolicum, as it is going to have a residual effect when it's not producing an anabolic effect yet it will still suppressing your natural testosterone levels. It's recommended that testosterone be run about 2 weeks longer than the Sanabolicum to combat this. Due to extremely low availability and a similar drug easily available, sanabolicum may never catch on as the anabolic of choice for nandrolone lovers.

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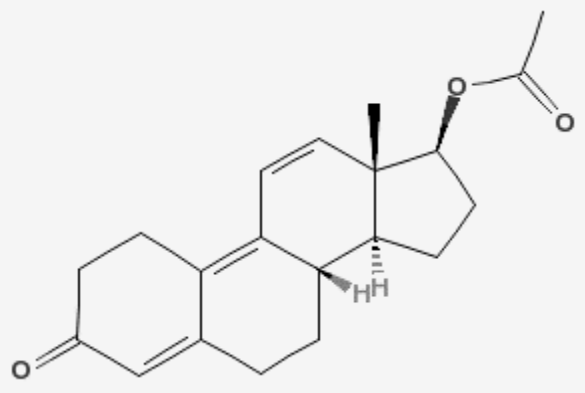
Trenbolone Acetate



(Trenbolone shown with Acetate Ester)
(Trenbolone Base + Acetate Ester)
[17beta-Hydroxyestra-4,9,11-trien-3-one]
Formula (base): C18 H22 O2
Formula (ester): C2 H4 O2
Molecular Weight: 312.4078
Molecular Weight (base): 270.3706
Molecular Weight (ester):60.0524
Melting Point (base): 183-186C
Melting Point (ester):16.6C
Manufacturer: Cattle implants, British Dragon, Various
Release Date (United States): 1987
Effective Dose (Men):50-150mg ED
Effective Dose (Women): Not recommended
Active life: 2-3 days
Detection Time: 5 months
Anabolic/Androgenic ratio: 500/500

The drug trenbolone is, without a doubt, the most powerful injectable anabolic steroid used by Steriod.com members to gain muscle. However the full properties of the drug are not always fully understood. This profile will separate fact from fiction and help Steroid.com members decide if trenbolone is right for them.

Trenbolone is similar to the highly popular steroid nandrolone, in that they are both 19-nor steroids, meaning that a testosterone molecule has been altered at the 19th position to give us a new compound. Unlike nandrolone however, trenbolone is an excellent mass and hardening drug with the majority of gains being muscle fiber, with minimal water retention (1). It has an unbelievable anabolic (muscle building) score of 500. When you compare that to testosterone, which itself is a powerful mass builder but has an anabolic score of 100, you can begin to fathom the muscle building potential of trenbolone. What makes trenbolone so anabolic? Numerous factors come into play. Trenbolone greatly increases the level of the extremely anabolic hormone IGF-1 within muscle tissue (2). And, it's worth noting that not only does it increase the levels of IGF-1 in muscle over two fold, it also causes muscle satellite cells (cells that repair damaged muscle) to be more sensitive to IGF-1 and other growth factors (3). The amount of DNA per muscle cell may also be significantly increased (3).

Trenbolone also has a very strong binding affinity to the androgen receptor (AR), binding much more strongly than testosterone (4). This is important because the stronger a steroid binds to the androgen receptor, the better that steroid works at activating AR dependant mechanisms of muscle growth. There is also strong supporting evidence that compounds binding very tightly to the androgen receptor also aid in fat loss. Think of the receptors as locks and androgens as different keys, with some keys (androgens) opening (binding) the locks (receptors) much better than others. This is not to say that AR-binding is the final word on a steroid's effectiveness. Anadrol doesn't have any measurable binding to the AR, and we all know how potent Anadrol is for mass-building.

Trenbolone increases nitrogen retention in muscle tissue (5). This is of note because nitrogen retention is a strong indicator of how anabolic a substance is. However, trenbolone's incredible mass building effects do not end there. Trenbolone has the ability to bind with the receptors of the catabolic (muscle destroying) glucocorticoid hormones (6) giving it anti-catabolic properties as well. This has the effect of inhibiting the catabolic (muscle destroying) hormone cortisol (7).

Yet another amazing trait of trenbolone that must be noted is its ability to improve feed efficiency and mineral absorption in animals given the drug (8). To help you understand what this means for you, feed efficiency is a measurement of how much of an animal's diet is converted into meat, and the more food it takes to produce this meat, the lower the efficiency. Conversely, the less food it takes to produce meat, the higher the efficiency—well you get the idea. Animals given trenbolone gained high quality weight without having their diets adjusted, thus improving feed efficiency. Finding new compounds that can improve feed efficiency is a billion dollar industry, and has spawned many nutritional advances in the bodybuilding world over the last few decades (CLA, Whey Protein, and HMB are compounds which spring to mind as having first been introduced by the livestock industry). What does this translate to for the hard training athlete? The food you eat will be better utilized for building lean muscle, and vitamins and minerals are also better absorbed, which may keep you healthier during cycle.

Trenbolone is also a highly androgenic hormone, when compared with testosterone, which has an androgenic ratio of 100; trenbolone's androgenic ratio is an astonishing 500. Highly androgenic steroids are appreciated for the effects they have on strength as well as changing the estrogen/androgen ratio, thus reducing water under the skin. As if the report on trenbolone were not good enough, it gets better; trenbolone is extraordinarily good as a fat loss agent. One reason for this is its powerful effect on nutrient partitioning (9). It is a little known fact that androgen receptors are found in fat cells as well as muscle cells (10). Androgens act directly on the AR in fat cells to affect fat burning (11). The stronger the androgen binds to the AR, the higher the lipolytic (fat burning) effect on adipose tissue (fat) (11). Since some steroids even increase the numbers of AR in muscle and fat (11)(12), this lypotropic (fat losing) effect would be amplified with the concurrent use of other compounds, such as testosterone.

Trenbolone promotes red blood cell production and increases the rate of glycogen replenishment, significantly improving recovery (13). Like almost all steroids, trenbolone's effects are dose dependant with higher dosages having the greatest effects on body composition and strength. Mental changes are a notorious side effect of trenbolone use (15); androgens increase chemicals in the brain that promote

aggressive behavior (16), which can be beneficial for some athletes wanting to improve speed and power.

Trenbolone's chemical structure makes it resistant enzymes that aromatize (conversion to estrogen), thus absolutely no percentage of trenbolone will convert to estrogen. Trenbolone administration would not promote estrogenic side effects such as breast tissue growth in men (gynecomastia, bitch tits) accelerated fat gain, decline in fat break down and water retention. Trenbolone is also resistant to the 5-alpha-reductase enzyme; this enzyme reduces some steroid hormones into a more androgenic form. In trenbolone's case however this does not matter, trenbolone boasts an androgenic ratio of 500, it can easily cause adverse androgenic side effects. In any Steroid.com members who are prone to cases of hair loss, prostate enlargement, oily skin and acne have been reported. Unfortunately trenbolone's potential negative side effects do not end there. Trenbolone is also a noted progestin: it binds to the receptor of the female sex hormone progesterone (with about 60% of the actual strength progesterone) (17). In sentitive Steroid.com members, this can lead to bloat and breast growth or worse still, trenbolones active metabolite17beta. Trenbolone has a binding affinity to the progesterone receptor (PgR) that is actually greater than progesterone itself (18). No need to panic though, the anti-estrogens Letrzole or Fulvestrant can lower progesterone levels, and combat any progestenic sides. The use of a 19-nor compound like trenbolone also increases prolactin. Bromocriptine or cabergoline are often recommended to lower prolatin levels (20). Testicular atrophy (shrunken balls) may also occur; HCG used intermittently throughout a cycle can prevent this (21). It is also wise for Tren users to closely monitor their cholesterol levels, kidney function, and liver enzymes as Tren has the potential to negatively affect all of those functions. Trenbolone, being a powerful progestin, will also shut down natural testosterone production—even a relatively small dose will keep the testosterone level suppressed for an extended period of time. This can lower libido and cause erectile dysfunction (fina dick). It is essential that you always stack trenbolone with testosterone.

The acetate ester is a very short-chain ester attached to the trenbolone molecule. It has an active life of 2-3 days but to keep blood levels of trenbolone elevated and steady, daily injections are often recommended. The acetate ester provides a rapid and high concentration of the hormone, which is beneficial to those seeking quick gains. When coupled with a rapid clearing time, the acetate ester can be discontinued on the onset of adverse side effects.

Now that the properties of trenbolone acetate have been explained, we can better understand how to use it in order to maximize its advantages. Evidence suggests that trenbolone stacked with estrogen promotes more weight gain that trenbolone alone (22). Now I'm not telling you to go pop some birth control with your trenbolone, but the addition of aromatizing orals such as Dianabol and a long estered testosterone such as cypionate or enanthate would produce great gains in a bulking cycle. For a cutting cycle, trenbolone is the best choice you have; trenbolone's powerful effect on nutrient shuttling allows a user to restrict calories and remain in a state of positive nitrogen balance (remember what that means?). The cortisol reducing effect, and its binding to the glucocorticoid receptor will greatly reduce the catabolic effects of harsh dieting and excessive amounts of cardio, not to mention that trenbolone itself may burn fat (due to its strong AR-binding). A good choice to stack with Tren in a cutting cycle is Winstrol. Winstrol has a low binding affinity to the AR and thus will act in your body in vastly different ways than the Tren (i.e. in non-receptor mediated action). In addition, Winstrol is a DHT-based drug and Tren is

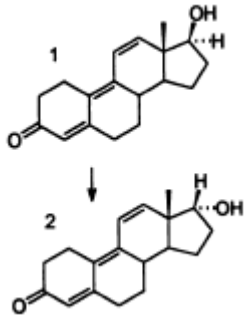
a 19-nor. Throw in some Testosterone (prop), and you'll have a cutting cycle which takes advantage of all 3 major families of Anabolic Steroids (Testosterone, 19-nor, and DHT), as well as vastly different AR-binding affinities and mechanisms of action.

Ironically, even though Tren is an excellent contest prep drug, it lowers your thyroid level (this, by means of the body's negative-feedback-loop, also raises prolactin). I recommend taking T3 (25mcgs/day) along with your Tren.

Also, this drug is a poor choice for athletes who rely on cardiovascular fitness to play a sport. Tren, anecdotally at least, reduces many athletes' ability to sustain high levels of endurance. Unfortunately, this makes Tren a poor choice for many.

As of now the main source of trenbolone is from implants for cattle being converted into an injectable or transdermal compound, from powder, and of course underground labs. "Home brewing" powder or cattle implants seems to be the preferred method of obtaining injectable trenbolone acetate, because the user would have much more control over the potency and sterility of the drug. Trenbolone is much more expensive than other anabolic steroids ranging from 15 U.S dollars per gram of powder or 150 U.S for a single 10 ml bottle. The cost of trenbolone should not matter—it is worth every penny.

Here's how Trenbolone is Metabolized in your body:



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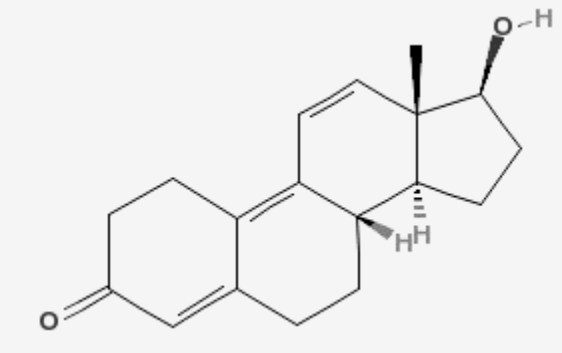
Trenbolone Enanthate



(Trenbolone without Ester shown)
(Trenbolone Base + Enanthate Ester)
[17beta-Hydroxyestra-4,9,11-trien-3-one]
Formula (base): C18 H22 O2
Formula (ester): C7 H12 O
Molecular Weight (base): 270.3706
Molecular Weight (ester): 130.1864
Melting Point (base): 183-186C
Manufacturer: Stark, Dpharm, Various
Effective Dose (Men): 300-600mgs/wk
Effective Dose (Women): Not recommended
Active life: 8 days
Detection Time: 5 months
Anabolic/Androgenic ratio: 500/500

Trenbolone enanthate was the steroid produced by underground labs to take the place of Parabolan, and its obscure ester. Tren enanthate basically is the longest acting version of tren we have available on the market right now, and it actually offers a couple of advantages over the traditional Tren A that's been available for the last couple of years as either an UG Product, or from converting Finaplex Pellets into an injectable.

I had the opportunity to be one of the first athletes in the world to try this product, from the UG "Stark Labs." It was so new, in fact, that when I sent it away for testing, the lab told me that they had nothing to really compare it to, and that they were simply estimating potency and legitimacy based on the respective values for the Trenbolone molecule and the Enanthate ester.

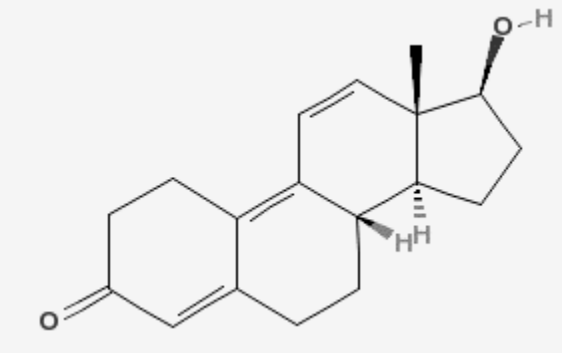
I'm not going to go into the various merits of trenbolone, but I would like to discuss some unique properties the Enanthate version has. For one reason or another, this stuff doesn't give me tren cough, and I am particularly susceptible to this side-effect of Tren, which basically cripples me for the first week I use it. Regardless of whether I use home-brewed Tren, UG lab Tren, or Vet-Grade, I was basically crippled for the first week of use. I can't tell you why, exactly, this was, and can only speculate that it was due to a rise in prostaglandins. Tren enanthate didn't have this effect on me, however. Yeah, that's right. I know that the ester attached to a steroid doesn't dictate any of its properties, but in this particular case, I believe that the enanthate ester provided less of a sharp rise in prostaglandin levels and allowed my body to not

develop the dreaded "tren-cough" that usually side-lines me when I start a cycle including Tren.

There is a method of prostaglandin production whereby prostaglandins made from one pathway in particular happen to dictate some muscle constriction as well as platlet aggregation, while the other method of production dictates bronchial constriction, and this could possibly be the means by which Tren Acetate causes that vicious cough. The reason why—though this is speculation—the enanthate version doesn't cause this rapid rise in prostaglandins is because of its more steady release, and my body's ability to gradually acclimatize itself to this. If you look at the graphs in the Minto studies (in the Deca profile), you'll see that the rise and rapid peak in blood plasma levels afforded by short esters are profoundly higher than those provided with longer esters, and it's my belief that the enanthate ester provides a lower peak level and less rapid rise in prostaglandin levels, especially the ones which dictate that second form of prostaglandin release which causes bronchial constriction. I feel that this bronchial constriction never really leaves you while you use any form of Tren, and this is what causes the shortness of breath experienced by many athletes on Tren.

Anyway, clearly the long estered Tren is a viable compound for those who wish to make minimal injections, and still use a nice lean-mass providing, non-aromatizing anabolic.

Tri-Trenabol



(Trenbolone without Esters Shown)
(Trenbolone Base + Acetate, Hexahydrobenzylcarbonate, & *Enanthate esters)*
[17beta-Hydroxyestra-4,9,11-trien-3-one]
Formula (base): C18 H22 O2
Formula, esters
Acetate: C2 H4 O2
Hexahydrobenzylcarbonate: C2H4O2
Enanthate: C7 H12 O
Molecular Weight (base): 270.3706
Molecular Weight, esters
Acetate: 60.0524
Hexahydrobenzylcarbonate: 130.1864
Enanthate: 130.1864
Melting Point (base): 183-186C
Manufacturer: British Dragon
Effective Dose (Men):50-150mg ED
Effective Dose (Women): Not recommended
Active life: 8 days
Detection Time: up to 5 months
Anabolic/Androgenic ratio: 500/500

Tri-Trenabol is British Dragon's trenbolone blend. It's been formulated with three different esters: trenabolone accetate, trenbolone hexahydrobenzylcarbonate, and trenbolone enanthate (for details on each specific trenbolone ester, see: Trenbolone Acetate, Parabolan, and Trenabol 200). The acetate ester allows Tri-Trenabol to display a rapid elevation of blood plasma levels of trenbolone. The other two esters (hexahydryobenzyclcarbonate and enanthate), which release at differing but slower rates, prolong the blood plasma levels of trenbolone.

Here's how it breaks down:

Trenbolone Acetate: 50mgs

Trenbolone Hexahydrobenzylcarbonate: 50mgs

Trenbolone Enanthate: 50mgs

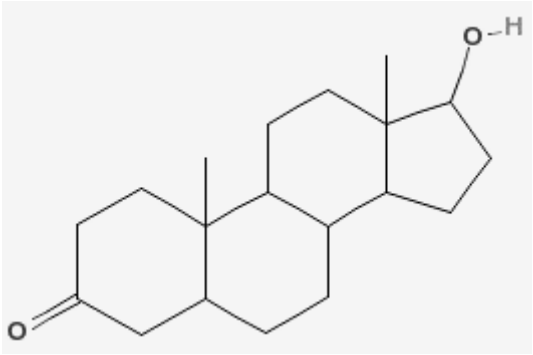
Regardless of the ester, trenbolone is a very potent androgen with strong anabolic activity. It can be used for mass development or it can be used for cutting (which is more common) and is well suited for either. Due to its progestenal nature, testosterone must always be stacked with it, altough trenbolone does not convert to estrogen.

Tri-Trenabol would probably be used for cutting, and one would probably stack it with an anabolic such as Winstrol or Primobolan (and testosterone, as previously discussed). Bulking with this product is also highly possible, and with the addition of compounds like Dianabol and Testosterone, quality muscle mass would be quickly accrued.

Dihydrotestosterone

Derived Steroids

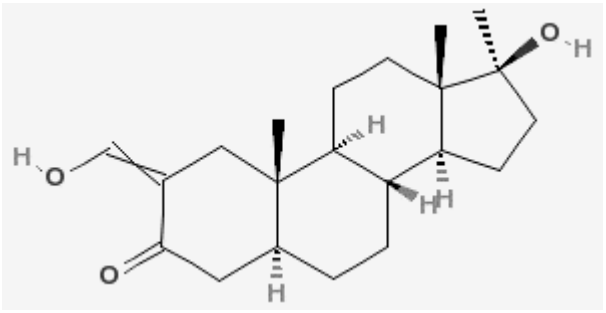
Dihydrotestosterone Derived Steroids



As you know, some steroids are derived directly from Dihydrotestosterone; these incluse Oxandrolone, Methenolone, Drostanolone, Stanozolol, Oxymetholone, and Mesterolone. Below is a partial list of some traits and effects that most, if not all, dihydrotestosterone derived steroids have attributed to them:

- Does not convert to estrogen (structurally incapable)
- Is not able to be 5-Alpha-Reduced
- Has a nice balance of androgenic and anabolic properties
- Generally considered very safe in terms of side effects
- Possibly the less suppressive than other derivations (either test or 19-nor)
- Possible anti-estrogenic effects
- Possible anti-progestenic effects
- Can cause hairloss
- Can cause acne
- Possibly able to cause joint problems

Anadrol 50



(Oxymetholone)
[17 beta-hydroxy-2-hydroxymethylene-17 alpha-methyl-5 alpha-androstan-3-one]
Molecular Formula: C21 H32 O3
Molecular Weight: 332.482
Melting Point: 178-180C
Manufacturer: Syntex (Originally)
Release Date: 1960
Effective Dose: 100mgs (optimal)
Active Life: <16hours
Detection Time: up to 8 weeks
Anabolic/Androgenic Ratio: 320:45

Anadrol (commonly called by athletes "A50" or "A-bombs") was initially developed as a compound to help people with anemia, and has since been used very successfully to aid people who are suffering from many other diseases where weight loss is a concern. Thus, it is clearly an effective agent for promoting weight gain, increasing appetite, gaining strength, and increasing red Blood cell count. And, as with most Anabolic/Androgenic Steroids (AAS), it has its downsides as well. Anadrol will inhibit your body's natural production of hormones (testosterone, etc), will negatively affect your blood lipid profile, can cause water retention, is notorious for causing headaches and is also highly liver toxic (in fact, it has the worst reputation for hepatoxicity out of all steroids). Paradoxically, although one of the benefits touted by its original manufacturer (Syntex) is that it can be used to stimulate weight gain through increasing appetite, taking too much may actually inhibit your appetite!

I think, in order to gain a complete understanding of this compound, we need to take a look at its advantages contrasted with its disadvantages. Anadrol is a DHT-derived compound, and is a 17-Alpha-Alkylated steroid, meaning that it has been altered at the 17th carbon position to survive oral ingestion. Most oral steroids are 17aa, and this helps them make it through your liver in a useful form. Sounds great, right? Let's 17alpha-alkylate everything! Well…as you can imagine, there's a down side. This 17aa alteration, which makes it possible for Anadrol to survive its first pass through your liver, also makes it very taxing on your liver. How taxing is A50 and how much weight can you gain from its use? Well, there was a 30 week study done on A50 and, as you can expect, a reasonable amount of side effects were noted. The fact that A50 causes some side effects has really never been in debate. But how effective was the drug? Well, first it should be mentioned that this study was done on people with AIDS related wasting, and they actually gained weight (8+kg) while the control group lost weight and had increased mortality rates (1). I suppose, if you're in a study because you have a wasting disease which is also a terminal illness, you

don't want to end up in the control group. Anyway, weight gain in this study peaked at 19-20 weeks, though, so the last 10 weeks weren't very productive in this respect. Clearly, you wouldn't want to run Anadrol for 20 weeks, given its toxicity, but after that, any effect in terms of weight and strength gains would be negligible anyway. The sheer fact that this study lasted so long (30 weeks) should make it apparent that sides can be kept under control and the drug can be used safely. People are commonly told to limit their intake of A50 to 4 weeks or less. I'm a bit less conservative and think you can easily run A50 for 6 weeks or more. From personal experience, however, I can tell you that gains from Anadrol are quite dramatic for the first 3 weeks, and then quickly level off. Unfortunately, I find that the side effects experienced from Anadrol (which include, for me, a headache, bloating, elevated blood pressure, and a general "unwell" feeling) remain for the entire duration of use, but I find, as usual, side effects for this drug are pretty much half legend and half truth.

Since Anadrol is derived from DHT, it can't actually convert to estrogen (via the aromatase enzyme), and it's not a progestin or a compound with progestenic activity, so the estrogenic side effects it produces are of a very mysterious nature. It has been speculated that perhaps it can stimulate the estrogen receptor without actually being converted to estrogen, that's about as plausible an explanation as I've heard. However, things really get strange when Oxymetholone is used in studies to alter the female reproductive/menstrual cycle; in those cases, it has lowered plasma progesterone levels (7)! One would expect that an AI (aromatase inhibitor) wouldn't be of much use with this drug, but many have found that Letrozole (which has, in some cases, been shown to reduce estrogen in the body to an undetectable amount) (6) can greatly reduce or even eliminate many of the more noticeable side effects of Anadrol, such as the bloating.

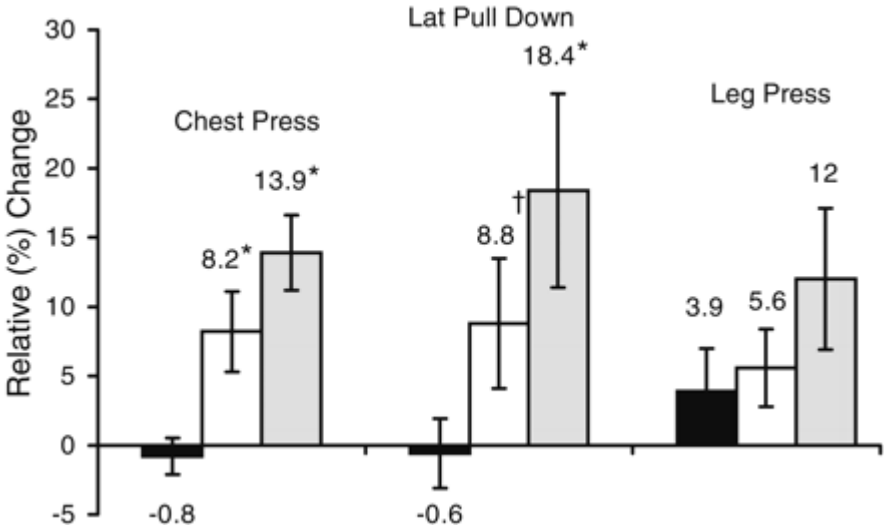
As I've stated, however, the sides from this drug are certainly no joke, but are easily preventable and controlLable. One study even showed very few sides for subjects using up to 100mgs of Oxymetholone (2). In the original *UnderGround Steroid HandBook*, Dan Duchaine states that he used it at doses up to 150mgs/day. Clearly, Anadrol's hepatoxicity has been a bit exaggerated, in some circles. Be that as it may, my suggestion is still to limit Anadrol's use to 6 weeks, at a maximum even if just to err on the side of caution. Of course, I have personally run this drug for much longer.

How should we use Anadrol? I'd probably be willing to include Anadrol in a cycle including injectable steroids, but not other 17aa compounds. I'd make any 6-week-run of this compound begin at the start of a cycle, as a form of "jumpstart" towards seeing gains quickly. The quick gains you will get from Anadrol (up to a pound per day for the first 2 weeks are not uncommon in Steroid.com members) are also just as quick to disappear upon cessation of use, unless you are simply using it as a kickstarter, while waiting for your other compounds to kick-in. I'll go out on a limb here and say that utilizing Anadrol as a "Jumpstart" is the most popular use of this drug for athletes and bodybuilders today. I'll also say that this drug is immensely popular with strength athletes who don't have to worry about weight classes (field athletes and strongmen), and with powerlifters in the heavier weight brackets. It's also important to note that in one study by Schroder et. al (2), Anadrol showed that it has the ability to lower serum SHBG (Sex Hormone Binding Globulin, which binds to your free test and makes it no longer useful for anabolism, among other things) concentrations by 54.9 ± 25.8 and 45 ± 16.2 nmol/l in the 50- and 100-mg treatment groups. This means there will be more free test circulating around your

body when you take this drug. Clearly, this would produce some synergy when stacked with other steroids. Given the large amounts of weight and strength which can be gained in a relatively short time span on this drug, I'm sure this comes as no surprise to many.

Another important and often understated characteristic of this compound is that Oxymetholone doesn't bind well to the androgen receptor (Relative Binding Affinity = too low to be determined) (3); its rate is the lowest I've ever read about. Basically, what this tells me is that there are a lot of non-receptor mediated effects from this steroid, making it a very potent addition to ANY BULKING stack, because it won't be competing for the receptor sites with the other steroids you're using. It's also, as you may have guessed, a very poor choice for a cutting stack.

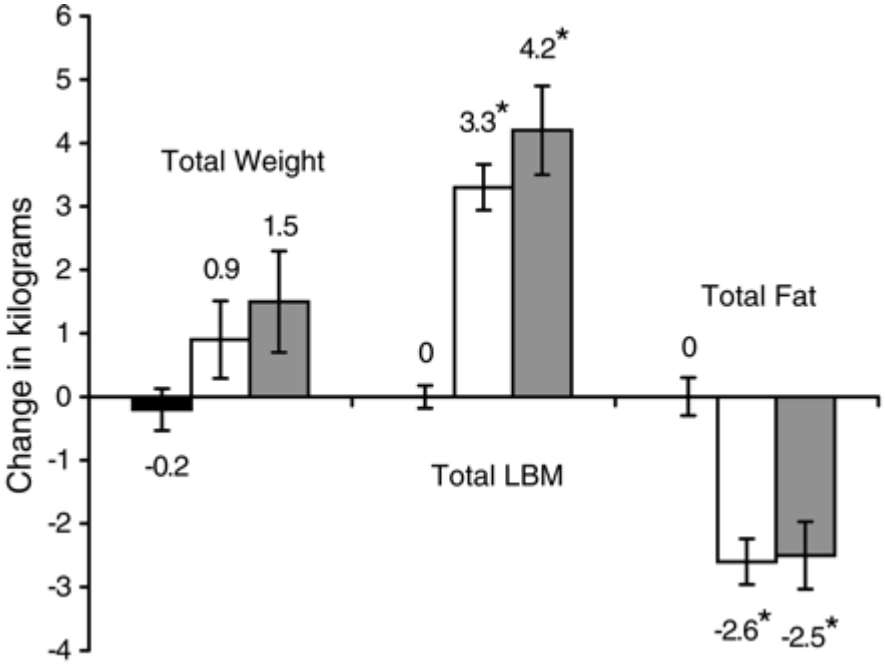
How much should you use? Well, this is actually one of the most interesting facts about Anadrol. You see, most steroids produce what we call a "dose respondent curve" which is a fancy way of saying, "the more you use, the more you gain." Anadrol is one of the few steroids where the dose respondent curve flattens out very quickly. When you take 50mgs of Anadrol, you'll make some very good gains. When you take 100mgs of Anadrol, you'll make even more gains. However, it has been found that 100mgs/day is as effective for weight gain as 150mgs/day but produces fewer side effects and is less toxic (4). The jump from 50mgs to 100mgs constitutes an acceptable rise in benefit vs. cost, but this is not the case as dosages get over 100mgs. Now, let's see how 50mgs and 100mgs of Oxymetholone actually effect strength, when compared with each other:



*Relative (%) changes in strength are shown for the groups receiving placebo (filled bars), 50 mg/day oxymetholone (open bars), and 100 mg/day oxymetholone (gray bars). Nos. above bars represent relative change (%) from baseline to week 12 for the 1-repetition maximum tests of strength. Error bars represent ± 1 SE from the mean. * Significant difference from placebo, P < 0.05; significant difference from placebo by Wilcoxon test, P < 0.02. See text for additional statistical analyses.*

As you can see, in this study, doubling the dose of Anadrol nearly doubled the strength gains of the test subjects. Now, when we look at changes in body composition from Oxymetholone (chart below) we can see that although the guys taking the 100mgs (vs. the 50mgs group) had more fat lost and more lean body

mass gained, it wasn't as dramatic as the differences in strength gains between the two groups:

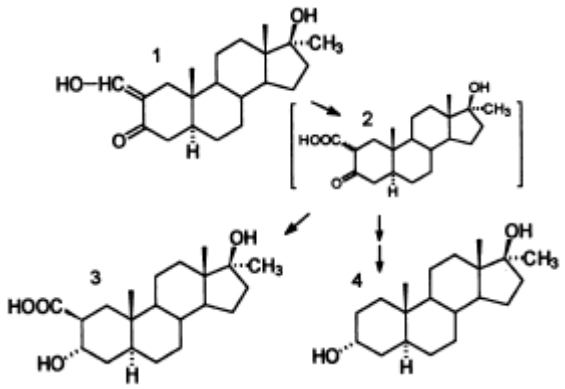


Changes in body composition are shown for the groups receiving placebo (filled bars), 50 mg of oxymetholone per day (open bars), and 100 mg per day (gray bars). Numbers above the bars represent the mean absolute changes and the error bars are ± 1 SE. For total lean body mass (LBM) and total fat, differences among the 3 groups were significantly (P < 0.0001, one-way ANOVA) different from placebo, P 0.001.

Although I am usually not inclined to posit speculations on why a particular drug does or doesn't do something, in this case I will. I'm guessing that the higher doses of Anadrol cause enough appetite suppression (at least anecdotally) to make eating rather difficult. It can also increase insulin resistance and glucose intolerance (5). This has the effect of making macronutrient absorption more inefficient, and could also be a factor in reducing gains when the dosage goes over 100mgs/day. Unfortunately, Anadrol also has a reasonably profound effect on your body's natural hormonal system, on par with most other oral steroids, but not as bad as most injectables, and it's certainly not as harsh on your lipid profile as many anabolics are (2). As an interesting side note, some of the medical literature on this compound suggests a dose of 1-5mgs per kg of bodyweight. I'll pause a second here for you to figure out how absurdly high of a dose that would translate to for the average bodybuilder!

This steroid is very available on the black market in the form of capsules, tablets (some are even 75mgs!), liquid, and even paper. Prices will vary, and be indicative of many different factors including the form in which you buy the compound (paper will usually be the most expensive, and liquid the least), and where you live. In any case, you shouldn't be paying more than $2.50-3.00 per 50mgs.

Here's how Oxymetholone is metabolized in your body:



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Charts from reference 2:
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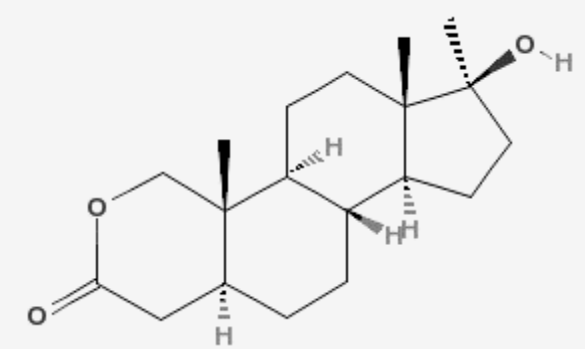
0193-1849/03

Anavar



(Oxandrolone)
[17b-hydroxy-17a-methyl-2-oxa-5a-androstane-3-one]
Formula: C19 H30 O3
Molecular Weight: 306.4442
Melting Point: 235 – 238 Celcius
Manufacturer: BTG, SPA, Originally Searle (1964)
Effective dose: (Men)20-100mgs/day (or .125mg/kg~bdywt); (Women) 2.5-20mgs.day
Active Life: 8-12 hours
Detection Time: 3 weeks
Anabolic/Androgenic Ratio (Range): 322-630:24

Anavar (oxandrolone) is not very toxic, not very androgenic, mildly anabolic, and pretty mild on the body's HPTA (Hypothalamic-Testicular-Pituitary-Axis). Those are its 4 major points, and I'd like to examine each one a bit further; as usual, gym-rumors and Internet conjecture have made this steroid the subject of many misconceptions.

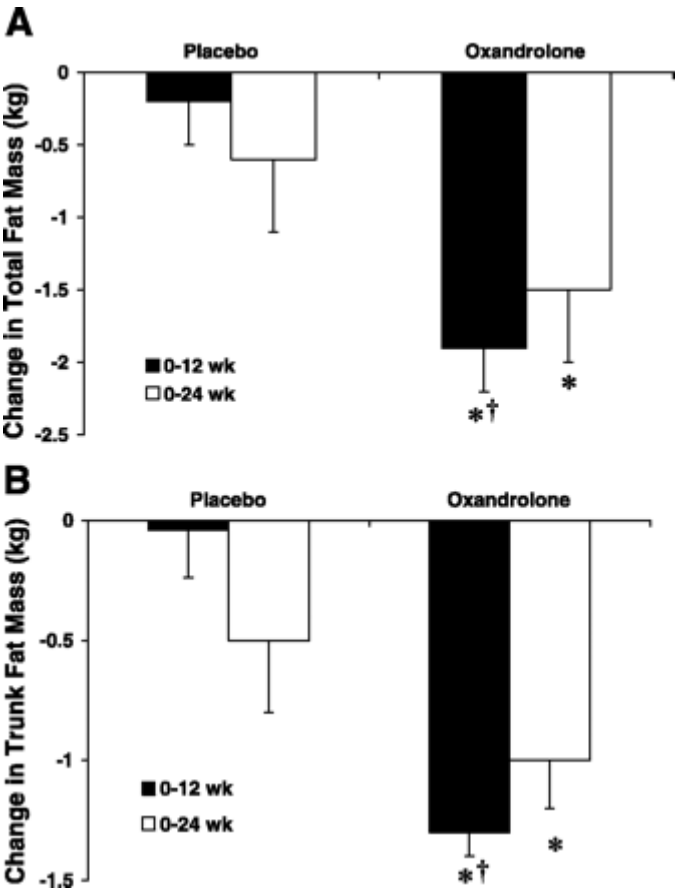
First of all, and this will come as no surprise to many people, Anavar is quite mild on your liver. It's probably the mildest oral steroid available today. Dosages of up to 80mgs/day are easily tolerated by most men, and most side effects often found with other steroids are not common with 'var (1). For this reason, Anavar is frequently the steroid of choice for many top-level female bodybuilders and other athletes.

It's a very mild steroid in every sense of the word. It binds reasonably well to the AR, but pretty high doses are still needed and I would never suggest doing less than 20mgs/day. In fact, 20-80mgs are needed to start halting AIDS related wasting (1) and recovering weight for burn victims (2), so that's the range I'd recommend for dasging this compound. Personally, I'd use 100mgs/day if I were ever going to try this stuff. Any less than this amount (20-100mgs) would be a waste. For women, however, I think 2.5-10mgs/day would suffice. Virilation is not a concern with this compound, as it is only very mildly androgenic (3). Water retention is also virtually nil with it.

Although Anavar is an oral steroid, and has been alpha-alkylated to survive oral ingestion and the first pass through the liver; it's still relatively mild in that respect too. The unique chemical configuration of oxandrolone both confers a resistance to liver metabolism as well as noticable anabolic activity. It would also appear that Anavar appears not to exhibit the serious hepatotoxic effects (jaundice, cholestatic

hepatitis, peliosis hepatis, hyperplasias and neoplasms) typically attributed to the C17alpha-alkylated AASs (17). Anavar has even been used successfully in some studies to heal cutaneous wounds (7), or to improve respiratory function (18). Both of these novel properties could make it a good choice for in-season use for boxers, mixed Martial Arts competitors, and other such athletes.

Now here's some interesting stuff for anyone interested primarily in the fat burning properties of this stuff: Anavar may be what we'd call a "fat-burning steroid." Abdominal and visceral fat were both reduced in one study when subjects in the low/normal natural testosterone range used it (4). In another study, appendicular, total, and trunk fat were all reduced with a relatively small dose of 20mgs/day (8) and no excercise. In addition, weight gained with 'var may be nearly permanent too. It might not be much, but you'll stand a good chance of keeping most of it. In one study, subjects maintained their weight (re)gains from Anavar for at least 6 months after cessation (2)! Concomitantly, in another study, twelve weeks after discontinuing oxandrolone, 83% of the reductions in total, trunk, and extremity fat were also sustained (8)! If you're regaining weight, Anavar will give you nearly permanent gains, and if you are trying to lose fat (and you keep your diet in check), the fat lost with Anavar basically looks to be nearly permanent. Check this chart out:



*Absolute change in total fat mass (A) and trunk fat (B) by dual-energy X-ray absorptiometry from baseline to study week 12 (solid bars) and from baseline to study week 24 (open bars) in the placebo (n = 12) and the oxandrolone (n = 20) study groups. Values are means ± SE. *Significant decrease from baseline, P <*

0.001. Significant difference between study groups for change in fat mass from 0 to 12 wk, P < 0.001. (15)(8)

Keep in mind this is all without any post cycle therapy, and without any change in diet or training! And although many of the studies done on oxandrolone use elderly men or young boys as the test subjects, some evidence suggests that many of the effects of oxandrolone are not age dependant (11). If you are following the typical "time on = time off" protocol, this means you can lose a bunch of fat during your time on, then keep most (if not all) of it off until your next cycle. That makes it a great drug for athletes who are drug tested and need to be clean for their season, yet need to keep off the fat/weight they lost on their cycle off; I'm thinking about wrestlers and other weight-class athletes. Anavar is also the clear choice for a "spring-cutting" cycle, to look great at the beach—you can use it up until the summer starts, and then keep the fat off during the entire beach season!

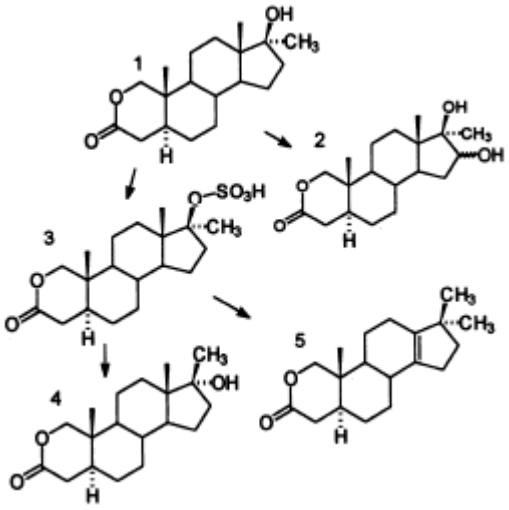
Anavar is great for strength and cutting purposes, but not for bulking or a lot of weight gain. In other words, what I'm saying is that everything you gain will be solid. Personally I am leaning towards a theory that purports that the more solid your gains are, the more you'll keep (percentage-wise). It makes sense, when you think about it; people make a lot of weight gains on the highly water-retentive steroids (Dbol, A50, long estered testosteones, etc…), but lose the greatest percentage of their gains afterwards. The same seems to be opposite for the steroids which cause less (or no) water retention (Anavar, Primo, Winstrol, etc).

So why else may you keep such a high proportion of what you gained on 'var? Well, I think it may be due to it's relatively light impact on the HPTA, which brings me to my final point: Anavar will not totally shut down your HPTA, especially at lower doses (unlike testosterone, which will eventually do this even at a 100mg dose, or Deca which will do it with a single 100mg dose). This could be due, at least partly, to the fact that Anavar doesn't aromatize (convert to estrogen). Serum testosterone, SHBG (Sex Hormone Binding Globulin), and LH (Leutinizing Hormone) will be slightly suppressed with low doses of Anavar, but less than with other compounds. FSH (Follicle Stimulating Hormone), IGF1 (Insulin Like Growth Factor 1) and GH (Growth Hormone) will not be suppressed with a low dose of Anavar and LH will even experience a "rebound" effect when you stop using it (3). If your endocrine system and HPTA are funtioning normally, you should be able to use Anavar with minimal insult to it, and can even keep most of your values within the normal range (5).

Thus, Anavar may even be ideal for use in bridges between cycles, (at very low doses under 10mgs perhaps), or as previously mentioned, for cutting/strength cycles at 50-100mgs.

Its relatively high cost is its only major drawback, and tablets can typically sell in Mexico or on the black market for up to a dollar (US) per 10mgs. Many black market dealers or underground labs, however, offer capsules, liquid form or, in some cases, even their own brand of tabs for substantially less money than the legit pharmaceutical versions, or even veterinary versions found overseas.

Here's how Oxandrolone is Metabolized in your body:



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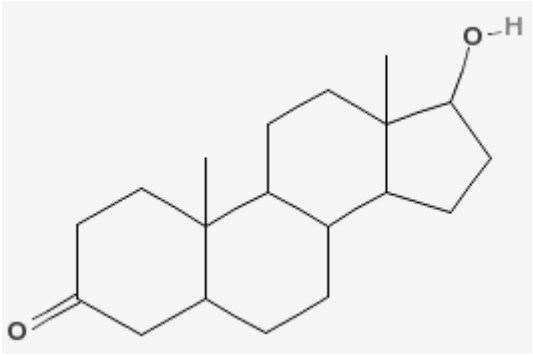
Andractim



(Topical Dihydrotestosterone)

Although DHT is much more potent than testosterone in terms of both anabolic and androgenic effects, it has several possibly nasty side effects, as well as several problems and a couple of possible advantages inherent with its form of administration (topical). First, though, a brief discussion of DHT is probably in order, so bear with me.

For starters, pure DHT is a very poor choice for anabolism of any sort. I know we can all look at its anabolic/androgenic rating and say that it's a very good anabolic steroid, but in actuality, what happens to DHT in the body is far different than what we'd want, but first I'll give you the good news about. DHT is a non-aromatizing androgen, which as you know means it doesn't convert to estrogen at all. This is important because estrogen is suppressive of LH production (1), which is of course going to be an aggravating factor in lowering your endogenous testosterone production. In addition to not converting to that nasty test-suppressive-estrogen, DHT will not inhibit LH production or testosterone production (1)(2)(3). DHT may even have a suppressive effect on estrogen, in some cases. This would certainly account for its ability to actually have a positive effect (again, in some cases) on LH and testosterone.

This is all very good news, but unfortunately, there's a catch. Your body reduces DHT to inactive metabolites by way of the 3-alpha-hydroxysteroid dehydrogenase enzyme before a lot of it can reach the androgen receptors in skeletal tissue. This means that while it reaches your scalp and prostate relatively intact, it doesn't make it to your muscles that way. This is why we see so many different alterations of DHT available on the market, from Anadrol 50 to Anavar, with so many different uses. Andractim has the most unique use, though, I think.

Andractim has been used with some success to reduce gyno in males. It's possible that a lowering of circulating DHT-levels can cause Gyno (5)(6), and certainly androgen therapy with DHT derivatives has been found useful for treatment of gyno, so it's very logical that a topical DHT would be a good bet to address anabolic/androgenic steroid induced gyno. Here's the creepy part: *You'll need to rub it on your nipples several times per day.*

Obviously this is problematic for someone with a job, who can't be going to the restroom and rubbing his nipples a couple of times every day. Unless rubbing his nipples is part of his job; anyway….

Andractim is a topical gel, which comes in a tube, containing 80x 25mg doses of DHT. The absorbtion rate is going to be similar to testosterone gel, or roughly 10%, so you're applying 2.5mgs of pure DHT to your nips every time you use this stuff. I'd say you want to be doing this 2x per day with an equal amount per nipple, using 25-5mgs of gel each time.

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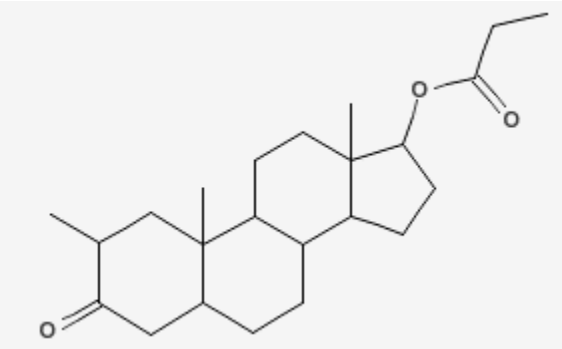
Masteron



(Drostanolone shown with Propionate ester)
(Drostanolone Propionate)
[17beta-Hydroxy-2alpha-methyl-5alpha-androstan-3-one propionate]
Formula: C23 H36 O3
Molecular Weight: 360.5356
Melting Point:N/A
Manufacturer:Syntex, Various Underground Labs
*Effective Dose (men):350mgs/week (*100mgs Every other day) to 500mgs/week*
Effective Dose (women): 25-50mgs Every other Day to Every Third Day
Active Life:2-3 days
Detection time: 3 weeks
Anabolic/Androgenic Ratio:62:25

Masteron is, to be honest, my favorite Anabolic/Androgenic Steroid (AAS). For many years, this compound was unavailable to the average athlete; it was frequently counterfeited, often very expensive, and almost never available on the black market. The most common form of this product, as manufactured by major pharmaceutical houses, is 50mg/ml ampules with either 1-2mls per amp (or vial). Needless to say, these products used to be the only game in town, and since this drug was a particularly sought-after compound for bodybuilding contest preparation, its price made it prohibitive for all but the highest-level bodybuilders.

Masteron is a derivative of DHT (as you can tell from it's chemical name: 2a-methyl-dihydro-testosterone propionate), but what they fail to tell you is less obvioius is that DHT and its derivatives are commonly used in treatment of certain forms of breast cancer (see the etymology here: MASTectomy, gynocoMASTia, MASTeron…get it?). Masteron is not clinically used for weight gain (as is common with most steroids), so this makes it a very unique steroid from that perspective. Unfortunately, for that reason much of the information on Masteron available in medical journals doesn't focus on weight or strength gain or even fat loss. Most information on Masteron focuses on it's use in treating certain forms of breast cancer, and it does this reasonably well (4)(5). To give you an idea, Masteron + Tamoxifen actually fared better than chemotherapy for immediate objective responses from patients (8). So? What does this tell us? Well, this makes it a very exciting drug for a lot of reasons. Clearly it won't aromatize at all, nor will it have progesteronic sides—remember, Nolvadex (and most ancillaries) are used to reduce estrogen for breast cancer patients, so a drug used to treat breast cancer obviously wouldn't convert to estrogen. In addition, Masteron may in fact interact with the aromatase enzymes to inhibit aromatization of other steroids into estrogen, and may additionally interact

with estrogen (as a "blocker" of sorts) at the receptor site (4)(5). This is how it helps to combat breast cancer, obviously, but this could also be part of the reason that Masteron is considered a "cutting" or "Pre-contest" drug. Masteron may actually be very useful for combating estrogenic/progesteronic side effects. Yes, you read that right: if you include Masteron in your cycle, you may not need other "ancillary" drugs like Arimidex or Letrozole. Therefore, much like Proviron, Masteron could be used as an anti-side-effect-drug (remember, most ancillary drugs we use to combat estrogenic sides, like Nolvadex, Letroxole, and Arimidex were originally developed to combat breast cancer). Along a similar line, being a DHT (DiHydroTestosterone) derivative, it's got a very nice ability to add muscle hardness to an already lean physique. Masteron has a deceivingly low anabolic/androgenic ratio, but since DHT is 5x as androgenic as testosterone and has a 3-4x higher affinity to receptor sites, Masteron provides a lot of "bang for the Buck" when examined on a Mg for Mg basis.

In my experience, as well as that of many others, Masteron is a stronger androgen than it appears on paper, and this could cause increased aggression. As we know, higher androgens also produce that "hard" look prized by competitive BB'ers, and as we all know, androgens also promote lypolysis (fat loss). The effects of Masteron, in that regard are consistent with the documented effects of (somewhat heavier) androgens to decrease lipoprotein lipase and upregulate-adrenergic receptors on adipocytes, which would inhibit the accumulation of lipid (fat) and enhance the efflux of lipid from these cells in response to catecholamines (1)(2)(3). So, like I said previously, don't let Masteron's deceptively low anabolic:androgenic ratio fool you. It helps eliminate fat as well (if not better) than much more highly scored androgens, in part due to its being a derivative of DHT. This reduction in fat and rise in aggression (making workouts more effective) could be beneficial for people competing in a sport or who are on a reduced calorie diet. Sounds pretty good, right?

Unfortunately, being a DHT derivative means that it can have certain undesirable sides as well (acne, hairloss, prostate enlargement, etc.; you may want to consider using Finasteride with this drug). Water retention (and increased danger of high blood pressure) with this compound is virtually nil, and liver toxicity is not much of an issue either. Really, you can take heaps of this stuff; the maximum theraputic dose is pretty high: 167mgs/kg-bdywt/day. So that's 167mgs per day, every day of the week for a 220lb person—and that's not considered excessive by the FDA, which hasn't been very traditionally liberal on dosing protocols. So clearly, up to that dose is very safe for almost anyone. DHT has a bad reputation for causing prostate hypertrophy, acne, and hairloss, but most people I've talked to find that reputation to be mostly undeserved at least in the case of Masteron.

Remember that year that the Chinese National Swimming Team (women's) kicked everyone's ass? Or the year that the German National Swimming Team (again, I'm talking about women) took all those Gold medals? They were all using a form of DHT or a derivative, possibly Masteron. The German Women had very deep voices, which leads me to believe that Masteron's virilizing effects on women could be very bad (there was a famous/funny interview during which the interviewer implied that they all had deep voices, and one of them replied "Ve came here to svim… not to sing."). Anyway, Masteron is a great drug for any type of athlete, but possibly not for women (at least not at high doses, perhaps 50mgs/E3D is appropriate). Sorry girls: you can have a go with this drug, but keep the doses low.

Stacking Masteron? Well, I'd say that your best bet is with test, of course, but

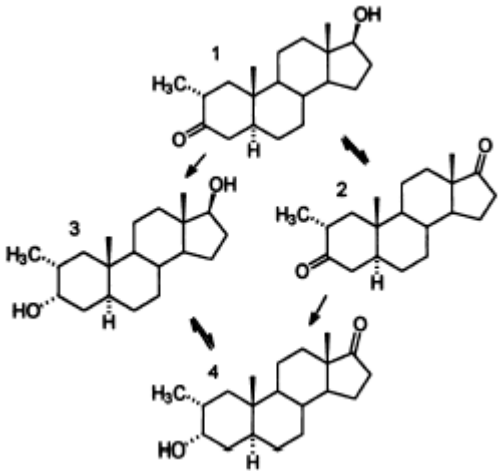
really, due to Masteron's reasonable binding to the androgen receptors and its high androgenic properties, almost any cutting drug (Tren, Anavar, etc.) could be efficientlty included with it in a cycle. I have a feeling that due to stanozolol's (Winstrol) non-AR mediated effects, and it's ability to reduce SHBG, a stack including both of these drugs would be very synergistic. However, don't forget the testosterone, as Masteron will reduce your own natural testosterone levels (9), and since you are going to have to inject Masteron every other day at least (100mgs EOD is the lowest dose of this stuff I'd consider using), you might as well stack it with testosterone propionate, and possibly injectable Winstrol (and/or maybe Tren Acetate if you're inclined to use a lot of compounds in the same cycle, and I know I am). Eq is another popular choice to stack with Masteron.

I'd say that optimum effects of this stuff are found with 4-500mgs/week (based on conversations I've had with people who have used Masteron, as well as my own results). I happen to have a friend who has gone up to 600mgs/week with Masteron and didn't feel that it provided significantly better results than 400-500mgs per week. I think, for maximum cost effectiveness, 400mgs per week is ideal. It's also important to remember to spread those shots out on an every other day basis, as the Masteron I'm talking about here is the propionate version, and as such, requires more frequent dosing. Of course I know there is a version of Masteron with an enanthenate ester dosed at 200mg/ml being produced by a very good underground lab (I personally used the "alpha" version, as a sort of human guinea pig almost a year ago), but that's not the version of Masteron I'm talking about in this profile. In addition, there is another form of Masteron out there: drostanolone (base)—yeah, that's right, Masteron without an ester. It's called Dromostan and it's made by the Xelox company. I've never tried this version, and don't know anyone who has, but it's my suspicion that it would be a very potent product, but would need to be injected every day.

If you are looking for this drug from a major pharmaceutical company, I'd caution you to reconsider that route, and go with an underground lab instead. There are many very reputable underground labs operating out there, with no known counterfits. On the other hand, genuine Masteron is one of the most difficult drugs to find on the black market if you're looking for a "Human-grade" product made by a major pharmaceutical house. In addition, UGLabs commonly offer this product for a very reasonable $50-75 for a 10ml bottle dosed at 100mg/ml. Trying to find the Syntex (or comparable Human-Grade) version of this product will bring a mg for mg cost of 2-5x that amount.

To recap: Masteron is derived from DHT; could be used as an anti-estrogenic drug; doesn't convert to estrogen and actually works to reduce it in your body; can possibly cause hairloss and other DHT-related sides; is great for all types of athletes and BB'ers, but not women in high doses; stacks well with almost anything; is very androgenic; is awesome for losing fat and getting "hard"; and should be used at around 400-500mgs/week. It's no surprise that it's the favorite steroid of many people, myself included.

Here’s how drostanolone is metabolized by your body:



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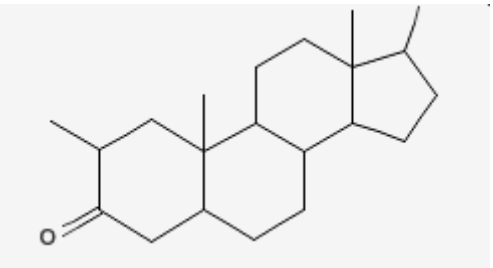
Masteron Enanthate



(*Shown Without Enanthate Ester)
(Drostanolone Enanthate)
[17beta-Hydroxy-2alpha-methyl-5alpha-androstan-3-one Enanthate]

Molecular Weight: 360.5356

Formula: C23H36O2

Melting Point:N/A

Manufacturer: Dpharm, others

Effective Dose (men):400-600mgs/week

Effective Dose (women): 100mgs/week

Active Life: 8 days

Detection time: up to 3 months

Anabolic/Androgenic Ratio: 62:25

This is a compound very near and dear to my heart, as I was actually one of the first people in the world to ever use it! I was contacted by the owner of Dpharm after writing my original article on Masteron, and asked a bunch of questions concerning making this drug with the enanthate ester. It seems that another lab had tried to produce this drug and people were getting sick from it. The attempt to get it right is really a very cool example of an underground lab pushing the frontier of developing anabolic steroids beyond those of the major pharmaceutical houses.

So of course, I told him to send me a bunch of the prototype and I'd shoot it, and we'd see if I got ill. It wasn't much of a plan, in retrospect, but it's what we did. Anyway, I get this stuff in my mailbox a few days later—it's virtually clear, and in an unLabeled vial. Well, I shot ½ a cc into each biceps, to see if it made me sore, then I tried a cc in each delt. Everything seemed ok. It was supposed to be 220mgs/ml, but the Lab reports said it was only around 90% pure.

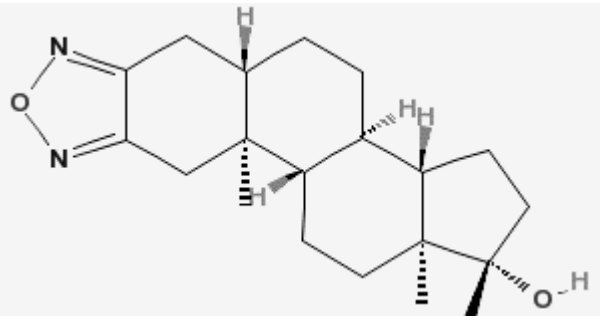
So as you may have guessed, I'm still alive. It didn't get me sick or anything, leading me and the owner of the Lab to speculate that the other Lab had some unrelated purity issues, and the Dpharm version didn't share them.

Anyway, I gave him my feedback on the product, and another fine anabolic steroid entered the black market!

It’s dosed at 200mgs/ml, and comes in a 10ml multi use vial, with (of course) the enanthate ester instead of Masteron’s traditional propionate ester. Though this particular compound acts just like the one with the propionate ester, in almost all respects. Let’s see how it differs.

Now,we know a couple of things from the Minto et. al studies (see the profile for Deca-Durabolin); the first is that higher mg/ml steroids give higher blood plasma levels of a given steroid, and we also know that shorter esters do this as well. So why would anyone make a nice cutting steroid like Masteron (drostanolone propionate) into a longer estered version? In this case, the higher concentration (200mgs/ml) and longer ester (enanthate) allow us to do several interesting things with this compound. One I’ve heard of is people running a gram per week of it, and that would only require two 2.5ml shots! Another thing I’ve seen is people using this with a long estered Tren and Test (along with an ancillary compound like Letro) and having a great cutting cycle that only requires a 1-2 day a week injection schedule.

Miotolan



(Furazabol)
[17-alpha-methyl-5-alpha-androsta-2,3-furazan,17b-ol]
Molecular Weight: 330.4692
Molecular Formula: C20H30N2O2
Melting Point: N/A
Manufacturer:Various Underground Labs
Release Date: 1989
Effective Dose: 1-2mg/kg of Bodyweight
Active Life:+/- 4 hours
Detection Time: 3 weeks
Anabolic/Androgenic Ratio: 270-330:73-94

Furazabol was originally manufactured in Japan in tabs of 1 mg strength. Dan Duchaine was very unimpressed with this drug, noting that he rarely saw any very large Japanese bodybuilders. I'm inclined to agree, but let's take a look at it, since it has become quite popular ever since its reappearance on many underground labs' price lists.

Finding out information on this stuff was agonizing, since most of it is in Japanese, and no athletes really use it. Anyway, with respect to its half-life and active life (and detection time), I'm pretty much estimating from what I've seen in studies. One study said that the half-lives of unchanged Furazabol in two human subjects were 1.87 and 1.29 h respectively, and the recovered amount in 48 h was averaged to 24% (33% for one, 15% for the other, respectively) (4). Unfortunately for tested athletes, Furazabol is metabolized in the body into 16-hydroxyfurazabol and then excreted in urine. The presence of this compound in urine can be monitored with a very simple, standard procedure (4) for urine screening, and this is incorporated into the general dope testing protocol for anabolic steroids employed by the IOC and other such no-fun-agencies.

The really interesting thing about this stuff (to me, anyway) is that it's a DHT-derived steroid, with a decent anabolic rating that lowers cholesterol! It is often compared with Winstrol, for many good reasons: strucrurally, it is a DHT molecule with a 17-alpha-methyl group (making it both liver-toxic and orally available, as you know). Additionally, it has no 3-keto group, which is needed for a strong androgenic binding ability, so this lack probably impairs its overall androgenic rating. As with Winstrol, it's not estrogenic in any way, doesn't aromatize, and you'll only have to worry about DHT-sides from it (acne, hairloss, etc.), and possible liver problems. However, while Winny really KILLS your cholesterol values, furazabol actually improves them! In one study, the administration of furazabol at the daily dose of

0.04, 0.2 or 1 mg/subject (in this case, rats) for 3 months, there were substantial increases noted in the plasminogen (a substance found in body fluids and blood plasma that, when activated, becomes plasmin—an enzyme found in plasma that catalyzes the breakdown of blood-clotting agents) activator activity in blood. Furthermore, in the rats' lung tissue there was an expected decrease in plasma fibrinogen level. This will, of course, serve to increase your blood-clotting time considerably. There was also a decrease in plasma cholesterol levels with administration of Furazabol (8), which certainly means it's a reasonably safe oral. One month after cessation of the furazabol treatment, these altered parameters tended to return to normal (8), as is very common with similar side effects from most anabolic steroids (notably, this is very similar to Winny, once again).

This steroid is quite confusing to me, as it was found to be a good treatment for hyperlipemia (it lowers cholesterol), and this was without affecting proteinuria (the prevention of excretion of amino acids) (12). Generally, steroids affect proteinuria positively, as you'd expect (and want) them to. This stuff is DHT-derived, and it also appears to have a relatively low androgen binding ability, which makes the lack of effect it had on proteinuria when compared with it's anabolic rating even more confusing. It should be noted that doses used in this study were oddly high for a product which comes in 1mg presentation: 1.1 mg/kg/day. That means a 200 lb bodybuilder would be using about 100 mg/day. I think a reasonable anabolic effect would be had with furazabol roughly 50-100mgs/day. This may also be a decent steroid for use in a cycle if one were worried about cholesterol. You'd get an anabolic effect (remember, its anabolic rating is roughly the same as Winstrol's); thus you could build muscle and lower cholesterol with just one pill. Well, actually about a hundred pills, since it comes in 1mg form. Why make a pill in 1mg form if you need to take 100/day? I just don't understand.

Furazabol is not estrogenic in any way. It's structure and its lack of estrogenic action make it an appropriate precontest drug, as I can't imagine anything gained with it being less than high-quality muscle. There is only a slim chance of androgenic risk, so this may be a nice drug for women as well as men, although certainly not worth consideration for the latter as a stand-alone anabolic. The most unfortunate part about this drug is it's current availability (low) and cost (high).

As a quick recap, let's just keep in mind that this stuff is essentially Winstrol that helps your cholesterol instead of harming it. I looked at the steran nucleus of both Winstrol and Miotolan (a likely candidate because, as I said, it also lowers cholesterol). They are both DHT-derived, which I knew off-hand, and this made me more curious about subbing Miotolan for the Winny. Anyway, they are DHT-Derived with a 17-alpha-methyl group (making them methylated, or 17aa, for oral availability). Neither have a 3-keto group; both having instead 2 nitrogen atoms and 2 double bonds—a very weird looking structure—which also makes them both very weak binders to the AR, perfect for stacking with the strong-binding-Tren. The difference (that I could see) between the two is that in lieu of the 2,3-pyrazol group found in the stanozolol structure, furazabol has a 2,3-furazan group (hence the name). Think of it as Winny, when you can't use Winny.

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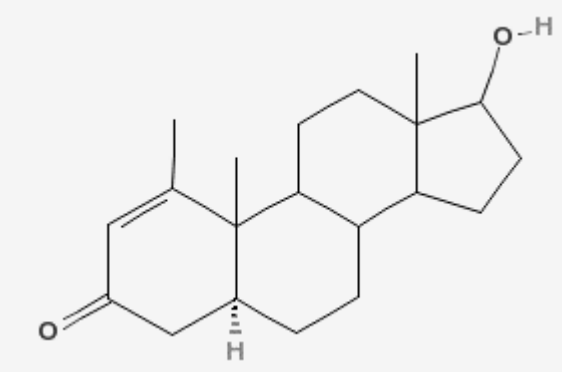
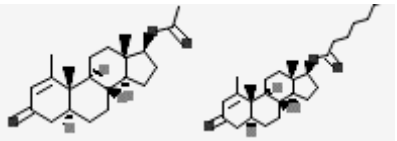
Primobolan





(Methenolone) (+ acetate) (+Enanthate)

(Injectable version is Methenolone + Enanthate Ester)
(Oral Version is + Acetate Ester)
(Injectable Version is + Enanthate Ester)
[17beta-Hydroxy-1-methyl-5alpha-androst-1-en-3-one]
Formula: C20H30O2
Molecular weight of base: 302.4558
Molecular weight of Acetate ester: 60.0524
Molecular weight of Enanthate ester: 130.1864
Melting Point: N/A
Manufacturer: Schering
Effective dose(oral): (Men)50-100mgs/day; (Women) 10-25mgs/day
Effective dose (injectable): (Men) 350-600mgs/week; (Women) 100mgs/week
Active Life: 10-14 days (injectable); 4-6hrs (oral)
Detection Time: 4-5 weeks
Anabolic/Androgenic Ratio (Range): 88:44-57

Primobolan is one of those anabolic steroids with a cult following not unlike the old original version of Masteron. Actually, as you can easily see from it's anabolic/ androgenic ratio, it's a pretty weak steroid—but actually stronger(!) than Masteron in both regards. I don't know anyone who has run both compounds at the same dose. We are probably justified in speculating that you'd probably get similar results from either of them, when you consider the fact that you are getting quite a bit less actual drug and more ester when you choose injectable Primobolan (which has the very long enanthate ester attached to it) over Masteron (which has the very short propionate ester attached to it).

I happen to be one of the few people who have used drostanolone enanthate (Masteron with the enanthate ester attached) as well as methenolone enanthate (injectable Primobolan). I can tell you that the results from these two compounds, when ester and mg potency are the same, are in fact very similar.

Let's flesh out some of the various general effects of Primobolan, before we get into the differences between the oral and injectable versions. One study performed on sheep involved administering 100mgs of Methenolone, and electronically stimulating their lats (electronic stimulation was used because they kept falling off the chin-up bars). Anyway, when compared with the control group, the group receiving the drug gained significantly more muscle mass as well as strength (1)(2). It also has a

relatively high affinity for binding to the AR, actually binding better than testosterone (3). This ability to strongly bind to the AR may be why Primobolan is such a good "fat burner." Strong AR binding has been positively correlated with lypolysis (fat-burning) (8).

In addition, as this steroid can actually aid in reducing breast tumors, no ancillary products need be considered for use with Primobolan, and like Masteron, it may actually be a useful ancillary agent in it's own right. Also, just like Masteron, Primobolan has no propensity to aromatize (convert to estrogen).

Although nobody would ever suggest to use Primobolan as a bulking agent, it's been studied as an agent to halt wasting and possibly reverse many of the adverse effects of anemia. It is a shocking failure in both areas, according to some of the case studies I've read (5)(6), and this should come to no surprise to anyone. Anadrol reigns supreme in this area, and nobody in the athletic community would ever compare those two drugs. However, Michael Mooney and many other respected doctors who work with AIDS patients have found sufficient evidence to claim that Primobolan is an immune enhancer and as such is very useful for AIDS patients. AIDS patients aren't really in need of bulking drugs, so an immune enhancer like Primo which will add small, quality gains in muscle is perfect for them. And since we aren't even going to vaguely consider the use of Primobolan as a bulking agent, clearly this leaves us with considering it primarily for use in gaining and maintaining lean tissue. It's a great choice for this purpose, and many competitors have used it very successfully to retain muscle while on a reduced-calorie diet. The reason Primo is so useful for this purpose is that one of it's primary functions is to help your body retain nitrogen (7) at a greatly enhanced rate. The greater your nitrogen retention, the more muscle you will build. In the case of using primo as a pre-contest drug, this nitrogen retention will help you retain muscle and ensure that your dieting preferentially favors fat loss over muscle loss.

Primobolan is a very unique steroid, as it is one of the few that comes in both an oral as well as an injectable version. I suppose Winstrol does also, but Primobolan actually has a different ester on the oral (acetate) and injectable (enanthate) versions. The oral version is one of the more interesting oral compounds I've looked into. For starters, it's one of the few compounds available to athletes and bodybuilders taht is both oral as well as non-17-alpha-alkylation. This alteration is (as I'm sure you remember from other stuff I've written) what generally makes oral steroids survive their first pass through your liver, but also makes them hepatoxic (liver–toxic). Well, oral Primo doesn't have this feature, so it is very mild on your liver (actually it basically isn't liver toxic at all), but also is largely destroyed by it, since 17 beta estrification and 1 alkylation is the method used to make this stuff orally available. You'll need to take a lot of this stuff for it to be effective: 100mgs/day of the oral version is a safe estimate for reasonable gains. Women can get away with less, perhaps 25mgs/day. Even though the acetate ester has a 2-3 day active life, your liver will do some damage to oral primo, so every day dosing will still be necessary.

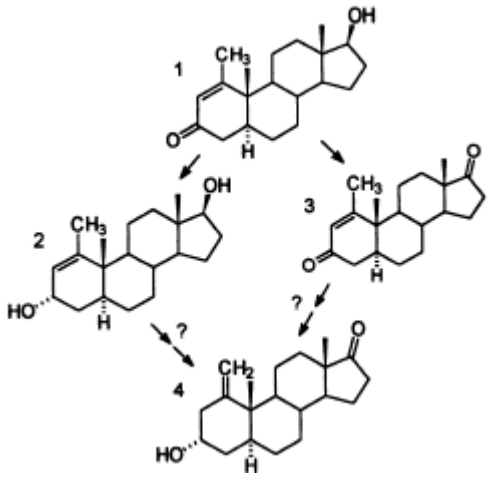
When men were given a 30-45mg dose of the oral version of Primo, they experienced a 15-65% decrease in gonadotropin levels (9). Remember, I said 100mgs is a good dose for gains—well, you'll also reduce your gonadotropin levels considerably. I have personally never understood why people recommend either oral or injectable Primobolan as a possible bridging compound for this reason. Maybe at

a too-low-to-do-anything dose of 10mgs it could be used as a bridge. And forget about using injectable Primo to bridge.
Hey, speaking about injectable Primo…

I've used this stuff at 200mgs/week and wasn't very impressed with it. Generally, I think injectable primo needs to be used at a dose of at least 350mgs/week (100mgs/ every other day), and preferably at a dose of 400-600mgs/week. I happen to like running it with testosterone propionate, but for convenience I would imagine most people would run it with testosterone enanthate, to keep dosing times the same (shooting it twice per week, in most cases).

The unfortunate truth about injectable Primo is that it's a very expensive chemical to obtain, and that price is reflected in the cost to the average consumer. Ten dollars per 1ml/100mg ampule is not unheard of, and I've seen it go for more. This is, of course, absurd. As if that's not enough, this is also one of the most commonly counterfitted steroids on the black market. I recommend buying Primobolan (either the oral or injectable) from a respected underground lab instead of trying to play a game of "spot the fake steroid" in Mexico or Europe. The underground versions should cost between $5-7 for 100mgs of methenolone and I wouldn't really consider paying more for it.

Here's how your body metabolizes methenolone:



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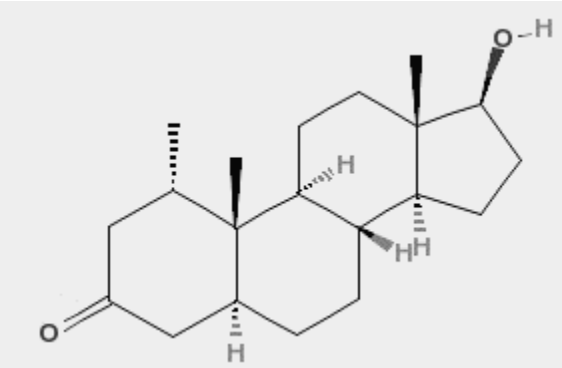
Proviron



(Mesterolone)
[1 alpha-methyl-17 beta-hydroxy-5 alpha-androstan-3-one]
Molecular Formula: C20H32O2
Molecular Weight: 304.4716
Melting Point: N/A
Manufacturer: Schering
Release Date: 1960
Effective Dose: 25-200mgs/day
Active Life: up to 12 hours
Detection Time: 5-6weeks
Androgenic: Anabolic Ratio:30-40/100-150

Proviron (mesterolone) is basically an orally active DHT (dihydrotestosterone) preparation. For comparision, we can think of some other orally prepared DHT compounds like Winstrol, Anavar, etc. Those both act very similarly in mechanism to Proviron, but a more accurate way to think of this compound is as something like "Oral Masteron." As I'm sure you noticed, their anabolic/androgenic ratio is very similar. Remember, DHT is 3 to 4 times as androgenic as testosterone and is, of course, incapable of forming estrogen. Also, Proviron is quite unique in that a simple look at its 4-ring structure will show us that it is not going to be too liver toxic, since it is not c17-Alpha-Alkylated, as many orals are. This modification (lacking in Proviron) makes drugs more liver toxic. Proviron has a 1-metyhl group added, instead--looks pretty great on paper, right? Well, as usual, things tend to look better on paper than they do in the body. Your body has a negative feedback loop which prevents it from having too much DHT floating around (if you've been paying attention up to now, you already know this). An excess of DHT will eventually be changed into another (largely not anabolic) compound.

So let's go back to the comparison with being some sort of "Oral Masteron." Basically Proviron is 5-alpha reduced and not capable of forming estrogen. More importantly, however, it has a very high affinity for binding to the aromatase enzyme (the enzyme responsible for converting all that good testosterone in your body into all that nasty estrogen). That means if you choose to take Proviron with testosterone (and I know you wouldn't even be doing a cycle without including some form of testosterone) and/or any aromatizable steroid, it should actually serve to prevent estrogen build up by the aforementioned binding to the aromatase enzyme, which prevents aromatase from doing its dirty work and making a bunch of estrogen out of the other steroids you are taking. It should also be noted that Proviron also binds very well to SHBG (sex hormone binding globulin, a hormone responsible for

reducing the amount of circulating free testosterone in your body) (1). As a matter of fact, in the last study I read, it bound to SHBG better than any other drug studied. Also, I'd like to note that Proviron bound to the anabolic receptor better than any oral anabolic (except for the insanely toxic methyltrienolone), better than testosterone, but not as well as Nandrolone (1). Unfortunately, as we know, DHT also has a high affinity for binding to receptors in the scalp and prostate, causing some possible nasty side effects, like male pattern baldness and prostate enlargement. It's important to remember that DHT and DHT derived compounds are used quite successfully to treat gynocomastia, and in this area, Proviron is no different.

Let's delve into some of the positive points of this drug before we go any farther. androgen receptors are found in fat cells as well as muscle cells (5), and while they act on the AR in muscle cells to promote growth, they also act directly on the AR in fat cells to affect fat burning (9)(3). The stronger the androgen binds to the AR, the higher the lipolytic (fat burning) effect on adipose (fat) tissue (6)(2). As if that's not enough good news, some steroids (notably, testosterone) even increase the numbers of ARs in muscle and fat (9)(7). Thus, if you are taking a simple stack of proviron and testosterone, you'll have more of the Test you shoot as free testosterone floating around building muscle (compliments of the Proviron) and more androgen receptors to be bound to (compliments of your testosterone) by your Proviron, thus causing more fat loss. Testosterone and Proviron is a very nice synergistic stack, pretty nearly an "ideal" stack of an oral and injectable, because both drugs will actually act to enhance each other.

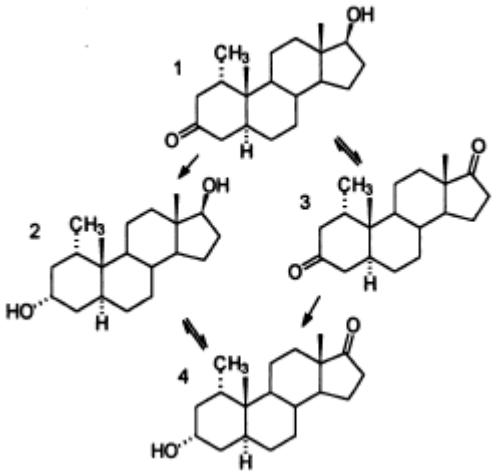
So what we have here is a steroid that can basically make other steroids more effective by preventing their conversion into estrogen, as well as increasing the amount of circulating free testosterone in your body. This of course all provides a more hardened and quality look to muscles. Proviron is very much a "synergistic" drug in this respect, and its inclusion in any cycle would definitely make all of the other steroids perform better, and provide better gains. This is all compounded by the fact that Proviron is a very lipolytic (fat-burning) drug.

Now, as if all of this weren't enough, let's talk about how Proviron affects your HPTA (hypothalamic-pituitary-testicular-axis), the thing that regulates the male hormonal system. When a reasonable dose of this stuff is given (100-150mgs/day), it had no depressing effect on low or normal serum FSH and LH levels (6). Follicle Stimulating Hormone (FSH) and Leutenizing Hormone (LH) are two hormones that send a signal to your testes to produce testosterone. Thus, by not suppressing those hormones, your normal testosterone levels will remain intact. This points to a novel use for this compound during post-cycyle-therapy: a non-suppressive "bridge" between cycles. In fact, in yet another study, administration of Proviron (basically the same dose as in the last study) produced no changes in steroids, thyroid hormones, gonadotropins or PRL (prolactin levels—you want those to remain low) (8).

Unfortunately, this stuff is not too hot on it's own. It's a good drug for inclusion in a cycle containing testosterone and other armoatizable steroids, and it's a good drug for a possible "bridge" between cycles. Alone, however, as an androgenic or anabolic agent its effects have been very weak in both studies (9), as well as in the experience of everyone I spoke to about it. This may be due to the addition of the 1-methyl-group to DHT, which makes this stuff orally active. Whatever the case, as a stand-alone anabolic or androgenic compound, it's not too impressive.

This drug is a rare find on the black market, and many underground labs do not produce it, but if you can find it, I'd say that you shouldn't be paying more than .50 cents for each 50mg tab.

Here's how your body metabolizes Mesterolone:



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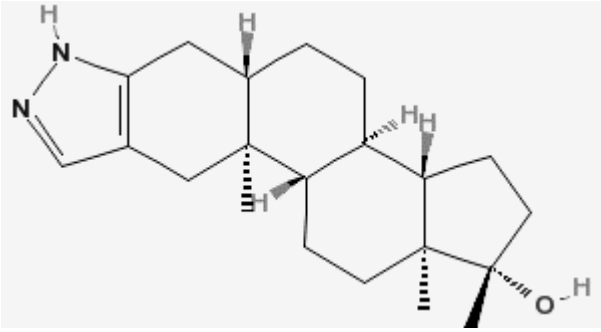
Winstrol



Stanozolol
[17beta-Hydroxy-17-methyl-5alpha-androstano[3,2-c]pyrazole]
Molecular Formula: C22H36N2O
Molecular Weight: 344.5392
Melting Point:N/A
Manufacturer: (Originally) Sterling
Release Date:1962
Effective Dose(men): 50-100mgs/day
Effective Dose (women): 2.5-10mgs/day
Active Life:8hours
Detection Time:3 weeks (oral) to 9 weeks (injectable)
Anabolic/Androgenic Ratio:320:30

Stanozolol is a very commonly used anabolic steroid for cutting cycles. While many people will attempt to use Dianabol or even Anadrol for cutting cycles, I've really never heard of anyone using stanozolol for anything except a cutting cycle. It's a bit of a one-trick-pony in this respect. Let me repeat that: stanozolol is a cutting drug. Not many people will argue for its use in a bulking cycle. It's certainly not a very effective compound for treating anemia (1) and thus, one could rightly assume that it's role in bulking cycles is very limited.

One novel use for Winstrol in any cycle (perhaps even bulking) would be to use it at a very limited dose, in order to lower SHBG (2). One of the properties of Winstrol is it's profound ability to lower SHBG much more than other steroids. A dose of .2mg/kg lowered SHBG significantly, which would, in turn, raise the amount of free testosterone circulating in the body. As with 99% of steroids, however, it's important to note that suppression of your natural hormonal levels will occur (though perhaps not to the extent that it will with many other steroids) (10). As with running virtually any compound, testosterone supplementation (i.e. running Test in a cycle containing Winstrol) is warranted to avoid possible sexual dysfunction.

Adding it to a heavy bulking cycle could be problematic, as stanozolol is a 17aa compound, meaning that it's been altered to endure the first pass through your liver without being destroyed. This makes it an orally active compound, so many people choose to take the pills which are available from both legitimate pharmaceutical companies as well as underground labs. Unfortunately, since it's 17aa, it is also liver toxic; in fact, stanozolol has one of the worst hepatoxicity (mg for mg) of any steroid. This is the reason adding it to a bulking cycle could be problematic; generally a bulking cycle will be very heavy, dosage wise as well as toxicity-wise. It also has undesirable results on Cholesterol, and a mere 6mgs/day of stanozolol can

lower HDL by 33% and raise LDL by 29% (3). Cardiac Hypertrophy, even at lower doses could be a concern with Winstrol as well (4), thus many people limit their intake of stanozolol to precontest or summer-cutting types of cycles. It's generally accepted that due to the toxicity issues of stanozolol, its use should be limited to 6 weeks. As with anything though, many people have run it for up to 12 weeks with no problems. I ran Winstrol for about 3 months (12 weeks) at a dose of 100mgs every other day (along with Test Prop at 125mgs, every other day) and I suffered no ill-effects. My joints felt fine, and I can say that the only thing that was undesirable about that cycle was the injection pain. Generally, people report a "dry" and less lubricated feeling in their joints when on this drug (fluid retention is nil with stanozolol), and also a "dry" overall look as regards contest prep. This could be due to a sort of "reverse-osmotic" effect; of course this is speculation, but people do look "dryer" on Winnie, and some even look dryer in the site they inject (more on this later). There are many conflicting reports on tendon strength and stanozolol, even in medical journals. Some reports state that it weakens tendons, others that it strengthens them (and some speculation on the Internet among many "guru's" is that it strengthens them unevenly, leading to possible injury). For this reason, it may be best for athletes in explosive or high-impact sports to stay away from this drug. It has certainly been shown to be beneficial in some bone ailments induced by glucocorticoid induced stress (5). It also has collagen producing properties (11), but with all of the anecdotal problems athletes repoert suffered with their joints while on stanozolol, I simply can not recommend it with confidence to strength/speed athletes. I can say that personally, it was an effective compound for me and did not cause joint duress, but I can do without the discomfort of the shots, and have found other DHT based compounds to be far more effective (Masteron springs to mind).

As previously stated, this compound is unique, as it is available in both an oral form as well as an injectable form. Both forms contain the exact same compound, but injecting this compound (and yes, you can drink the injectable version, and no you shouldn't) is superior to ingesting it orally in terms of nitrogen retention (6), and thus one would also imagine, for overall anabolism. Injecting it also has the advantage of avoiding the "first pass" through your liver, and thus places your liver under less stress.

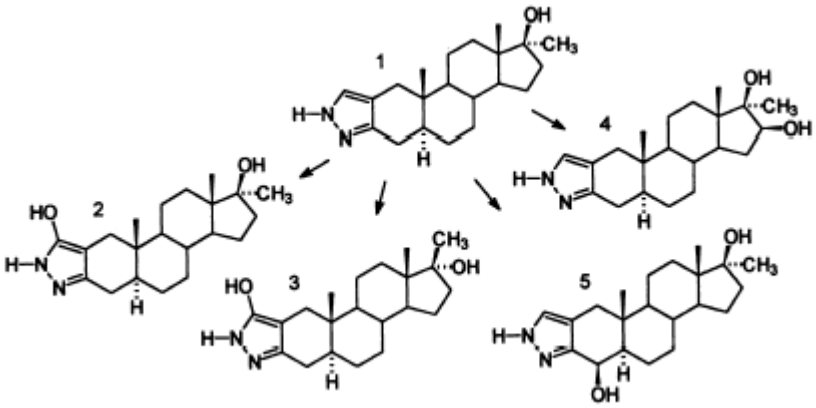
Stanozolol is also one of the few compounds that women can take safely, as it's anabolic: androgenic ratio is quite skewed towards anabolism. It's generally accepted that women can tolerate around 5-10mgs a day of this compound. Men, on the other hand can dose themselves in the .5-1.5mg/kg range. I find 100mgs injected every other day to be sufficient, but of course, even with the injectable form, every day dosing is optimal. I tend to favor DHT based compounds, and have enjoyed great success with a Winstrol/Masteron/testosterone cycle, but I suspect that replacing the Masteron in that cycle with trenbolone would prove more beneficial for most bodybuilders seeking to get ripped.

Although the anabolic ratio of this product is very high as compared to its androgenic actions, not many people report huge weight gains off of stanozolol. Also, interestingly, it has a relatively weak AR binding ability (7), which is quite unusual for a "cutting" steroid. Many of the effects of this drug, as relates to building muscle, are probably from its very high protein synthesizing ability (6)(8). In addition, since this compound is derived from DHT, it tends to promote a very nice, "quality" look to the user's muscles, with little or no water retention. Winstrol does not aromatize at any rate and has even been speculated to have anti-progestenic properties (in at least some cases, where it may "block" that receptor) (9). If one were to run

ancillary compounds with stanozolol, perhaps tamoxifen would be appropriate for it's beneficial effects on blood lipids, but an anti-estrogen (in it's classic sense) would be unwarranted; proper post cycle therapy is still needed, though.

Most underground labs produce Winstrol at very reasonable prices, in both an oral as well as injectable form. Unfortunately, production value differs vastly due to the varying size of the stanozolol powder used to make the injectable version; the finer the powder, the smaller gauge needle it will fit through, and the easier the injection will be. Of course the opposite is also true. In any case, you should be paying under $100 for a 10ml bottle of 100mg/ml concentration, and roughly the same for 100 or so 10mg tablets.

Here's how Stanozolol is metabolized by your body:



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Chapter 10

Ancillary Compounds

This is a category of products pioneered by Dan Duchaine. He first thought of using Tamoxifen (Nolvadex) to help prevent gyno, and later, the use of Clomid to restore endogenous testosterone production after a cycle. The story behind the tamoxifen discovery, in typical Duchaine fashion is that he found a lonely (gay) doctor and a male bodybuilder who was willing to be examined for prostate and testicular cancer in return for a 'script for some Nolvadex. No, I'm not kidding. Anyway, I didn't know much about anti-estrogens and their ilk before I started researching them a couple of years ago, and I'll admit another thing: I didn't care. I knew that 10mgs of Nolvadex per day was all I ever needed to not get gyno, though 150 mgs/day of Clomid seemed to work the same for me. Cytadren (remember that stuff?) worked for me also, at 250mgs/day, but it seemed to make me more prone to joint pain and problems. HCG worked best for me when I shot 500i.u. every other day post cycle for about 3 weeks. Arimidex was too expensive. AND THAT'S ALL I NEEDED TO KNOW!

Now nobody uses Cytadren anymore. We have affordable Arimidex (anastrozole) in liquid form. We have Letrozole. People were using Cialis to maintain sexual ability after cycles, and there was this stuff called "Kynoselen" that became very popular for athletes looking to maintain a little extra edge during their off-time. Finally, some people were even injecting something called "Adequan" to help their joints out on a cycle. The whole category of ancillary compounds has been expanded to include not only anti-estrogens but other similarly useful compounds, like EPO and others, all of which provide us with more options to achieve our goals, without necessarily taking more steroids.

But I had a lot of work to do to catch up….

In the long run, I wasn't that interested in what all this other stuff did because I already knew what worked for me. Well, keep reading and you'll find out why I was wrong, what my new plan is for during a cycle and post-cycle recovery and some other interesting stuff about not getting any side effects from 'roids. I was, of course, wrong in my initial estimation of this class of drugs.

So, first things first. Some steroids convert to estrogen. As you know, this is through the aromatase enzyme, and the process is called (duh) aromatization. When this happens you can get side effects associated with having too much estrogen, including bloating, gynocomastia, acne, and so on. Some steroids on the other hand, have progesteronic activity (Deca, for example actually fits into the progesterone receptor with 20% the efficiency of actual progesterone!) (1). The symptoms (acne, etc...) are the more or less the same for progesteronic and estrogenic effects. Note that I didn't say that these other steroids convert to progesterone, but rather that they have progesteronic effects. That's because the steroid is able to act on the progesterone receptor without conversion to another substance. Hence, on my old bulking cycle of 600mgs per week of Deca and 750mgs per week of Test, anti-estrogens would only help with the aromatization of the test and not the

progesteronic activity of the Deca, which would amplify the estrogen's effects!. Know what else? Here are a bunch of other compounds that don't aromatize significantly (that's good news), and hence don't need any amount of anti-estrogens: methenolone, stanozolol, dromostanolone, oxandrolone, mesterolone, stenbolone, and trenbolone (though it acts on the progesterone receptor with 60% the efficiency of progesterone itself, according to the last study I cited). Taking a big dose of any of these? Anti -estrogens might not help much if at all, per se, but keeping estrogen levels low is still a good idea. Remember, estrogen still has a role to play, in ways we don't fully understand yet, and progesterone will only amplify those effects. Not only that, if you take progesteronic gear and use Nolvadex, you may be at an increased risk for progesteronic sides, as Nolvadex may increase progesterone receptors (2).

What can you do?

Well, the easy answer is to take bromocriptine (Parlodel) at 2.5 to 5mg every day. Bromocriptine is one of those drugs that the life-extension crowd was very big on a few years ago. It is an anti-parkinsons medication that causes higher levels of the neurotransmitter dopamine, with side effects being an increased sex drive, possible curbing of appetite, possible stimulation of CNS, and fat loss. It's also indicated for some forms of male hypogonadism (yeah, so it may increase Test levels on its own!). However, what we're interested in here is that it can be used to lower prolactin and progesterone, as can Cabergoline (if you can find it). Anyway, back to Bromo...it sounds almost perfect, right? Well, unfortunately, bromocriptine is also used to treat acromegaly (too much GH produced by the pituitary), and ergo may lower GH levels in your body if they are too high! Fortunately, the dosage needed to halt overproduction of GH in your body is 10-20mgs/day, so we're safe with our amount necessary to stop from growing breasts from too much Deca, and yes, all the cool fat burning, sex drive, and nootropic "side effects" happen at 2.5-5mgs/ day doses. Another effective method for avoid certain sides from progesteronic drugs (like Tren, for example) is taking 25mcg of T3 or maybe 50-100mcgs of T4. And yeah, I have the research to back that statement up, but it involves another page of reading about TRH, TSH, the negative feedback loop involved with low levels of T4 stimulating TRH, blah blah blah. Trust me, you don't care about the reasons why this works, just that it does. If you're doing Tren, take some T3 and you'll get increased fat-burning, no gyno, and more maybe even anabolism. So if I were cutting up, Tren, T3 (25mcgs), and Bromo would all be part of my stack, and I'd expect to get really cut really fast (of course, there's other cool drugs I'd add into that mix: Clen, Test, etc, but this is about ancillaries, not a cutting cycle).

Another idea to reduce progesterone is to take RU486 (yeah, the pregnancy drug). This drug has anti-progesteronic effects, and in women 600mgs totally blocks progesterone. Don't even think about taking this dose, however. I'd recommend taking around 50 mgs a day and working your way up. Remember, cortisol is also decreased with RU486, so sore joints may be a problem. Considering this, Bromo's cool secondary effects, and price, I'd consider bromocriptine a better choice.

So what steroids do aromatize? Here some offenders: testosterone, methandrostenolone, fluoxymesterone, (only in high enough doses). I'm sure you see a pattern and you get the idea. And Deca, even it aromatizes, besides its being a progestin, though not much.

You still with me?

Okay, so what are some drugs that inhibit aromatization? Cytadren (aminoglutethimide), at 250-500mgs per day will do the trick, as will Arimidex at .5-1mg per day (more about Arimidex later, and remember, this is all dependant on what doses of aromatizing drugs you're taking). Cytadren also limits the conversion of Test to DHT, which may help eliminate any hair loss during a cycle, but may reduce its effectiveness also. Finasteride (Propecia = 1mg tabs, Proscar = 5mg tabs) has similar effects with regards to halting some of DHT's negative effects. Cytadren may also (very) slightly inhibit Test production, so that kinda turns me off to it especially when other drugs actually increase Test production and will prevent side effects more effectively. Unfortunately, Cytadren has a really short ½ life, and it ideally should be taken 2-3x a day. That plus its cortisol inhibiting effects (and the sore joints you get from that) don't make it really ideal for me. On the bright side, Cytadren may (theoretically) improve blood lipid profiles. Finasteride, can be compared with Cytadren, as it also has the added benefit of eliminating some 5-AR (5-Alpha Reductase), which can cause both male pattern baldness as well as acne. Reducing 5-AR will reverse 5-AR inspired hypertrophy of the sebaceous glands and cause a reduction in acne (3), as well as help with hair loss caused by the conversion (via 5-AR) of testosterone to DHT (4). I would never take this stuff without another ancillary, as it can also (rarely) cause gyno.

What else can we do to avoid side effects? Well, we can block the receptors that the estrogen attaches itself to, thus causing the side effects. Clomid (clomiphene citrate) and Nolvadex (tamoxifen) will do this. As these drugs are selective in their activity, they are estrogenic to certain receptors (blood lipid profiles are favorably enhanced by the estrogenic action of these drugs), and antiestrogenic to others (they are anti-estrogenic in terms of their action on breast tissue, for example; yes I know that Nolvadex is actually a weak estrogen that blocks out the competing stronger estrogens with regards to attaching to the receptors in breast tissue—I'm trying to keep things relatively simple, though). Generally Nolvadex is cheaper than Clomid, and thus more often used. Personally, I've found Clomid attenuates testicular atrophy during a cycle to a greater degree. So besides competing with estrogen at the receptor, these drugs both increase serum test levels, and both drugs may also alter blood lipid profiles. With regards to Clomid and Nolvadex, I've found that 20mgs of tamoxifen is equal to 150mgs of Clomid for purposes of testosterone elevation, FSH and LH, but tamoxifen did not decrease the LH response to LHRH (5). Thus, I'd recommend Nolvadex over Clomid for most purposes.
As Nolvadex isn't actually an anti-aromatase, but rather a competitor for the receptor site, and seeing as it increases test levels so much, I'd say that it's actually a better post-cycle drug than Clomid (which wreaks havoc on my eyesight, due to its occular toxicity; Nolvadex has some of that property, but in my experience doesn't mess with my eyesight as much). At least I know that it's what I'll be using post-cycle, even despite its effects on IGF-1. It's important to remember that IGF levels play an important role in breast cancer (which is what many of our ancillary drugs were developed for), so many of them will decrease IGF levels, as that could be desirable for breast cancer survival.

Cyclofenil (remember that drug?) will do just about everything with regards to halting estrogen's binding to receptors that the other two drugs I just discussed will do, but helps LH production to a greater degree. Lowering your LH (in addition to having an adverse effect on the general recovery of your entire hormonal system) will also contribute to estrogenic-type effects. Raising LH = Good. Lowering LH =

Bad. Most people take a tab or 2 per day of this stuff, in any case. There's better stuff on the market, though.

How about Aromasin? Well, it's totally different than everything else we've looked at so far. Aromasin (exemestane) it is an aromatase inactivator; it actually makes estrogen receptors useless. Instead of just inhibiting production (as an anti-aromatase would do) it cuts off production totally. Aromasin can also cause androgenic sides (8)(9)(10). Aromasin can effectively prevent about 90-95% of estrogen conversion. Oddly, this compound can actually increase IGF levels (14). Worth noting is that Aromasin may possibly be less harsh on blood lipids, having no effect in one study (11) that I looked at. No effect is still not as good as Nolvadex, on the other hand, which may actually improve HDL & LDL in some cases (12), and which I've also found to help my immune system. Aromasin has also been shown to have an undesirable effect on blood lipids in some cases…many of these compounds are simply inconsistent on blood lipid profiles, when comparing different studies. We'll discuss the implications of all of these ancillary compounds in just a bit, and figure out where these pieces fit into our puzzle of creating a perfect cycle and post-cycle regimen. Just bear with me.

I think, at this point I'll differentiate between the two types of aromatase inhibitors: or AIs are classified into two types—type I, suicidal or noncompetitive inhibitors, and and type II—known as competitive inhibitors (16)(17). We just looked at one of the Type I's (exemestane). Basically, to further explain, Type I inhibitors are steroidal compounds, and type II inhibitors totally nonsteroidal drugs. This explains the possible androgenic side effects found with exemestane and (as you'll see) the lack of them with Letrozole and Arimidex. Both type I & II mimic normal substrates (essentially androgens), competing with the particular substrate for access to the binding site on the actual enzyme. After this initial binding, the next step is where things differ for the two types of AI's. Once a noncompetitive inhibitor has bound, the enzyme initiates a sequence of hydroxylation, but in this case, hydroxylation produces an unbreakable covalent bond between the inhibitor and the enzyme protein. This is important because now, enzyme activity is permanently blocked; even if all unattached inhibitor is removed. Enzyme activity can now only be restored by new enzyme synthesis. Nice, huh? Now, on the other hand, competitive inhibitors, called type II AI's, reversibly bind to the active enzyme site, and either no enzyme activity is triggered, or the enzyme is somehow triggered without effect. The type II inhibitor can actually disassociate from the binding site, eventually allowing renewed competition between the inhibitor and the substrate for binding to the site. Clearly, this indicates that the effectiveness of competitive aromatase inhibitors depends on the relative concentrations and affinities of both the inhibitor and the substrate. We can safely, therefore, conclude that continued aromatase inhibitory activity requires constant presence of the type II inhibitor.

Let's talk about Arimidex (anastrozole), now, which is a type-II AI. From the research I've done, this seems to be one of the best ancillaries around and I'll tell you why. First off, 'dex is an aromatase inhibitor (an AI—remember what that is?). 1mg per day of this stuff (9) was shown to decrease estrogen by 50% and increase testosterone levels by 58%. LH and FSH also went up slightly. Anastrozole also raises IGF1 and shows a trend towards increasing IGF2 (13). By the way, literature provided by the original maker of Arimidex states that stable blood plasma concentrations of the compound are achieved after 7 consecutive 1mg daily doses. All of that plus the usual blood lipid changes we've seen with most of the ancillaries

we've looked at! Anyway, that's a pretty hefty decrease in estrogen, even at .5mg/day.

Now onto Femara (AKA Letrozole, another type II AI), which is more effective than Arimidex in its ability to pass thru the cell membrane of lipid (fat) cells and inhibit the activity of aromatase—Arimidex is over 80% effective at inhibiting estrogen (18); Femara is much closer to 95-97% (19). Levels of estrogen are totally undetectable in most patients taking Letrozole, and it has even been used to increase testosterone to normal levels (from sub-normal ones) and increase LH, FSH and SHBG (6). Other than that, both of these drugs stop the process of aromatization, rather than just blocking (competing for, if you prefer) the receptors as Clomid and Nolvadex do. An effective dose of Letrozole is .25-2.5 mg/day (I use .25mgs/day), but be forewarned, it can kill your sex drive, and could decrease IGF levels. On the other hand, I've seen studies where it increases IGF levels. Also worth noting is that there's a rebound effect when you come off Letrozole. Its effects on serum lipids (cholesterol, both HDL and LDL) are, in the words of one study I read: "inconsistent." Compared with Aromasin and Arimidex, in non-cellular systems, Letrozole is 2-5 times more potent than anastrozole and exemestane in its inhibition of the aromatase enzyme and its activity, and in cellular systems it is 10-20x more potent! Letrozole (2.5mg daily) also achieved a much greater suppression of the plasma concentrations of both estrone and estrone sulphate (estrogens) than anastrozole (1mg daily), and a greater inhibition of in vivo aromatization (sorry for the geek-speak—it's over for now.) (7). I've used Letrozole, and it cleared up my minor gyno lumps to the point that they are totally gone now, but prolonged use lowered my immune system too much (due to a lack of estrogen).

Interestingly, it would seem that .5mgs-10mgs of Arimidex is nearly the same thing (effects-wise), as is .5mgs-2.5mgs of Letrozole (15). This tells me that we can save some money on them and just take minimal doses, around .5mgs of either.

For my money, if I wanna stop aromatization during a cycle, I'll typically use Arimidex or Letrozole at 5mg/day. Arimidex is a nicer choice for long cycles, since it seems to not cause problems with cholesterol like Letrozole can. They are perfect during-cycle ancillaries. Incidentally, you need to take anastrozole for a week to get a steady level of it in your blood (same thing goes for exemestane), whereas you need to take Letrozole for 60 days to get a steady blood plasma level. Though anastrozole has a ½ life of 41-48 hours, and exemestane has a ½ life of 27 hours, Letrozole has a whopping 2-4 day (!) ½ life (8). Thankfully you can take Arimidex or Letrozole and they'll reach maximum inhibitory effects on estrogen within 2-4 days after taking the first dose (15).

Finally, what about using HCG (human chorionic gonadotropin)? For starters, it increases (stimulates) endogenous (natural) testosterone production by mimicking LH, which stimulates the Leydigs cells to produce testosterone. It's ideal for post-cycle, when you want to raise testosterone levels by as many mechanisms as possible, and while you are also taking other drugs to fight estrogen. I've found personally that 500i.u. every other day or even every day, post-cycle works best for me. Incidentally, this is the PDR (and Dan Duchaine's) recommendation. In one study I looked at, 6000IU of HCG elevated Test levels for 6 days. That's why a lot of people recommend taking it every 3-5 days. We'd have more stable blood levels, though, if we shot it more frequently. Remember, its non-estrified and a water-based injectable, after all. In that same study I read, 1500iu of HCG shot test levels up

between 250 and 300%. Again, though, I'd be more comfortable with the more stable and slow increase. Also, keep in mind that HCG can suppress FSH and LH production and has been anecdotally linked to gyno. Thus, it (in combination with Nolvadex) is ideal for post cycle recovery when gyno is not as much of an issue (due to the Nolvadex and the cessation of other compounds), but restoring natural Test levels is. Also, if you are interested in getting a greater testosterone response out of the HCG you use, I'd recommend taking it vitamin E (no, I'm not joking). Current research indicates that responsiveness of plasma testosterone levels to HCG is significantly higher during vitamin E administration than without supplemental vitamin E (24). My advice? You should be taking at least 400iu of vitamin E year-round, but on the weeks you take HCG (and during PCT) you should bump that dose to 1000iu. Your testosterone levels will thank you.

So let's review:

During a cycle (because I ALWAYS use Test in my cycles), I think it's a good idea to use Arimidex at .5mgs per day, or Letrozole at .25-.5mgs/day to take care of aromatization, thus preventing side effects related to estrogen. If I'm using gear that has progesteronic side effects, I'm gonna avoid Nolvadex, and I'm gonna have to throw in some bromocriptine at 2.5-5mgs every day, especially when I'm using lots of Tren (and perhaps trying to get cut), because I'd want those added "side effects" we already discussed from the Bromo. I'd thrown in that T3 as well. I may (possibly) use a small dose of HCG during a cycle too, perhaps at 500iu every other week, just to try to avoid a little of the inhibition, and maybe make recovery easier.

Now, it becomes really interesting when we try to connect the dots and figure out how to actually combine these compounds for PCT.

When I'm all done with the cycle, can't I just use Arimidex at .5-1mg/day (or Letro), and Nolvadex (at 10-20mgs/day for a month)? Maybe I can just throw in some HCG? Well, actually, if I use HCG for post cycle, it may slightly inhibit recovery by desensitizing your HPTA response to certain hormones. In addition, if I use Nolvadex with Arimidex or Letrozole, the Nolvadex will actually greatly decrease their blood plasma levels (20)!

Ok, so once I started trying to connect these dots, I had a major problem to solve. Most of the PCT drugs available to us have interactions with others, which could render them less useful. This was odd, because my old HCG/Nolvadex protocol seemed to work for me. What I found when I researched this combination is that It can be argued that HCG's suppressive effect on endogenous testosterone is (mostly? totally?) due to to HCG actually blocking the conversion of 17 alpha-hydroxyprogesterone (17 OHP) into testosterone. Nolvadex stops this blocking-action of HCG from taking place (22). In fact, any suppression of gonadotropins via HCG is almost totally stopped with concurrent administration of Nolvadex (23)! Ok, so we can take my old standard (circa 2000-01) PCT, but can we add to it? We know that the Nolvadex doesn't work well with Arimidex and Letrozole, as it lowers their blood plasma levels, and type I aromatase inhibitors are reversible and require constant blood plasma levels to maintain their effect. I think you know where I'm going with this: I asked myself, is it possible that we could use a type II AI (exemestane)?

Well, as you already know, although type II AI's like Letro and Arimidex need to be present in the blood to maintain their inhibitory effects on the aromatase enzyme, with a type I AI (like exemestane) enzyme activity is permanently blocked, meaning

even if all unattached inhibitor is removed, enzyme activity can only be restored by new enzyme synthesis. Hence, even if Nolvadex lowered the blood plasma levels of exemestane, it'll have done its job on the aromatase enzyme, and lowered estrogen levels already. Remember, estrogen has an inhibitory effect on your natural testosterone levels, and it's thought that aromatization is a large part of HPTA inhibition and its negative feedback loop. Does the research support Nolvadex and exemestane combination? Yes! Using those two together doesn't reduce exemestane's effectiveness (21)! And, the androgenic effects of this particular AI will be appreciated after a cycle to increase aggression when exogenous hormone levels are suddenly removed. Also, it won't have any deleterious effects on your joints or bones, which Letrozole and Arimidex have the potential to engender (25).

So that's it—we use Exemestane/HCG/Nolvadex for PCT, and .5mgs of Arimidex or Letrozole during a cycle! It was quick, it was a little dirty, and it was straight to the point. I'm hoping you continue on to read the profiles on the following pages, but if you don't at least you have a cursory knowledge of most of them after reading this.

Before I leave you, I'll give you a chart of how I run my own Post-Cycle-Therapy, and how I feel it should be run, according to my research:

Week	Nolvadex	Exemestane	HCG
1	20mgs/day	20mgs/day	500iu/day
2	20mgs/day	20mgs/day	500iu/day
3	20mgs/day	20mgs/day	500iu/day
4	20mgs/day	20mgs/day	

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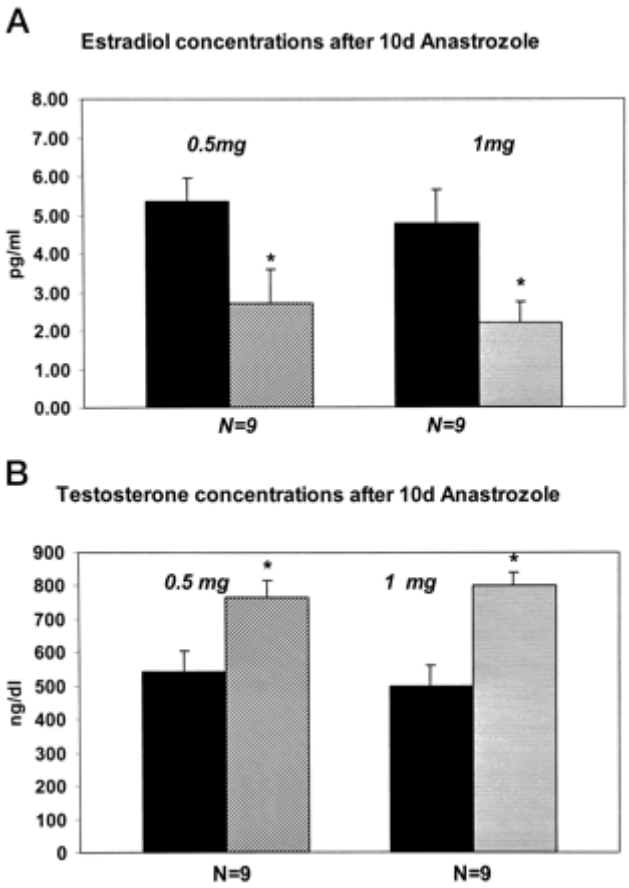
Arimidex

(Anastrozole)

Arimidex is what we call an aromatase inhibitor (AI). In medicine it's used to halt the progression of breast cancer in women. It works by blocking the aromatase enzyme, which is responsible for the production of estrogen. In athletics and bodybuilding, it is used as an ancillary compound to be added to a cycle of anabolic steroids. In this respect it is also used for its estrogen reducing properties, but it has the additional benefit of increasing teststerone levels, as we'll see.

Many anabolic steroids aromatize (convert to estrogen via the aromatase enzyme), and this is responsible for many of the unwanted side effects found with anabolic steroid use (acne, gynocomastia, water-retention, etc.). In one study, both .5mg and 1mg doses of Arimidex were shown to decrease estrogen by roughly 50%. The 1mg/day dose also increased testosterone levels by 58% (1). In that same study, in both groups, LH and FSH also went up slightly. Take a look:



Changes in testosterone and E2 concentrations in normal young men (15–22 yr old) before (filled bars) and after 10 days of oral anastrozole at 0.5 and 1 mg (1).

This would seem to suggest that for use during a cycle, a dose of .5mgs/day would be sufficient to combat estrogen-related side effects. It is, however, important to remember that some estrogen is necessary to obtain optimal muscle growth. The

lower estrogen levels provided by 'dex seems, anecdotally at least, to produce a more "hard" and "quality" look for bodybuilders who have experimented with it's use in either a cutting or bulking cycle.

I'd like to point out that the elevation in testosterone provided by Arimidex is so large that it can be used as a "form" of testosterone replacement therapy for hypogonadal men (2). Clearly, this suggests its use in a post-cycle-therapy (as well as its previously discussed use within a cycle) to regain natural testosterone levels and full HPTA (Hypothalamic-Testicular-Pituitary-Axis) function.

Literature provided by the original maker of anastrozole (Arimidex, produced by Zeneca Pharmaceuticals) states that stable blood plasma concentrations of the compound are achieved after a mere 7 consecutive 1mg daily doses. Also, Arimidex is just over 80% effective at inhibiting aromatase (3). Thus, if you want to take it for the entire duration of a cycle of anabolic steroids, you can simply start taking it on the same day you begin your cycle. Those are some pretty good numbers, huh?

But can you use it for the entire duration of a cycle? Is it dangerous? Well, certainly reducing estrogen levels in your body is good from a body building point of view as it reduces water-retention and the potential for gynocomastia (if there's no estrogen in your body, you can't get gyno, regardless of how much progesterone is floating around) (5). Luckily this stuff is very mild on blood lipids (cholesterol) and doesn't affect them adversely (2), at least in the studies I've seen. As previously mentioned, those lowered estrogen levels could possibly (eventually) adversely affect your cholesterol and possibly even your immune function. I am, however, very comfortable recommending Arimidex for relatively long-term use. This should be the ancillary compound of choice for those on long and heavy cycles, especially since it also doesn't inhibit IGF (insulin-like-growth-factor, an important component of anabolism) like some other ancillary compounds (4).

Although prices will vary, this is one of the compounds I will caution the reader from buying in its legitimate pharmaceutical form. The price (up to $5/tab) is absurd when considering its availability from underground labs, as well as in the form used for medical research, at less than 1/3rd of that. I've used both the tabs from an underground lab, as well as the liquid version from research-sites, and found the results from both to be exactly the same.

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Aromasin

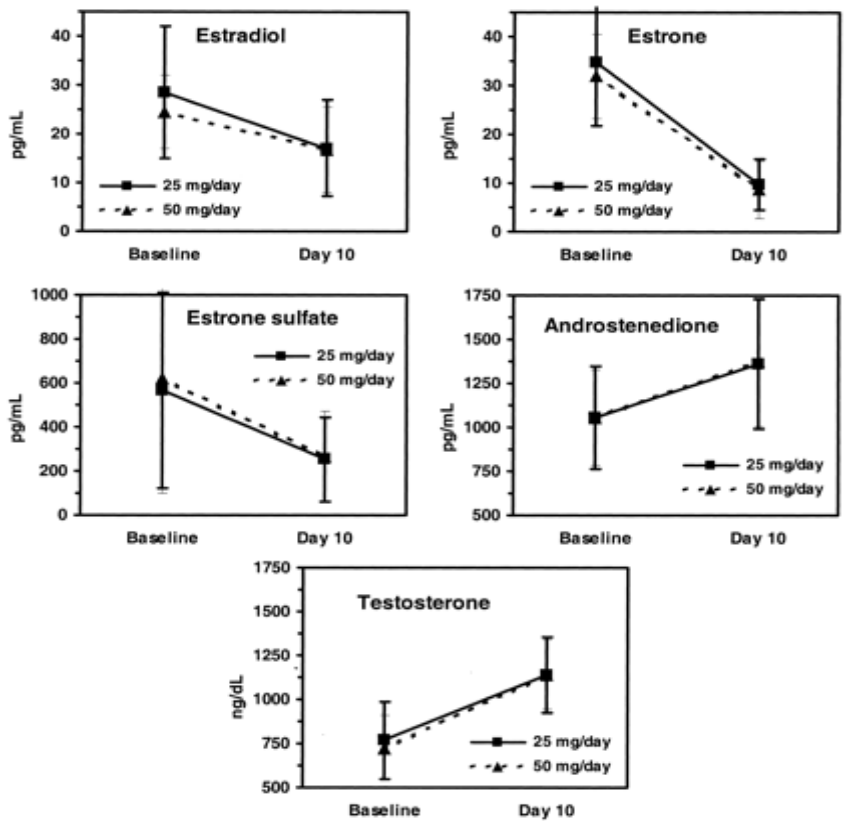
(Exemestane)

Aromasin (Exemestane)is a steroidal suicide aromatase inhibitor, which means that it lowers estrogen production in the body by blocking the aromatase enzyme, the enzyme responsible for estrogen synthesization (1)(2)(3).

This stuff was developed to fight breast cancer in post-menopausal women, who need a particularly aggressive therapy, and for whom first line defenses such as SERMS (Selective Estrogen Receptor Modulators, like tamoxifan) have not worked. This should be our first clue in inferring that this stuff is pretty strong, or at least stronger than some of the other compounds which are used to fight breast cancer.

Aromasin averages an 85% rate of estrogen suppression (4), so it's clearly a very effective agent for bodybuilders and other athletes wanting to avoid estrogen related side effects such as gyno, acne, or water-retention brought on by aromatizing steroids. Specifically, exemestane dose this by selectively inhibiting aromatase activity in a time-dependent and irreversible manner (hence the "suicidal" portion of its name, I guess) (7).

As with most of the compounds in this class, it also causes a reasonable rise in testosterone levels (6), and as you may have guessed, this rise in testosterone means that exemestane can also cause androgenic sides (8)(9)(10). As you can see from the chart below, exemestane is very effective at both lowering estrogen (estradiol) and raising testosterone:

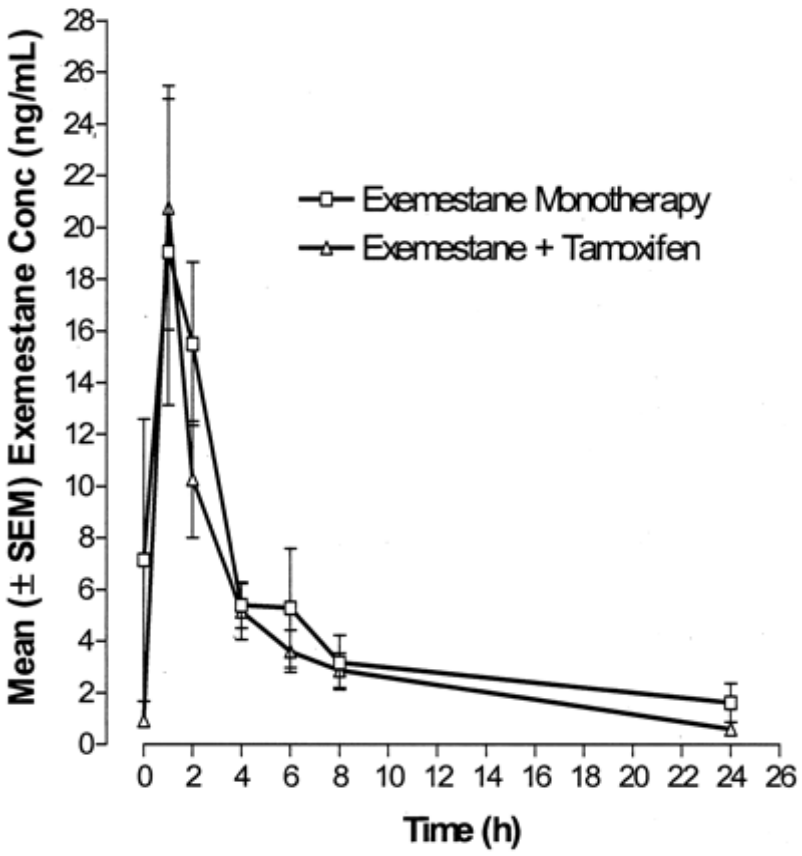


*Estrogen and androgen plasma levels after 10 d of daily exemestane (25 or 50 mg) in healthy young males (mean ± SD; n = 9–11). To convert to Systeme International units: estradiol, picomoles per liter (x3.671); estrone, picomoles per liter (x3.699); androstenedione, nanomoles per liter (*0.003492); and testosterone, nanomoles per liter (x0.03467)* (13).

So we can see from that chart that 25mgs is a very effective dose, right? As an added benefit, exemestane not only increases testosterone and lowers estrogen but it also increases IGF levels (11). Additionally worthy note is that Aromasin may possibly be less harsh on blood lipids (14) than some of the other (similar) compounds we use (other AIs) in the world of bodybuilding or athletics. It also has, at best, no effect on IGF, and, at worst, lowers (13) it. AIs are very tricky with regards to inconsistencies in IGF levels. Unfortunately, you need to take exemestane for a week to reach steady blood plasma levels, and exemestane has a ½ life of 27 hours (12.).

The ability of exemestane to lower estrogen levels by the aforementioned 85% makes it a very nice choice for use in any cycle where aromatizing steroids are used. In addition, since it's not too harsh at all on blood lipid profiles, it's a very good choice for longer cycles. Its ability to raise both testosterone levels also seem to suggest that it would be a very nice addition to a post cycle therapy (PCT).

Also, as previously mentioned, exemestane is the only currently available aromatase inhibitor that can be run concurrently (and effectively) with Nolvadex (which usually lowers blood plasma levels of AIs), making it perfect for PCT:



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Clomid

(Clomiphine Citrate)

Clomid is a drug given to women for use as a fertility aid. It is a SERM (Selective Estrogen Receptor Modulator) which acts by actually binding to the estrogen receptor and thereby blocking estrogen from doing the same. Clearly, this is advantageous when it binds to breast tissue, and prevents estrogen from binding there to cause gynocomastia (although it is not nearly as effective as Nolvadex for this purpose). It also opposes the negative feedback loop that the body has with regards to estrogen and the HPTA (hypothalamic-pituitary-testicular-axis), and this in turn stimulates LH (leutenizing hormone) and FSH (follicle stimulating hormone). LH and FSH, in turn stimulate the release of testosterone. Clearly this is advantageous to bodybuilders and athletes coming off of a cycle, and beginning their post cycle therapy. What we have in Clomid is essentially a drug that acts as a preventative measure against gynocomastia, as well as a drug that acts to raise endogenous (natural) testosterone levels. Usually, it is compared with another SERM, Nolvadex, for those reasons.

Clomid, however, is much weaker than Nolvadex in a mg for mg comparison, with roughly 150mgs of Clomid being equal to 20mgs of Nolvadex (1). It should be noted, however, that 150mgs of clomid will still raise testosterone levels to approximately 150% of baseline value (1). You don't have to use 150mgs, however; my research shows that doses as low as 50mgs will show improvements and elevations in testosterone levels (4). In fact, my original post cycle therapy regime (as suggested by Dan Duchaine in the original *Underground Steroid Handbook*) was 100mgs per day for a week and 50mgs/day for a week. Don't laugh…for the late 90's, when most anabolic steroid users didn't even know how to use Clomid, it was considered a "state of the art" PCT. I suspect that Duchaine originally introduced this compound to the steroid using community.

Clomid, just like Nolvadex, is very safe for long term treatment of lowered testosterone levels (2), with some studies showing its safety and efficacy for up to four months. And post cycle, when steroid users are suffering form lowered testosterone levels, Clomid is most effective.

I used to run Clomid for about 3 weeks post cycle, at 100-150mgs. Any more than that, and I experience emotional side effects (no, really) due to the excess amount of circulating estrogen I have in my body. All of that extra estrogen tends to make me moody, and it gets hard to squeeze workouts and cardio in-between reruns of *Sex and the City* (ok, I'm exaggerating).

A problem arose during a very aggressive Clomid PCT routine once. I was taking pretty high doses (150mgs/day) of clomid for an extended time (over a month) and was having vision issues. When I looked into the subject more closely, this was a common occurrence with Steroid.com members. Upon further investigation, I found out the optic neuropathy (a fancy way of saying "vision problems") was actually very common with Clomid use (5)(6). Since I already wear contact lenses, I've had to remove Clomid from my PCT routine.

Clomid has fallen out of favor as late for post cycle routines, but if you aren't prone to vision problems or emotional issues, then it is just as good as Nolvadex for raising testosterone when appropriate doses are used. I recommend 150mgs/day for ten

days, and decreasing the dose by 50mgs every ten days until you're finished at day 30. Many of the bodybuilders and athletes I've spoken to have used it in a similar fashion and found that it restores their testosterone levels to normal.

This drug is widely available from many research supply companies, generally in liquid form, as well as from most underground labs who produce their own version in capsules. In either case, you shouldn't be paying more than $1 per 50-100mgs (generally this is 2 caps or 1-2mls of the liquid stuff).

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Cialis

(Tadalafil Citrate)

Cialis (tadalifil) is the second-generation Viagra, more or less. While the little blue pill may work to give you an erection for 6-8 hours, Cialis is good for 36-48 hours. This obviously makes it much more practical. Why are we talking about this? I doubt anyone using endogenous testosterone would need to consider the use of such a compound, but this drug can still have some uses during post cycle therapy. A lot of men find that once they go off steroids and begin post cycle therapy (PCT), they suffer reduced libido as well as erectile dysfunction. Cialis may be useful for helping this, at least during PCT.

The efficacy and safety of tadalafil for the treatment of erectile dysfunction was assessed in a 6-month study. Men with mild, moderate or severe ED were given tadalafil (20 mg) as needed or placebo ("any minute now, baby, no, really"). Tadalafil significantly improved erectile function compared with placebo (which only succeeded in embarrassing the men who took it and tried to get laid). At the end of the study, sexual intercourse attempts success rate for those using Cialis was 73.5% (this only refers to the ability to achieve erection and have intercourse, not the actual success rate of those attempting to get laid on a given night) (1).

Of particular interest to those considering the use of Cialis is that lack of sexual activity due to erectile dysfunction actually decreases testosterone levels through a central effect on the hypothalamic-pituitary axis (2). Cialis was given to men for a month, and at the end, they had considerably higher testosterone levels, because they got laid more (2). It is unlikely that the drug has a different direct effect on the pituitary-testis axis.

This stuff is actually very safe, and was even given 3x a week to men (1) for an extended length of time, was well tolerated, had very few sides, and was very effective (1). Thus, it could be another potential compound for inclusion in PCT. Tadalafil (20 mg) significantly improves erectile function, could increase testosterone, and is well tolerated (3)—certainly something to think about after your next cycle.

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Cyclofenil

(Cyclofenil)

This is the least popular of the three Selective Estrogen Receptor Modulators (SERM) being used in athletics today. I actually used this stuff about half a decade ago, when it was just as easy to get as Clomid, and was a bit cheaper. As we already know, SERMs cause ovulation in women and (more importantly to us) increase testosterone and other beneficial hormones. This drug actually works by simulating the effects of testosterone via inhibiting the negative feedback loop caused by estrogen, with regards to testosterone production. This in turn causes the increased secretion of gonadotropin releasing hormone, which increases output of luteinizing hormone which (finally!) increases secretion of testosterone from your testes.

So what we have here is a compound which, being a SERM, will prevent gyno by binding to the estrogen receptor in breast tissue and thus preventing stronger estrogens from binding to those tissues. This should be familiar territory if you remember your facts on Clomid and Nolvadex.

The results indicate that cyclofenil, paradoxically, has two opposing actions on the hypothalamic-hypophyseal axis; one of them is estrogen-like, in that it depresses serum FSH levels and competitively binds to breast tissue (this is good, remember), and the other action is antiestrogen-like, in that it depresses serum PRL levels and raises LH levels (4). Overproduction of prolactin, as you recall, will suppress testosterone, and could induce lactation (gross!) in male breast tissue.

From the reading I've done on this compound, I think 400-600mgs/day would be an appropriate dose for use in post cycle therapy, or during a cycle (4). Dan Duchaine estimated roughly the same, saying that twice as much is necessary when compared to Clomid, twice as often. Due to its relative expense and unavailability when compared to other SERMs, such as Nolvadex and Clomid, I can't see this stuff making its way into many people's ancillary regimen.

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EPO

*(*Erythropoietin)

EPO is a glycoprotein that regulates red cell (RBC) production. In the human, EPO is produced by the kidneys of the adult and by hepatocytes in the fetus. Roughly a century ago, two researchers, Carnot and Deflandre, figured out that a humoral factor, which they called "hemopoietine," regulates red blood cell production. This eventually made it possible to synthesize and eventually clone the gene for EPO and to develop recombinant EPO for use in clinical anemias. EPO binds to an erythroid progenitor cell surface receptor to regulate several functions in your body, such as bone marrow erythroid cell proliferation, differentiation, and survival.

EPO, as a performance enhancing drug, gained notoriety in 1998 when a bunch of cyclists in the Tour de France got caught posessing it.

EPO, when taken exogenously, increases RBC in the blood. This will basically raise your energy levels (1), and thus will improve recovery, etc. Anadrol was developed for a very similar purpose as EPO, and I suspect that a lot of the muscle enhancing effects/potency of A50 (increased muscle fullness, etc.) can be attributed to many of the same mechanisms which are at work in it. It's worth noting that EPO also increases protein synthesis, just like A50. Primarily, though, its effect is to increase RBCs.

Having more RBCs, and thus having more oxygen delivered to muscle tissues, is directly associated with a substantial improvement in athletic performance, i.e speed, endurance, strength, etc.(2). EPO is associated with improved bodyweight, excercise capacity, oxygen uptake, respiration, whole body metabolism and energy efficiency (3). In addition, cognitive function (learning, etc.) is also improved with EPO (4).

Ok, so how much do you take? I'd say you'll need to get about 8,000-10,000IU/wk for 2 weeks. Thats it. You take it all at once over 2 weeks (maybe a little over 1,000IU or so per day for 14 days) and you're done. Then, sometime in week 3, you'll start feeling the results, which will last for 3-6 months! Yeah, you read that right.

Watch your BP, and don't let it get out of hand, because that could mean your hematocrit is getting too high—from interaction with various athletes, I think that we generally want hematocrit around 50 just over. Also remember to keep well hydrated to avoid any possible issues with clotting, and keep some aspirin on hand just in case you find that you need to thin your blood out a bit.

Currently, there is no 100% reliable test for EPO doping, although Lance Armstrong will be accused of using it nonetheless, for the rest of his life, foundlessly.
Sorry…that was a little aside…

Recently, a new EPO-related molecule has been synthesized called "novel erythropoiesis stimulating protein" (NESP), which contains a higher content of carbohydrate and provides a new antianemia agent with a longer circulating plasma half-life *in vivo* than native EPO. I suspect that it would be even more potent, and this may become the doping drug of the future for endurance athletes.

References:

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Esiclene

(Formebolone)

Although technically Esiclene (formebolone) is a steroid, not many bodybuilders use it for any sort of muscle building property. Formebolone is yet another form of methandrostenolone (Dianabol). It's basically the same structure, with an attachment of a 2-carboxaldehyde group and an 11-hydroxyl group. The 11-hydroxyl-group keeps the steroid from aromatizing (converting to estrogen), and from what I can see, the 2-carboxaldehyde group keeps it from being highly androgenic or anabolic. Another thing that is actually more important for our purposes here though, is that the 2-carboxaldehyde group makes formebolone very irritating to inject. That's exactly what made the injectable version of this drug very popular with competitive bodybuilders, especially after Bill Phillips wrote about it. Basically, it's a very weak steroid, with no real anabolic/androgenic activity, in a vial at only 2 mg/ml, and it hurts like hell to inject. There's also no virilization (3) possible, and it's 17-alpha-alkylated and thus toxic to the liver. No anabolic effects, it hurts to inject, and is liver toxic…sign me up! I have, however, decided to make its profile quite different from the other anabolic steroid profiles, because its use is not as an anabolic at all.

It's no wonder that this drug is only popular with bodybuilders, and not athletes. It's purely a cosmetic enhancer for all intents and purposes. Maybe I'm being too hard on formebolone though. Let's take a look at it from an anabolic point of view. Medically, formebolone was mostly used on kids with growth deficiency. It's basically a mild and non-aromatizing methandrostenolone, which at first sounds great. There is an absence of an estrogenic component which could potentially stunt growth, and it was found that ultimate height was not affected by the increases in bone age caused by formebolone treatment. A very mild anabolic effect was all that was noted (1). Unfortunately, another study only indicated that same very mild anabolic activity (2). Also, unfortunately, formebolone can increase nitrogen retention only slightly (3).

Anyway, you can clearly see why Formebolone is really a bit of one-trick-pony. It's really only injected by precontest bodybuilders into lagging body parts prior to a competition, to take advantage of the localized swelling it causes. Swelling caused by formebolone should subside in 3-4 days, roughly the same as with injectable Winstrol or testosterone suspension, after which the injected muscle will return to its original size.

This also comes in oral form, but I can only imagine that it won't really do much, as injectable versions of given steroids are often much more effective. In this case, the oral version doesn't offer us the one thing the injectable version is used for, which is irritation at the injection site.

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Falsodex

(Fulvestrant)

Falsodex is an estrogen receptor antagonist, which has no agonist effects at all. What it does is downregulate estrogen receptors (kinda like how Clen downregulates beta receptors, so you get decreased effects from the stuff). Basically, it binds to the Estrogen Receptor more strongly than tamoxifen, but still has no estrogen agonist effects. Here's the interesting part: the resultant downregulation of your estrogen receptors from the use of Falsodex results in decreased expression of the progesterone receptor as well! Tamoxifen, as we all know, can increase the sides from progesteronic drugs because of an increase in progesterone receptor expression. So you can take this stuff as both an anti-estrogen and an anti-progestin! No more buying Arimidex or whatever, and Bromocriptine! Sweet, huh?

The stuff is administered via an IM injection of 250mgs once per month! And at that dose, it has most if not all of the same estrogen lowering effects of 1mg/day of Arim or 2.5mgs per day of Letrozole, but has the added benefits of lowering progesterone receptor expression.

I haven't seen this anywhere on the black market, and actually can claim to be the first person to mention it on the Internet, generating quite a bit of interest but still, cost remains high, and availability low.

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Fareston

(Toremifene citrate)

This is yet another SERM, which means it will display both estrogen antagonist/ agonist properties in the body. This puts it in the same category as Nolvadex and Clomid, the two most popular drugs in this category. This is, however very different, and you'll soon see why…

Some scientists at a party were bored one day, so they hooked up some time-lapse video to breast cancer cell cultures treated with with toremifene (the chemical in Fareston). Ok, the part about them being bored one day is made up, but they really did hook up time-lapse photography to breast cancer cell cultures treated with Fareston. Anyway, they observed this for 3 days, and it caused approximately 60% of the cells to exhibit morphologic characteristics typical of cells undergoing apoptosis or programmed death. The significance of this to you and me is that this is roughly the same thing that would happen to your gyno if you were taking Fareston. Anyway, the number of mitoses gradually decreased to zero over only a 3- to 4-day period. So this stuff causes growth inhibition of estrogen-sensitive breast cancer cells by inducing some cells to die and by inhibiting other cells from entering mitosis (i.e. from replicating) (1). This stuff will KILL your gyno, from everything I've read (which also means that I've had to read into everything I've read, if you kinda follow me). Now where was I? Oh yeah…kill, that's right. This is certainly good news for someone who wants to get rid of gyno, but since it also prevents the cells from replicating, it will stop gyno from progressing as well as kill existing gyno.

Also of note is that it will reduce prolactin (2), and as you probably guessed, this may raise your Testosterone levels, since prolactin can not only cause lactation, but it also has an inhibitory effect on your Test levels. The unfortunate part about this potentially exciting new compound is that it will also raise sex hormone binding globulin (SHBG), which will in turn lower circulating levels of testosterone in your body (3).

Perhaps this drug, if it can be found, may be used successfully to treat existing gyno, or as an adjunct during a cycle, but certainly not for an effective post cycle therapy.

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Femara

(Letrozole)

Letrozole is the chemical name of Novartis' selective third generation aromatase inhibitor (AI). This drug was developed to fight breast cancer by inhibiting aromatization. It is usually used as a part of an aggressive treatment in post-menopausal women to fight and reverse the spread of breast cancer after other treatments (such as tamoxifen therapy) has failed. It's probably the most efficient product on the market for this purpose currently (5). It is very similar in structure and action to it's predecessor Arimidex.

Letrozole also does quite a few things which would be of interest to both bodybuilders and athletes. First, it has been shown to reduce estrogen levels by 98% or greater (1). In at least one documented incidence, Letrozole reduced estrogen in the test subject to undetectable levels, and increased LH, FSH and SHBG (4). Clearly this is all of interest to bodybuilders, as less estrogen in the body means less chance of certain side effects such as water-retention, gynocomastia, and acne. This makes Letrozole an appropriate choice for even the heaviest bulking or cutting cycles including harsh androgens. Also, if you are a competitive bodybuilder, letrozole is a must have product for contest prep; no other Ancillary compound will produce a dry and tight look like Letro will.

An effective dose of Letrozole is .25-.5mg/day (I use .25mgs/day), but be forewarned, if you go over that amount, it can kill your sex drive. Also worth noting is that there's a rebound effect on your estrogen when you come off letrozol. Maximum inhibition of the aromatase enzyme has been found to happen at doses as low as 100mcg (2)!

Letrozole's effects on serum lipids (cholesterol, both HDL and LDL) are, in the words of one researcher: "inconsistent." Clearly, however, you'll eventually suffer an impaired lipid profile and immune system if you keep your estrogen levels too low for too long. Your sex drive will also probably suffer from extraordinarily low levels of estrogen present.

As previously mentioned, letrozole can be used to raise LH and FSH (which are hormones that signal your testes to produce more testosterone). It also, of course, will raise your testosterone levels (6) via this mechanism. Again, this is of interest to athletes and bodybuilders for obvious reasons. Letrozole can be used for post cycle therapy (PCT) to raise test levels, but for various reasons, tamoxifen may be a better choice. Still, I have successfully used letrozole for this purpose.

How good is this compared with Aromasin and Arimidex, its two other main rivals? Well, in non-cellular systems, letrozole is 2-5 times more potent than anastrozole and exemestane in its inhibition of the aromatase enzyme and activity, and in cellular systems it is 10-20x more potent! It also lasts quite a long time in your body, but takes awhile to get going--letrozole has a whopping 2-4 day (!) ½ life, and you need to take Letrozole for 60 days to get a steady blood plasma level (8).

Those are impressive numbers, but here's one of the most interesting things about Letrozole: it may reduce/eliminate/reverse existing gynocomastia!

In a study conducted on mice (no, I know it's not perfect), gyno-like-changes in the mammary gland were totally destroyed! Here's a direct quote from that study:

*"Our results also indicate aromatase overexpression-induced changes in mammary glands can be abrogated [destroyed] with very low concentrations of the aromatase inhibitor, letrozole." (*7)

In addition, I've used Letro to get rid of my own gyno, as has a friend of mine, and we both used it at a dose of 2.5mgs/day, tapering down to .25mgs/day, and then finally off—the gyno never returned in both our cases.

I'd say that this stuff is pretty great, considering its availability and cost (when you consider the fact that .25mgs/day is more than enough protection from estrogen-related sides on most cycles) not to mention it's overall utility for a variety of functions (destroying gyno, preventing estrogenic sides, and for PCT).

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Finasteride

Finasteride was available for years as Proscar (5mg tabs), but only recently became available as Propecia (1mg tabs). It is in a class of chemicals known as 5alpha-reductase inhibitors. It is based on the progesterone skeleton (4) and has a high inhibitory activity for the enzyme 5alpha-reductase (5-AR). 5-AR, as you may recall, is the enzyme responsible for converting certain steroids into 5-Alpha–Reduced versions of themselves (such as turning testosterone into dihydrotestosterone). Finasteride and similar compounds are used for the treatment of androgen dependent diseases such androgenic alopecia (hair loss), benign prostatic hyperplasia (prostate enlargement) and prostate cancer. Dihydrotestosterone is a 5alpha-reduced metabolite of testosterone and has been implicated as a causative factor for the onset and progression of these problems. This was discovered when males who are genetically deficient of the enzyme steroid 5alpha-reductase were shown to have much lower incidences of these problems (1)(2). Of course, these problems can be a major annoyance, and nothing to toy around with, but by using finasteride you risk reducing your gains on a given cycle, and can even suppress reproductive function (3). I'm not a big fan of this, as you could guess. However, if you are worried about your hairline, or have incidences of prostate issues in your family, then 1mg/day of Finasteride may be the answer you've been looking for.

It needs to be noted that there are actually 2 different 5-AR enzymes, and Finasteride specifically blocks the type-II variety. The type-II 5-AR enzyme is the one responsible primarily for hairloss and prostate enlargement, while type-I is often the culprit behind acne and hirsutism. In either case, type-II is responsible for around 2/3rds of the circulating DHT in your body, so it's no surprise that Finasteride typically reduces your total DHT levels by around 65%.

There is also some novel information about this compound regarding the conversion of testosterone into DHT via the 5-Alpha-reducatase enzyme. It's come to my attention that the actual conversion process of testosterone into DHT via this enzyme may act in some way to inhibit luteinizing hormone release (and ergo would inhibit your HPTA and natural testosterone production). Check this out:

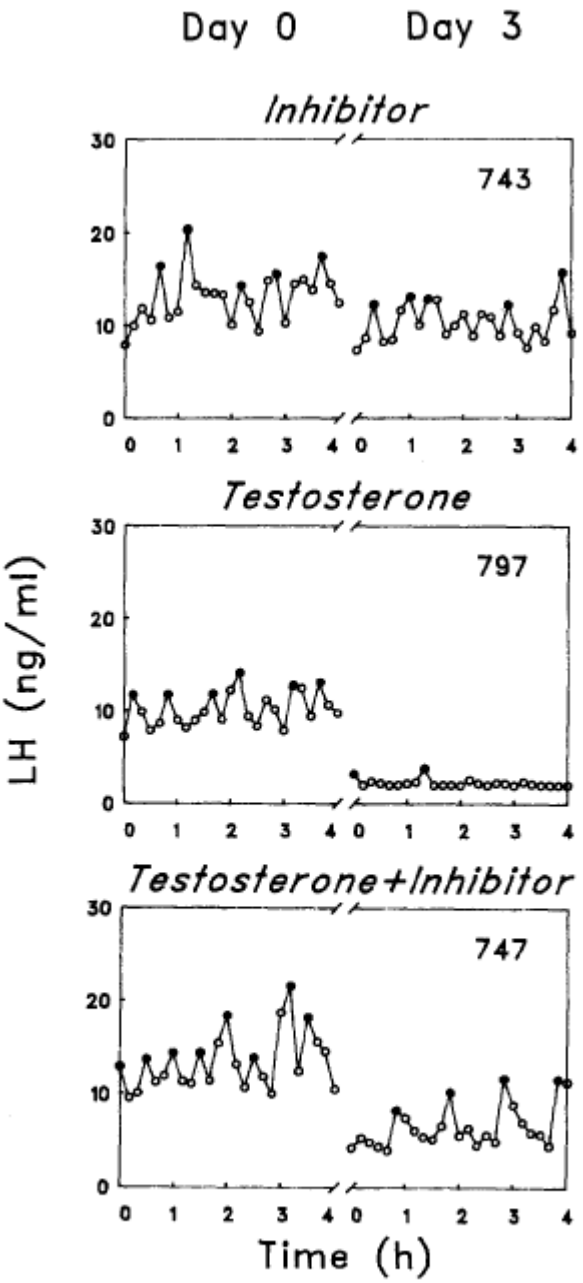

FIG. 2. LH secretory profiles for representative animals before (Day 0) nd after 3 days (Day 3) of treatment with either 0.6 mg/kg/day of RI (top anel), 768 μg/kg/day of T (middle panel), or T+RI (bottom panel). Peaks LH pulses, as identified by PULSAR, are indicated by the solid circles.

Basically, this chart above shows the baseline level of LH in male sheep given a 5-Alpha-Reductase inhibitor (such as Finasteride), then one showing the LH levels in sheep given testosterone propionate, and finally a chart showing LH levels of sheep given testosterone propionate + the inhibitor (graph 3).(5) You'll note that although using the inhibitor alone produced no discernable effects on LH, when administered with testosterone, it seems to have allowed LH pulsality to continue nearly unaffected. This may indicate that you can use Finasteride on a cycle (1mg/day) and

possibly keep your LH levels normal (and thus your HPTA), ergo making recovery much easier. This is, of course only my speculation.

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HCG

(Human Chorionic Gonadotropin)

Scientists first recognized a specific hormone now called Human Chorionic Gonadotropin (HCG) in the 1920's (1). HCG is no doubt one of the most misused, misunderstood and underutilized tools in bodybuilding pharmacology we have available. HCG is not a steroid, but a naturally occurring peptide hormone, produced by the embryo in the early stages of pregnancy and later by the trophoblast (part of the placenta) to help control a pregnant woman's hormones. This makes the uterine lining ready for implantation of the fertilized egg. HCG is a glycoprotein composed of 237 amino acids and has a mass of 36.7kDa. HCG basically "acts" as leutenizing hormone (LH) in your body. LH is a Gonadotropin. These were first extracted from the human, more precisely—the pituitary glands, in 1958. A gonadotropin is any substance that stimulates the gonads (ovary, testes). It is heterodimeric (initiates prophase of mitosis) with an alpha subunit identical to LH, FSH (follicle stimulating hormone) and TSH (thyroid stimulating hormone). LH is produced in the pituitary cells and is made up of a beta chain of 115 amino acids and an alpha chain of 89 amino acids. In the testes, the LH binds to receptors on the Lydig cells, which, in turn, stimulate the synthesis and secretion of testosterone. Like LH, FSH is also a gonadotropin. It consists of a beta chain of 115 amino acids and an alpha chain of 89 amino acids, the same as LH. Production and release of FSH is controlled by GnRH (gonadotropin releasing hormone). FSH stimulates testicular growth and supports the function of sertoli cells, which are needed for sustaining maturing sperm cells. TSH is also known as a thyrotropin and is secreted by cells in the anterior pituitary glands. TSH is comprised of a beta chain of 112 amino acids and an alpha chain of 89 amino acids. The alpha chain is the same as that found in the two other pituitary hormones, LH and FSH, and HCG as well. TSH is produced when the hypothalamus releases TRH (thyrotropin releasing hormone). TRH then causes the pituitary gland to release TSH. TSH makes the thyroid gland produce triiodothyronin (T3) and thyroxine (T4), which controls the body's metabolism.

HCG is clinically used to induce ovulation and treat ovarian disorders in women, as well stimulate the testes in hypogonadal (underproduction of testosterone) men. It is also used in the treatment of undescended testicles in young males. HCG offers no potential performance enhancement in female athletes, but does prove to be very useful in male athletes especially those that use AAS. As stated above, HCG in males is similar to LH, because LH binds to receptors on Leydig cells stimulating synthesis and secretion of testosterone. The use of HCG would be an added bonus to ASS users even if there is a lack of endogenous LH. Since HCG increases the body's natural testosterone levels, its use during long or extremely high dosed cycles can be most beneficial were the effects on the hypothalamus causes a depressed signal to the testicles. The result of the depressed signal leads to what is known as testicular atrophy (shrunken balls). The use of HCG will send an artificial signal to the testes (again, as if it were actually LH), thus preventing (to some degree) atrophy. It not only helps to maintain testicular size and condition but it will also help in restoring testicles back to their original size. At a time when below normal androgen levels (due to ASS use) could become costly, restarting natural testosterone production as quickly as possible is of a special concern in males at the end of a cycle. The price paid by bodybuilders for failing to raise natural Test levels is the loss of most if not

all the hard earned muscle gained; the main cause is cortisol. Cortisol sends a message to the muscles that is opposite to that of testosterone. If cortisol is not dealt with (because of an extremely low testosterone level), it will quickly strip away the new and hard earned muscle you have just obtained.

Some users find that they have better gains and quicker recovery while using HCG during a cycle of AAS. This first claim is more than likely due to the fact that the body has a high level of natural testosterone as well as that provided by the use of AAS, and the second may be somewhat justifiable, as stimulating the testes to secrete testosterone intermittently may aid recovery. Perhaps this is due to the maintenance of a higher level of Inter-Testicular-Testosterone (ITT) provided by the intermittent use of HCG, which should greatly aid recovery of the hypothalamic-testicular-pituitary-axis. An average dose of HCG during a cycle is between 500 to 1000iu every week to every other week while on a cycle. In one study I reviewed, a single injection of 6000IU of HCG elevated Test levels for 6 days. That's why a lot of people recommend taking it every 3-5 days. We'd have more stable blood levels, though, if we shot it more frequently. Remember, it's non-estrified and a water-based injectable, after all. In that same study I just spoke of, 1500IU of HCG shot Test levels up between 250 and 300%. Taking it all at once however will cause an increase in estrogen levels caused by the aromatization of normal testosterone; the result may be a case of gynecomastia for the user.

As regards HCG's use of post cycle therapy (PCT), smaller and more frequent doses after a cycle of AAS would give the best results with the least amount of side effects. A dose of 250iu to 500iu everyday (ed) for 2 to 3 weeks is plenty and should vary little from person to person. The *Physician's Desk Reference* recommends 500iu/day, as did the late, great, Dan Duchaine. The smaller doses are sufficient enough to begin reversal of testicular atrophy, and used in conjunction with nolvade will help the already present problem of recovery without raising the levels of estrogen too high and increasing the risk of gynecomastia in the user. Lower doses of 250iu to 500iu also avoid the further risk of downregulating LH receptors in the testes. The old saying "more is better" definitely does not apply to the use of HCG. You don't want to finish PCT after using too much HCG only to find out your back at the beginning again. Your best bet is to start at 250iu or 500iu ed for 5 or 6 days, and if you don't notice anything happening (nuts dropping and getting bigger) up the dose slightly. Small doses like 500iu two days a week aren't going to cut it like some people think. The only thing small doses of HCG may be useful (sublingually) for is reducing symptoms of benign prostatic hyperplasia (7). Yeah, that's right, you can probably reduce some symptoms of an enlarged prostate with the use of small doses of HCG.

As stated above, the cycles of HCG should be in the 2 to 3 week range with a least one month off in between, you could stretch your cycle out to four weeks without any major concern if you are using lower doses. One should, however, take care when using HCG as prolonged use could repress the body's natural production of gonadotropins permanently, but this is mostly just pure speculation as has yet to be reported—nor has there been a case of an overdose. To be on the safe side, shorter cycles of HCG seem to be that of the norm. Most users cycle HCG near the end of a steroid cycle; you should start your HCG therapy on the last week of yours. For best results, you should also run nolva while you run HCG as taking HCG by itself will do little to nothing and gyno, even though rare, may also flair up. Once the HCG cycle is finished you continue with your usual Clomid or Nolvadex (preferably the latter) for PCT as it is more effective when used in conjunction HCG. With an AAS cycle of 6 to

10 weeks, HCG may not be necessary unless extreme doses of AAS were used, when there is an existing problem of testicular atrophy, or when you are running a heavy oral only cycle. AAS cycles of 12 or more weeks should have HCG as a part of post cycle plan.

Since HCG is used to stimulate testosterone production, side effects can be the same as those associated with AAS, although gyno may be more common. Possible side effects of HCG use are water and sodium retention following higher doses. This is usually a result of higher androgen production. It may cause gyno (again, if doses are too high). Any athletes worried about failing urine tests because of low levels of epitestosterone may find that using a dose of 500iu of HCG will increase epitestosterone levels. However, the problem with HCG is that it is also banned by the IOC and can also be detected in a urine test; the half life of HCG is approximately 4 to 5 days. Another possible downside to HCG is that it to can be suppressive to natural testosterone because it takes the place of LH. LH is manufactured in the pituitary because of the response of GnRH (gonadotropin releasing hormone), which in turn is secreted by the hypothalamus. Because the HCG mimics LH and is being supplied exogenously, the hypothalamus will be given a signal to still stop producing GnRH, so no natural LH will be produced. This is why it should always be used with a compound such as Nolvadex. Let me explain: HCG's suppressive effect on endogenous testosterone is (mostly? totally?) due to to HCG actually blocking the conversion of 17 alpha-hydroxyprogesterone (17 OHP) into to testosterone. Nolvadex stops this blocking-action of HCG from taking place.

So although HCG is essential after long or heavy cycles, it should not be used without an ancillary such as (specifically) Nolva. Also HCG therapy should be discontinued at least 2 weeks prior to stopping the use of Nolva, or it may suppress natural testosterone itself. This should not be a problem if you are running it towards the end of your cycle of AAS and before PCT.

The average price of HCG is between 10$ to 40$ per 5000iu with solvent; it comes in doses of 100, 125, 250, 500, 1000, 1500, 2000, 2500, 3000, 5000, 10000, 20000—all iu (international units).

HCG is readily available and can be found in almost all the places where you may find AAS. If you have a good source you should have no problems in obtaining this product. There are currently only a few fakes of HCG around, mostly few and far between. Since the powder of HCG is similar to the powder of somatropin, often cheaper HCG is sold and marketed as the more expensive HGH (human growth hormone) on the black market.

References:

(All references for the claims made about HCG are found in the introduction to this chapter)

Ketotifen

(Ketotifen)

Ketotifen was made popular by its ability to inhibit the down regulation of beta receptors caused by drugs like clenbuterol. Clenbuterol, albuterol, and ephedrine used to be cycled on and off because they desensitize the various receptors they act on to produce their lipolytic effect. Ketotifen would therefore allow the use of these fat burning drugs for much longer periods. If you've read my writings on clenbuterol, you already know that Benadryl (the anti-histimine) can also be used for this same purpose, and is 10x cheaper and infinitely more available to most people. So why am I bothering to write about Ketotifen at all?

Ketotifen, in medical circles, is also recognized for its ability to lower levels of the cytokine tumor necrosis factor-alpha (TNF-alpha), which is a catabolic hormone, and this is a property that Benadryl does not have, to my knowledge. TNF-alpha lowers both testosterone and IGF-1 levels (3)(4), and strenuous exercise elevates TNF-alpha levels (5). TNF-alpha has also been shown to increase insulin resistance,, which we certainly don't want.

Ketotifen is used by people suffering from wasting diseases partially caused by TNF-alpha. I think, however, its ability to lower TNF-alpha is going to be overshadowed by anabolic effects produced by anabolic steroids. In one study involving AIDS patients, combining ketotifen and oxymetholone (Anadrol 50) showed that the ketotifen didn't add much to the oxymetholone induced weight gain (1). Hence, you are reading this profile in the "Ancilliaries" portion of this book, and not the "Fat – Burning" part, even though Kktotifen is typically used as part of a fat burning cycle including Clen. Benadryl is simply too much cheaper and readily available to use ketotifen in it's place with Clen. However, for post cycle therapy, ketotifen and its ability to lower TNF-alpha, is a very valuable tool. You see, hypogonadism (low testosterone) often accompanies elevated TNF-alpha levels (6), and after a cycle of anabolic steroids, you are going to be in a hypogonadal state, with elevated TNF-alpha. Thus, taking ketotifen with your PCT is probably a very good idea. I recommend 1-3mgs/day before bed because this stuff will make you pretty drowsy.

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Kynoselen

Kynoselen was one of those weird quasi-legal, grey market drugs that used in horse racing that its way into the anabolic arsenal of many athletes and bodybuilders. I will be frank and say that its effects are generally more profound in those who are already reasonably lean and muscular. I've noticed, through my research, that the biggest mitigating factor in this stuff's use is that its not doing mych (cosmetically) for those whose bodyfat is too far over 12%. Over 15% and I'd go so far as to say kynoselen is a waste. Its fat burning properties are felt proportionately with how lean you already are. It will help with vascularity if you're lean also. Women seem to be much bigger proponents of this stuff than men, generally, but that's probably because they tend to aim for comparatively less gains than men, and thus are much more satisfied with a few lean pounds or a few solid strength increases. Again, on a lean 125lb female, 5lbs of lean mass is very noticeable—much more so than on a male twice that size.

Lets unpack a bottle of Kynoselen and see what's in it:

- AMP (adenosine monophosphate) is what I'd consider to be the primary active ingredient of Kynoselen. This is a source of phosphorous. It combines with 2 phosphate atoms to become ATP (adenosine triphosphate), which provides an immediate source of cellular energy. AMP aids lipolysis (1), or fat-burning, and it's probably the inclusion of this ingredient that makes Kynoselen's effects in this area the most profound. It also has the ability to convert to ATP, or adenosine tri-phosphate. ATP is the primary carrier of energy within cells, and most cells die quickly in the absence of it. ATP in turn powers muscles. This is probably why users of Kynoselen report an increase in "energy levels."

- Magnesium aspartate has a major role in muscle contraction (5)(6), and this is why it's in high demand with many strength athletes. When Dan Duchaine made his supplement recommendations nearly a decade ago in *Muscle Media*, this was on the list. Magnesium also activates enzymes necessary for the metabolism of carbohydrates and amino acids, which leads to protein synthesis.

- Heptaminol is also included in this preparation. It aids in dilation of coronary blood vessels and could thereby act as a sort of transport aid for oxygenated blood (4). I'm sure this is partly why it's given to race horses as a kind of "wellness tonic."

- Cyanocobalamin (vitamin b-12) has been included in Kynoselen, and bodybuilders and other athletes have known about this substance's role in increasing energy and appetite stimulation. A deficiency in this vitamin leads to anemia, so it's always a good idea to include it in your diet. The injectable version is also very popular.

- Selenium is an anti-oxidant, and has been used as a protective agent in spinal cord injuries. I would imagine that keeping racehorses free from injury would be very important to their owners; hence its inclusion in this preparation.

- Potassium aspartate: Mainly, we know that potassium keeps you from cramping, and again, since we are examining a compound given to racehorses, it's logical to assume that a smart breeder/owner would like to prevent his horse from cramping when millions of dollars are on the line in a race. Potassium also assists in many cardiac functions, and will probably act synergistically with magnesium to aid in muscle contractions (7).

Looking over the ingredients of Kynoselen, it's easy to see why it's used for horse racing, and I think its similar use in athletics is pretty obvious. Sprinters and strength athletes would greatly benefit from its various energy producing substrates, as well as the ingredients added to increase contractile strength in skeletal muscle. I have heard about some pretty decent increases in strength from the sole use of this compound, and certainly it has found its way into many powerlifters' cycles.

For bodybuilders, its benefits are pretty different. It seems to be most widely used for PCT, when it can be used in conjunction with our SERMs and AI's to hold onto gains by increasing our ability to continue using the weights that got us to the size we were while on anabolics.

Kynoselen comes as a 100ml multi-use vial. Typically, athletes and bodybuilders pay $50-$75 for it, and inject between 1-3mls per day. The only complaint I've heard about it is that it's painful to inject it, so I would recommend injecting it with an equal amount of b-12. If I were to use it personally, I'd use Syntheselen, which is actually an injectable product containing all of the above ingredients, but manufactured to human grade standards.

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Nolvadex

(Tamoxifen Citrate)

This drug is used as a first line defense against breast cancer. In the late 80's, Dan Duchaine speculated that it could also be used by bodybuilders to halt the development of another type of tumor in the mammary gland—gynocomastia. He introduced this find to the steroid-using-community in his "Contest Prep" issue of the *UnderGround Steroid Handbook Update Newsletter* (the contest prep-issue was actually 3 issues in one, for those who had a subscription to the newsletter).

Nolvadex is commonly referred to in quite a few ways: as a SERM (Selective Estrogen Receptor Modulator), as an anti-estrogen (that is actually incorrect, as we will later see), and finally as a triphenylethylene. I happen to stick with calling Nolvadex a SERM, because out of my three options, it happens to be correct (as we know that calling it an anti-estrogen is incorrect), and pronouncable (as we know that I have no idea how to say "triphenylethylene"). Selective estrogen receptor modulators (SERMs) act as either estrogen receptor agonists or antagonists in a tissue-selective manner. Let's see what that means to us.

Nolvadex actually has quite a few applications for the athlete using steroids. First and foremost, its most common use is for the prevention of gynocomastia. Nolvadex does this by actually competing for the receptor site in breast tissue, and binding to it. Thus, we can safely say that the effect of tamoxifen is through estrogen receptor blockage of breast tissue (1), especially since total body estradiol increases with its use. Clearly, if you are on a cycle including steroids that convert to estrogen, you may want to consider Nolvadex as a good choice to run along side them. Nolvadex, however, is not the most potent ancillary compound we can use on a cycle, but it is probably the safest considering it doesn't actually reduce estrogen in your body; keeping some estrogen floating around can have many benefits on muscle growth, as well. Estrogen is also important for a properly functioning immune system. Not only that, but your lipid profile (both HDL and LDL) should also show marked improvement with administration of tamoxifen (4). Many bodybuilders actually use this stuff during their cycles for the health benefits it provides. If, however, you are preparing for a bodybuilding contest, you need to use something that will suck most (if not all) of the estrogen out of your body. I am speculating that you may be able to use Nolvadex for the majority of a contest prep cycle, to keep yourself relatively healthy, and then switch over to letrozol for the last 8 weeks.

Nolvadex also has some other interesting features for steroid users. In hypogonadic and infertile men given nolvadex, increases in the serum levels of LH, FSH, and—most importantly—testosterone were all observed (2)(3). The best (rough) estimate I can give you from my research is that 20mgs of Nolvadex will raise your testosterone levels about 150% (5), and this would of course greatly aid post cycle recovery. What this means to us is that if you take nolvadex after a cycle when you are trying to raise your levels of testosterone, LH, and FSH back to normal, it will greatly aid recovery. In fact, if I were limited to just one compound to aid me in post cycle recovery, nolvadex would be my choice. If you want a comparison, it would require 150mgs of Clomid to accomplish that type of elevation in testosterone, but nolvadex also significantly increased the LH (Leutenizing Hormone) response to LHRL (5), after 6 weeks.

Some of the more harsh ancillary compounds available today will give you a more "dry" look that nolvadex can't, but nolvadex is simply safer to use in long (over 16 week) cycles.

Unfortunately, nolvadex isn't perfect. Anecdotally, it has been linked to reduced gains in some bodybuilders. This isn't due, as previously thought, to its reducing estrogen levels (which it doesn't), but rather to it's ability to possibly reduce IGF (Insulin-like-Growth-Factor) levels, which are important for muscle growth (6)(7). This lowering of IGF levels is probably due to lowering of GH at the pituitary.

Personally, I've had many successful cycles with nolvadex as well as without, but I can certainly testify to its effectiveness in preventing gynocomastia. Back in the late 90's I purchased 30 tabs of 10mg Nolvadex for $30, and recently I have found it for much less on various Internet sites. It's well worth the money.

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PSGAG

Polysulfated Glycosaminoglycan (Adequan), manufactured by Luitpold Pharmaceuticals, Inc

Got sore joints? This stuff might be the answer for you. Don't get me wrong, there's tons of stuff out there that's pretty good (ibuprofen, naproxin, etc.) and could relieve some pain and inflammation. I'd recommend trying all of the NSAIDS available OTC before you start shooting up. With that said, here's the deal on PSGAG:

This is a water-based injectable and is used for treating animals (dogs and horses) who have degenerative-type or joint problems. From the research I've seen, this drug is much better at treating degenerative type joint problems in animals (hip-dysplasia, tendonitis, arthritis, etc.) than it is at treating traumatic injuries. It does, however, work for both. Basically, in every measured area that's relevant to treating a joint problem (range of motion, flexion, increase in synovial fluid, etc.), this drug has been shown to display improvements in test subjects. Get it? When this drug was given to test animals, all of them showed improvement in their joint-related problems.

Now, check this out: As a side effect IM administration of 500mgs E4D for 12 weeks of PSGAG, the mean test subject showed roughly a 13.5% increase in bodyweight! Yeah, you read that correctly. Not only does this stuff help heal joint injuries, it may be anabolic! This may be due to the fact that it elevates both white blood-cell count as well as the polymorphonuclear cells. Also of note is that it elevates lymphocytes.

So how much of this stuff should a 200lb bodybuilder take? Well, ideally, I'd say 125mgs, IM, every 4 days. This should be done for at least 28 days, and possibly for as long as twice that.

How much will it cost? Well, a 5ml, 100mg/ml bottle is going to set you back about $50. If you're taking it as I recommend, then each bottle (vial) will last you 16 days, so you'll need at least 2-5 bottles. Its also sold similarly priced in the ever-inconvenient 5ml amps.

Teslac

(Testolactone)
[17 alpha-oxa-D-homo-1,4-androstadiene-3,17-dione]
Molecular Formula: C19 H24 O3
Molecular Weight: 300.3968
Melting Point: N/A
Manufacturer: Shering
Release Date: 1970
Effective Dose: 250mg/.day
Active Life: up to 24hours
Detection Time: 4-6 weeks
Androgenic: Anabolic Ratio:N/A

Teslac is one of the very first drugs approved by the FDA to fight estrogen-dependant breast cancer, back in 1970. It does this by possibly inhibiting the aromatase enzyme in what appears to be both a noncompetitive and an irreversible manner.

I have to admit, when I first went to research this compound, I had thought I was researching a useless old Anti-Estrogen. Anyway, I took a quick look at its chemical structure, and realized that it was actually an anabolic steroid, but still decided to put it in this chapter. Oddly, its D-ring (usually pictured as the upper-right hand ring in models) is a weird 6 members lactone ring, instead of the usual 5 ring one that testosterone has. So, now I know it's an anabolic steroid, but what kind? And what would it do? Primarily, it's an Anabolic Steroid whose claim to fame is being used primarily for it's antiestrogenic effects (much like Proviron), and I think that it's been wrongly assumed to be simply an antiestrogen by many athletes. This is not the case, and as you'll soon see, there's really no reason why this stuff has been pushed out of use by bodybuilders and athletes for the last decade.

The first study I looked at (1) showed that Teslac increases testosterone (by 47%) and it's precursor androstenedione (70%) levels in the body. In the second study I looked at, it raised testosterone levels in men up to 290ng/dl (almost enough to bring you from 0 Test to the lowest end of normal/acceptable range), as well as raising LH (leutenizing hormone) levels, and even FSH (Follicle Stimulating Hormone) levels slightly (2). So as you can see, not only is this stuff not suppressive of your natural hormones, it actually stimulates your body to produce more testosterone as well as the hormones that produce it (2). It has been shown to reduce aromatization by 90-95%, with regards to decrease in the overall rate, in some instances (7). In another study, aromatase inhibition by testolactone, at a dose of 500 mg twice daily (so a total of 1,000mgs/day) for 4 weeks lowered circulating estradiol (E2) levels by roughly 1/3rd and enhanced the secretion of follicle-stimulating hormone and testosterone by approximately the same amount (1/3rd each) (6). Basically, we're looking at pretty decent reductions in both aromatization, as well as reduction in total estrogen floating around your body.

So far, we have seen that, in different studies it has been shown to increase LH as well as FSH, respectively. In addition it raises testosterone levels and lowers estrogen levels in all of the studies we've examined. Raising FSH, LH, and testosterone while lowering estrogen is a pretty good deal considering most steroids lower endogenous (natural) production of the first three, and raise estrogen.

In fact, I'll go so far as to say that if you don't want to do any shots (injections) during your post cycle therapy (PCT), Teslac may be perfect for you, since it will raise LH as well as HCG in most cases! And it has the added benefit of not desensitizing your Leydig cells as much as HCG has the potential to do. Another important benefit of using Teslac over HCG during your PCT is that HCG actually may raise estrogen levels and/or act as an estrogen in certain tissues (8) (9), while we know that Teslac lowers estrogen levels and acts as (of course) an androgen.

This means, of course, if you are one of those people who inclined to bridge (use a low dose of an anabolic compound between higher dose cycles), then this is perfect for you. In addition, you'll be able to use Teslac during a cycle as an ancillary compound that will eliminate aromatasation.

Possibly the most exciting thing I read about Teslac is that it has been PROVEN (!) to be an effective and safe treatment for gynocomastia (3) (development of breasts in male mammary glands, often ineloquently referred to as "bitch tits" in gym-speak). So yeah, if you get a bit of gyno on a cycle, you may want to include Teslac in your PCT for both the (very good) reasons I revealed above, as well as it's potential to treat your gyno.

The only prohibitive thing about Teslac is cost. Currently, I don't know of any online pharmacies that carry it, nor UG labs. It generally sells for anywhere between a dollar and $5 for a 250mg tab. If there's anything preventing this stuff from becoming the "must have" drug for PCT overnight, it's cost.

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Chapter 11

Sympathomimetics

(And other Fat-Burners)

Ok—first things first: a sympathomimetic is simply a drug that stimulates the sympathetic nervous system. Basically, what I'm going to tell you about here are stimulants and their effects on fat-burning, and their use as pre-workout enhancers.

Lets get to it!

There are two types of adrenergic receptors, alpha and beta, as well as various sub-types of each. The first we'll talk about is the alpha adrenoreceptors.

The most well known adrenoreceptors are the ever-popular beta receptors. Beta receptors are embedded in the cell's outer phospholipid membrane. These can be divided into subtypes 1, 2, & 3, while their less popular cousins, the alpha receptors are broken into subtypes 1 & 2. Alpha receptors are activated at lower catecholamine levels than are the beta receptors. A catecholamine is an organic compound (an amine, obviously) that affects the sympathetic nervous system. Dopamine, norepinephrine and epinephrine are all catecholamines.

Activation of the alpha2 receptor inhibits the release of norepinepherine. This is of course a "fight or flight" hormone. Ever get nervous? If you're like most people, you got physically agitated, started sweating, and lose your appetite. That's your "fight or flight" hormones at work. It is the differences in regional distribution of alpha2 and the beta receptors that is responsible for a large part of the gender differences in body fat storage.

Males have a noticeably greater alpha2 density in abdominals as compared to women—which contributes to our increased adipose storage there—but the main difference is caused by higher lower-body alpha2 activity in women, as well as by beta receptors, which are more highly expressed in males. Women experience the lipid storing phenomenon in their butt/hips because women have a 3 quarter higher alpha2 binding in lower body adipose than men, and have a pronounced decreased energy expenditure in gluteal obesity versus abdominal adipose. Men have this phenomenon in their abdominals, as we've already covered. Ever wonder why men and women carry fat differently? This is why.

Adipose (fat) tissue has very poor vascularity (blood flow). Take a look at the fat on the next steak you have; it's white—very little other. That means there's not much blood in it. When triglycerides are broken down into free fatty acids (and glycerol) during lipolysis, your body has to then get them out of the area, or they'll just be reincorporated into the existing fat that's still there. Sucks, right? Well, when you stimulate your beta receptors, it causes vasodilation, thus increasing blood flow. As

I'm sure you can guess, that will aid in transport of fatty acids out of the area, as well as their break down. Alone, beta receptor stimulation will not increase vasodilation enough to get rid of 100% of the free fatty acids released during lipolysis. Enter alpha receptor activation. Alpha receptor deactivation causes a decrease in blood flow, while antagonism of the alpha receptors increases blood flow, and thus increases the mobilization and disposal of these fatty acids. Clearly, combining alpha and beta stimulation would be ideal in a fat burning stack of drugs or supplements.

Now that we have a decent understanding of alpha receptors and what they're about, let's briefly talk about Beta Receptors. Beta receptor stimulation can increase your body temperature a bit by increasing heat production in the mitochondria, increase your basal metabolic rate, and decrease your appetite. This only in part explains how beta agonists directly stimulate fat cells and increase lypolysis (fat loss).

Although it's counterintuitive, let's first go over the actions of beta-3 adrenoreceptors. These beta receptors are the black sheep of the beta receptor family, so much so that they were previously called the "atypical" beta-AR. The mechanism of beta-3 action is still, at this point, poorly understood. From what is currently understood about them, the beta-3's stimulate uncoupling protein 1, 2, & 3, which greatly influences mitochondrial uncoupling, leading to increased heat production and energy expenditure. This mechanism is how DNP works, although to a much (much!) greater degree than any beta-activator ever studied (including those which stimulate the beta-3's). Beta-3 stimulation also increases mobilization of fatty acids from triglyceride stores. All of this would be great, but currently the only beta-3 action we can see is from carry-over effects gleaned from other traditional beta-1 & 2 agonists like ephedrine and clenbuterol. There are no currently available beta-3 agonists in circulation. In addition the preliminary studies on beta-3 agents in rodents were very misleading, since beta-3 receptor activation in rats and humans is very different. For practicality's sake, I'm going to cut the beta-3 discussion a little bit short, since we don't know too much about it, and can't really get anything to take advantage of the little knowledge we do have on it.

Both beta 1 & 2 receptors have the ability to increase energy expenditure when they are stimulated, though the differences (and similarities) between them can be discerned from the following: In humans, both Beta-1 adrenergic stimulation and Beta-2 adrenergic stimulation also increase energy expenditure. However, in contrast to rodents, this type of adrenergic-stimulated thermogenesis in humans is mainly located in skeletal muscle. For rodents, the major site of thermogenesis is actually brown adipose tissue, as opposed to skeletal muscle, where it occurs for humans. Besides increasing energy expenditure, both beta-1 & 2 adrenergic stimulations also increase adipose tissue lipolysis. It has also been pretty reasonably proven that the increased lipolysis is responsible for a large percentage part of the increase in energy expenditure after the beta-1 adrenergic stimulation. In contrast (and this is possibly their biggest difference), beta-2-adrenergic receptors are mainly localized in skeletal muscle and not in adipocytes; it can be reasonably concluded that stimulation of beta-2 receptors may actually exert a more direct effect on energy expenditure than beta-1's do. This may even be the primary difference in the "how does this happen?" difference between the very similar effects of beta-1 & 2 agonists. In fact, in all of the following charts, you'll see this effect in the "SAL+ACL" portions of the charts, which is where a beta-2 agonist (salbutamol noted as "SAL" in all the charts) was combined with a compound to inhibit fat oxidation (thus showing salbuterol's true

effects on energy expenditure absent of increased lipolysis), compared with energy expenditure of a beta-1 agonist (dobutamine, noted as "DOB" in all the charts).

In the chart below, beta-1 stimulation (DOB) resulted in a 0.58 ± 0.20 kJ/min ($P < 0.05$) increase in energy expenditure, whereas the beta-2 stimulation (SAL) showed a 0.72 ± 0.12 ($P < 0.001$) and 0.62 ± 0.12 ($P < 0.001$) kJ/min increase. And, as I previously stated, the SAL+ACL group's energy expenditure was similar to the SAL group, telling us that *energy expenditure with beta-2 agonists is not dependant on fat oxidation*. Thus, beta-1 & 2 receptor stimulation produce different energy expenditure through different means. Here's that chart (and a few more after it):

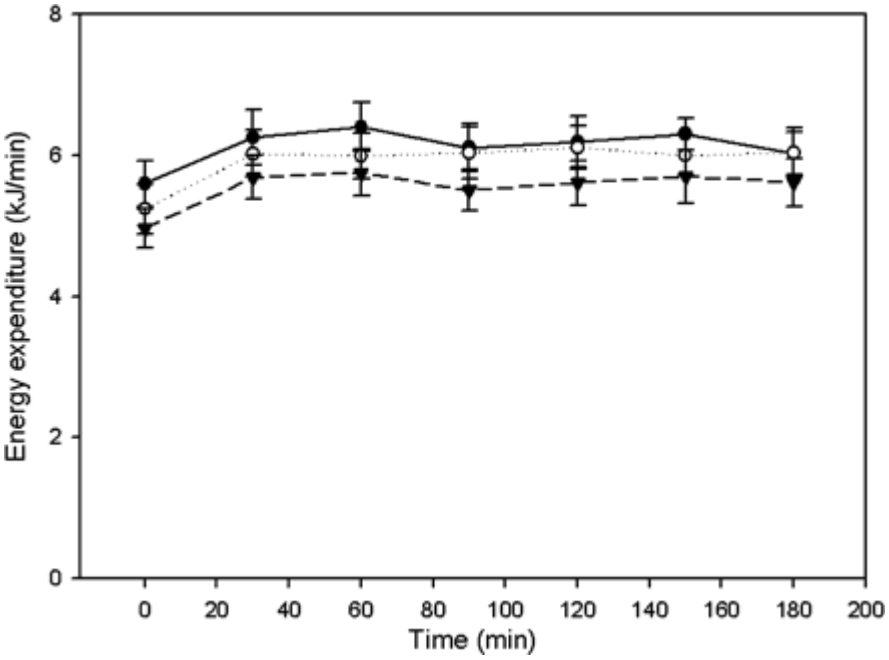
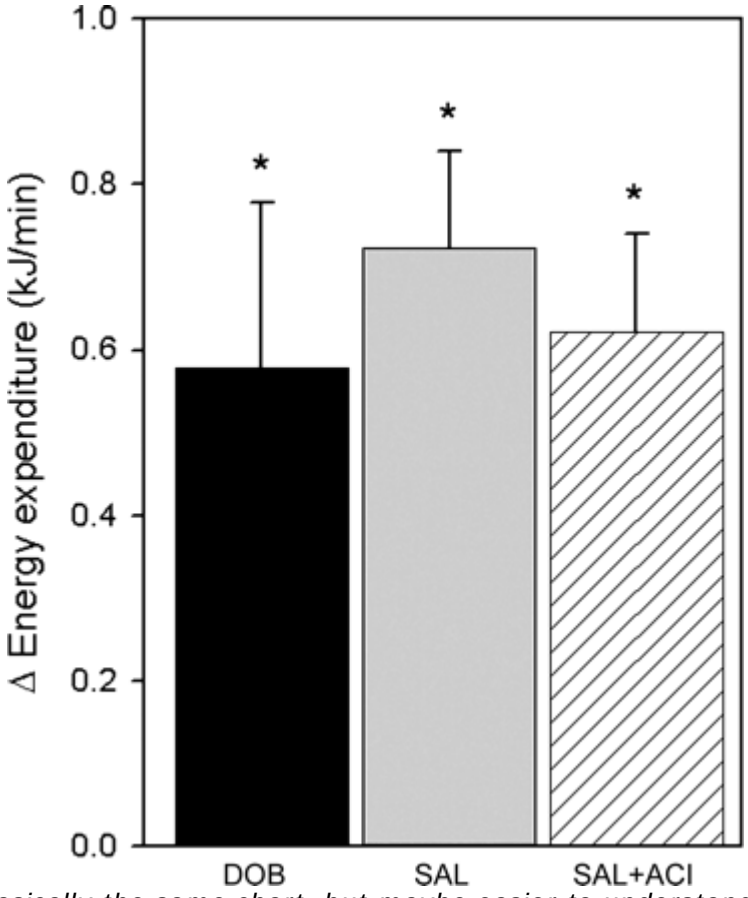
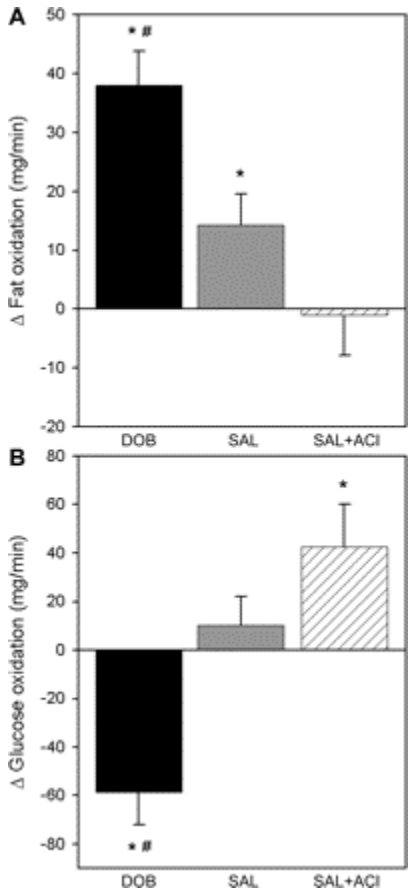


Fig. 1. Energy expenditure during Beta-adrenergic stimulation. Values are means ± S dobutamine (DOB) (indicated by dark circle), salbutamol (SAL) (triangle)SAL+acipimox (ACI) (open circle).



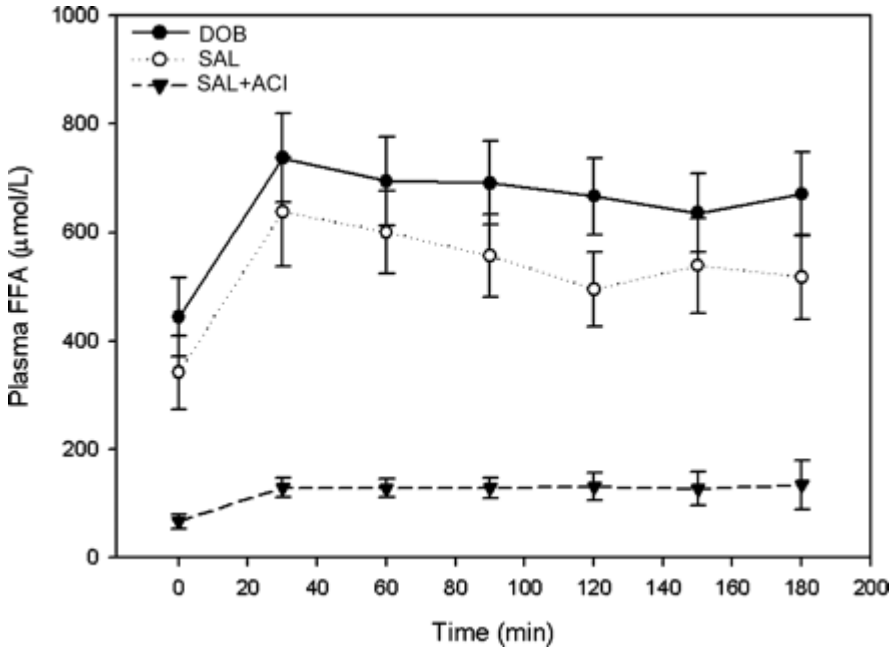
(Basically the same chart, but maybe easier to understand…)

In addition, Beta-1 stimulants may oxidize more fat than beta-2's though less glucose (shown in the next two charts respectively):



*Solid bar, DOB (beta-1); gray bar, SAL; hatched bar (beta-2), SAL+ACI. *P < 0.05 vs. baseline; #P < 0.05 vs. SAL and SAL+ACI.*

Now Plasma Free fatty acids, comparing beta-1 & 2 stimulation (it's very similar, as I already explained):



Plasma free fatty acids (FFA) during beta 1 or 2 adrenergic stimulation. Values are means ± SE.

It becomes interesting, because you can combine the information on beta 1, 2, & 3 receptors you've just read with the information you have on alpha 1 & 2 receptors discussed at the start of this chapter, and you'll have enough information to proceed into the following profiles on various compounds which stimulate those receptors. And after you've read all of the following profiles, you'll have the information on what your adreno-receptors do, and what compounds you can use to stimulate them to take advantage of that information and affect your physique for the stage or beach, and/or your performance on the field.

Let's go over what all of this means, in the simplest terms. Yeah, I know, this is the part I could have said in the beginning, but I'd rather explain it first, rather than just issuing semi-profound declarations with no support.

Here's what we just went over, regarding stimulation of the various adrenoreceptors, as relates to our goals in particular:

Alpha-2 Receptors: inhibit the release of norepinepherine.

Beta-1 Receptors: increase adipose tissue lipolysis and energy expenditure. It has also been pretty reasonably proven that the increased lipolysis is responsible for a large percentage part of the increase in energy expenditure after the beta-1 adrenergic stimulation.

Beta-2 Receptors: Increases adipose tissue lipolysis and energy expenditure. These receptors are mainly localized in skeletal muscle and not in adipocytes; it can be

reasonably concluded that stimulation of beta-2 receptors may actually exert a direct effect on energy expenditure, which is not dependant on fat oxidation.

Beta-3 Receptors: stimulate uncoupling protein 1, 2, and 3, which greatly influences mitochondrial uncoupling, leading to increased heat production and energy expenditure. Beta-3 stimulation also increases mobilization of fatty acids from triglyceride stores.

Albuterol

(Salbutamol)

This stuff is clenbuterol's shorter acting brother. Essentially, it has all of the effects of clenbuterol, but actually may be better for athletes. See, where Clen has a very long lasting effect in the body, Albuterol actually has a comparatively short active and half-life. Since we know that we can expect all of the fun fat-burning effects Clen has, when using Albuterol, let's take a look at some of the more interesting effects it's had on strength.

In one study, subjects performed 9 wk of isokinetic knee extensions twice weekly. Albuterol was given to one group, and placebo to the other, for 6 wks; groups received 16 mg.d-1 of either treatment, they were strength trained, and the results recorded. Anyway, making a long story short, the Albuterol group at both midtesting and post-testing had higher scores than the non-Albuterol group. These results give clear indications that even theraptic doses of Albuterol administered with resistance exercise may augment strength gains above and beyond those experienced without Albuterol (2).

Anecdotally, clenbuterol and ephedrine have both shown themselves capable of temporarily increasing strength, and I would bet most beta-agonists have this effect, but I don't think has been shown as conclusively as it has been with Albuterol.

There've also been more than a few complaints of Clen causing athletes to lose their wind, especially those whose sports require a higher Vo2 max than most. Albuterol, perhaps due to its short half-life, may not have this deleterious effect (1) and therefore may actually be a more effective choice for athletes, though not bodybuilders, who can benefit from Clen's long-lasting lipolytic effect.

References:

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Caffeine

Yeah, caffeine….the stuff that you get at Starbucks. Caffeine (1,3,7-trimethylxanthine) is yet another sympathomimetic, and a member of the xanthine family. Luckily for us, most of the United States (and the world) is addicted to the stuff, so the FDA will probably leave us alone on this issue. Also, it's over 99% orally bioavailable, so a cup of black coffee is still socially acceptable, and basically is as good of a delivery method as a pill is.

Caffeine will raise your body temperature a bit, and also increase your ability to focus and concentrate on simple tasks. It's got both (slight) strength (neuromuscular) enhancing effects as well as endurance enhancing abilities. Those effects are noticeable enough that caffeine, in large doses, has been banned by both the IOC and NCAA. Of course, take too much, and you'll just be jittery and anxious. Tolerance, therefore, needs to be assessed by the individual (you) ingesting it. Performance decreases seem to occur past 500mgs in a serving, though they following a bell curve. Let's go over that a bit more.

There is an inverted-U shaped curve (like a glass with the open side on the table, instead of sitting properly). Ergo, more isn't always better. Anxiety seems to set in at doses of 1,000mgs/day, and performance can suffer after 500mgs/day. 1-2mgs/kg of bodyweight seems to be optimal for strength, endurance, and cognitive ability enhancement, not to mention being within the acceptable range for stacking with ephedrine in a 1:10 (E:C) ratio.

Still, caffeine is a cheap and legal stimulant that will enhance performance…unless, like me, you ingest it via the Energy-Drink you mix with your Vodka….

Cimaterol

(Cimaterol)

Cimaterol is a stimulant, a fat burner, and similar to clenbuterol in many ways—and different in some very important ones. Both Clen and cimaterol are beta-adrenergic agonists, and thus are both anabolic as well as thermogenic (1)(5). Also, both stimulate your adrenal glands, increase your body temperature, raise your heart rate, etc., i.e. they mimic the "Fight or Flight" response quite well. Cimaterol, however, may stimulate the beta-1, 2, and 3 receptors while Clen only stimulates the beta 2 and 3 receptors. This may cause increased fat burning by cimaterol when compared with clenbuterol. Also, a far greater portion of brown adipose tissue is burned with the use of Cim over Clen, as far as I can tell.

Cimaterol stimulates both lypolisis (burning fat, the release of free fatty acids and glycerol) as well as inhibit lypogenesis (gaining fat, the incorporation of 14C into fatty acids from [14C] glucose) and may even do both more effectively than Clen, possibly making it a more potent fat burner. In addition, it stimulates protein synthesis and thus could increase fat free mass via this mechanism (1) while at the same time burning fat. After a couple of weeks, however, the anabolic effects might lessen, as one study showed that weight gain (with fat loss, ergo a PURE muscle gain concurrent with fat loss) halted after 14 days (3). Energy metabolism has been shown to be greatly increased as well (4). Cimaterol also stimulates blood flow and causes acute mobilization of nitrogen (alanine), significantly increases amino acid uptake in muscles, and mobilizes lactic acid out of muscles (2). Thus, it may not have the athletic performance (endurance and possibly speed) decreasing effects of Clen (which I've written about and alluded to previously, so I won't get into that here—it's beyond the scope of this article). This is pure speculation on my part, and Cim may still have some of the performance decreasing effects of Clen, but as other beta-andrenergic-agonists like ephedrine don't, I see no reason to think Cim does (as I haven't read any studies which indicate it does). In any case, a lot of the studies I've read and compared with those on clenbuterol seem to indicate that cimaterol is actually more potent for fat burning than Clen is.

Ok, so now you know what I have to say about cimaterol, let's see what some other people have said. Here's what Dan Duchaine had to say about cimaterol:

"Until some new synthetic beta-3 agonist is commercially available, the beta agonist of choice is still clenbuterol (although the STRONGER cimaterol is available as a research chemical in the U.S.)."

Doug Kalman, author of *Fat Attack*, has written about cimaterol and said:

"Though it's yet to be tested in humans, animal studies have determined that Cimaterol is a more powerful beta-agonist than clenbuterol, promotes protein retention and accretion, and has shown powerful anti-catabolic properties in cases of cancer or burns."

So not only is this stuff a great fat-burner, it's anti-catabolic.

Looks promising, huh? Unfortunately, it downregulates the beta receptors just as Clen does (3), so a 3 week on/1 week off type of schedule may be appropriate, as

would the addition of ketotifen after every 3 weeks (and not going off the cimaterol; so in 4 weeks on cimaterol, every 4th week you'd be adding in 2-3 mgs of ketotifen every night before you go to bed). You could also use 50mgs of benadryl instead of the ketotifen, in the same manner.

As with any new drug, caution should be taken with this stuff.

A dose of 0.15 milligram/kilogram administered subcutaneously is the standard dose in a lot of human studies, so I'd be comfortable trying that dose myself, but I'd prefer a tablet (which are also available). That's a fraction of any sort of dangerous dose, as you can see.

LD50:
1973 mg/kg (male)
and 1745 mg/kg (female)

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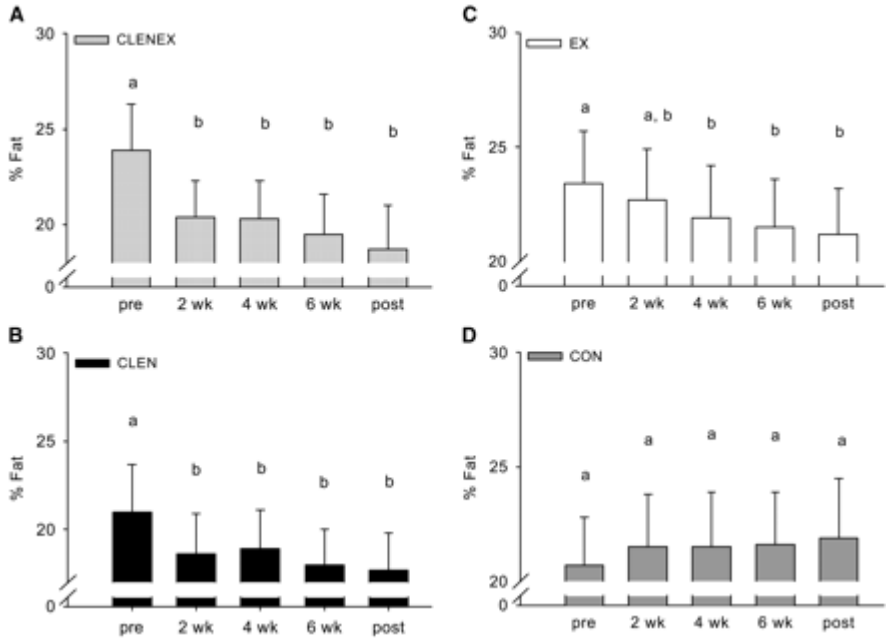
Clenbuterol

Clenbuterol (Clen) is a selective beta-2 agonist/antagonist and a bronchodilator. What this means, is that it stimulates your beta-2 receptors. Of great importance is that clenbuterol is a *selective* beta-2 agonist (because it works selectively on the beta-2-andrenergic-receptors). The thing is, clenbuterol is selective—like hitting a tack (the tack being your beta-2 receptors) with a small hammer (the hammer being the Clen): thus, it hits the beta-2 receptors selectively. Sorry if that seems repetitious, but it's very important to understand that fact before we move on. Since clenbuterol has very little beta-1 stimulating ability, it has the ability to reduce certain kinds of airway obstruction without much in the way of cardiovascular effect (more about that later), and this is why it is used as an asthma medication.

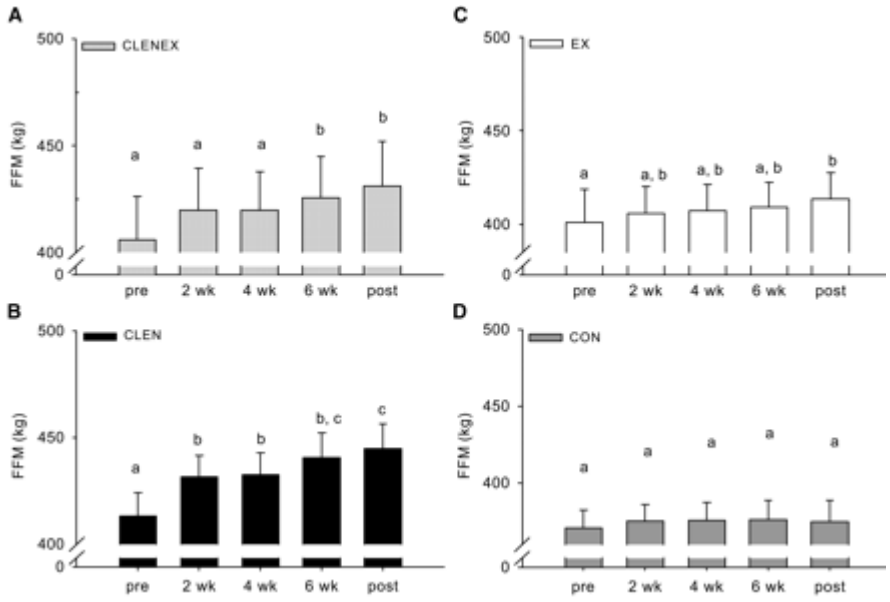
So what exactly dose a stimulant like Clen (or Ephedrine) do when it stimulates those Beta Receptors? Well, it serves to increase your body temperature a bit by increasing heat production in the mitochondria, increase your basal metabolic rate, and decrease your appetite (1). This partly explains how Beta-2 agonists directly stimulate fat cells and increase lypolysis (fat-loss) (1)(13). However, because it is a beta-2 agent, Clen can decrease insulin sensitivity (2), unfortunately.

Clen is a very effective repartitioning agent, and this is what it's most often used for in athletic circles. It will increase your ratio of fat free mass (FFM) to fat mass, by decreasing your fat and possibly increasing your FFM (3). Let's quantify that a bit:

In one study, horses given a semi-reasonable dose of Clen (slightly over 1mcg/lb x2 a day) and excercised for 20mins, 3x a week (I suppose they were Mentzer disciples) had significant decreases in % fat (-17.6%) and fat mass (-19.5%) at week 2, which was similar to Clen given to horses who didn't excercise; in contrast, the excercised group had a different FFM response, which significantly increased (+4.4%) at week 6 (3). Week 6! Here's a chart illustrating the changes in % of body fat experienced in the various test groups, followed by a chart showing the increase in Fat Free Mass experienced by the same groups:



Changes in percent body fat (%fat) over time in clenbuterol and exercise (ClenEx; A), clenbuterol only (Clen; B), exercise only (Ex; C), and control (Con; D) groups. Means with different letters (a and b) are significantly different.



Changes in fat free mass (FFM) over time in ClenEx (A), Clen (B), Ex (C), and Con (D). Means with different letters (a-c) are significantly different.

I think those charts should clearly illustrate the repartitioning effects of Clen, even though it is known that it's effects on animals are typically much more dramatic than in humans. There's still no doubt about it, in my mind, Clen will help you lose fat and gain muscle.

So Let's re-examine that first point I made: Clen vs. Clen+excercise produce roughly the same results for the first 2 weeks! This tells me that the 2 weeks on and 2 weeks off schedule for Clen dosing is far from optimal, and if you want the quasi-anabolic effect from the Clen, it'll take more than 2 weeks on (6 weeks apparently). In addition, since Clen alone is similar to Clen+excercise for those first 2 weeks, why would anyone ever use a 2 on/2 off protocol? Keep in mind that animal responses to beta-agonist/antagonists differ a bit from ours, but I'm sure that you get the idea that 2 on/2 off is not a great dosing protocol. If I were using Clen, I'd be using it for 6-12 weeks at a time if I expected to get maximum results from it, but certainly the most dramatic effects on fat loss appear to be in weeks 1-2. The reasons for the further increase in FFM around week 6 despite no changes in % fat or fat mass are not easily explained. It might be that clenbuterol can increases FFM through another nonreceptor-mediated pathway, which would be very good for us, since the anabolic effects would also be applicable in humans, despite the fact that animals often respond more dramatically to beta-agonist/antagonists, due to receptor properties. However, clenbuterol is highly lipophylic and can also enter muscle tissue (12), so that could indicate a possible mechanism of work. Maybe that would explain the significant increase in FFM of 13 kg in at 8 wks in the study? Certainly, muscle protein synthesis (MPS) must be a part of it, since Clen will increase MPS in your body (17), but it has even been speculated that the growth-promoting effect of clenbuterol may be specific to muscle and that the drug may act in a not-yet-understood manner which circumvents (!) the physiological mechanisms responsible for the control of muscle growth (13). This may mean that clenbuterol can help blast you past "sticking points" in your training by circumventing the usual mechanisms by which anabolism is experienced! Perhaps related to this is that both muscle composition and fibre size has been shown to increase with administration of Clen (14).

In any case, Clearly the results you want to reproduce for yourself are those to be gained by Clen + exercise, for 6 weeks or more. This type of dramatic anabolic effect hasn't been confirmed in human studies (8), but the anabolic effects of Clen in animal (specifically equine and rodent) studies are clearly quite astounding.

Now that I told you how great Clen is, I'll tell you how to take it. Clen has a biphastic elimination, which means that it is technically reduced in your body in 2 different stages. This isn't particularly important, as a recent study has shown that for most intents and purposes, Clen concentrations in the body decline with a ½ life (approximately) equivalent to 7-9.2hours and again up to as much as 35 hours later (4)(5). If you're really interested, though, Clen technically declines biphastically at 10 and then 36 hours. But really, in our little world, where we use ½ life to tell us when to take our next dose, who the hell is going to take Clen, then a dose 10 hours later, then a dose 36 hours later? We'll stick with the earlier 7-9 hour ½ life for dosing purposes, and take our clen every 3.5-4.5 hours that we're awake, stopping early enough to still be able to get to bed. Clen can, in some people, cause insomnia (and as with all stimulants, can cause anxiety). Recently, it's become popular to take a whopping dose of Clen in the morning, and that's it for the day. There's nothing wrong with this, I guess, but I'd rather not go through that kind of roller-coaster of sweating and shaking until it wore off.

Based on it's rate of elimination from the body, and how much is usually needed to be effective for athletes, my recommendations are the same for both men and women. You'll need to take 20mcgs upon rising, and then repeat that same dose again later in the day, and then once again in that day (if you find you can tolerate

the effects). So you'll start with 20mcgs, and then repeat that dose 2 more times that same day if you can tolerate it (classic stimulant side effects will determine this: hand shaking, sweating, etc.). You can then start increasing the dose gradually. Personally, I wouldn't work my way up to more than 200mcg/day. 60-120mcg/day is an average dose, but keep your blood pressure at (or under) 140/90, while on Clen, just to be safe. If you go over that, lower the dose. You'll also want to know your body temperature, upon rising, for the week before you start taking your Clen, and then monitor it (again, as soon as you wake up) throughout your regimen. When it returns to the level it was at before you began taking the drug, you'll need to start taking your benadryl or ketotifen, as the decrease in body temperature back to original levels indicates the thermogenic effect is beginning to decline.

Clenbuterol can also cause a downregulation in testicular androgen receptors and in pulmonary, cardiac and central nervous system beta-adrenergic receptors (6), possibly making steroids less effective (if there is androgen receptor downregulation elsewhere as well, then it's highly probable) while you are on it. It definitely makes Clen less effective if you keep taking it as time goes on. To counteract this, you can take some ketotifen every 3rd or 4th week that you remain on Clen. It's a prescription anti-histimine, so it'll make you drowsy (take before bedtime). Basically, the way this works is to reduce beta-2 receptor activity, and restore receptor function (15).

Another option, if you are worried about receptor downgrade, is taking benadryl, at around 50-100mgs/night before bed (every 3rd week or so, for that week). Benadryl is sold as an anti-histimine in the United States, and/or a sleep aid elsewhere in the world. However, beta receptors are embedded in the cell's outer phospholipid membrane. The stability of the membrane has a lot to do with the proper function of the receptors. Methylation of the phospholipids is stimulated by the binding of beta agonists to their receptors. Methylated phospholipids are foreign to the body, and when the body recognizes tham as foreign, it breaks them down with phospholipase A2. This changes the structure of the outer membrane, which results in desensitizaton of the beta receptors. On the other hand, agents that inhibit phospholipase A2 slow desensitization. Cationic ampiphylic drugs are known for their ability to inhibit phospholipase A2. Benadryl (diphenhydramine) is a cationic ampiphylic drug, ergo benadryl slows desensitization of beta receptors (i.e. upgrades them) by inhibiting phospholipase A2, which is the enzyme that breaks down methylated phospholipids. This action, in turn, keeps the phospholipid membrane stable, and thus keeps the receptors functioning properly (7). This will allow you to use Clen for much longer with the same effects. Also, since benadryl is an anti-histamine, and histamines have a direct effect on beta-adrenoreceptors (not just beta-2's but all of them), using an anti-histamine will have a direct effect on reducing beta-receptor stimulation (16), thus upregulating your beta-receptors.

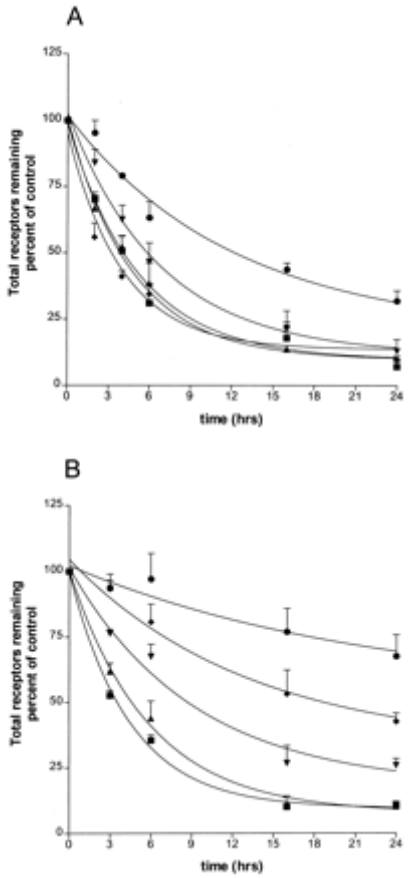
Since we're speaking about beta-receptors and upregulation here, let me address the claim that you can use ephedrine (or the ECA stack), alternating with Clen, in order to avoid receptor downgrade. I'm not sure where this rumor came from, but it is totally incorrect.

To dispel this myth, let's examine ephedrine for a second. Remember when I said that using clenbuterol to stimulate the beta-2 receptors is like hitting a tack with a hammer? Well, ephedrine is like a sledge-hammer; it hits the beta-2's and everything around them. Thats because it's not *selective*, but rather it stimulates other receptors to a significant degree as well.

Anyway, one of those receptors that ephedrine hits is the beta-2 (yeah, the same one as Clen). As you can see from the graph below (ephedrine is represented by the the solid circles), it reduced beta-2-AndrenergicReceptor (what we call, in laymen's terms, the "beta-2 receptor") levels to 32% of the control level after 24 hours. Read this again:

Ephedrine, in this study, reduces Beta-2 receptor levels to 32% of control after 24 hours.

(See, the solid circles in this graph represent ephedrine)



Granted, it's not perfect; it's not in vivo, etc., but there's no denying that ephedrine will downregulate beta-2 receptors. For this reason you will not be able to use it on the weeks in between your Clen to upgrade your receptors.

Also, bear in mind that Clen isn't great for your heart, and can cause some issues there (enlargement of ventricles, etc.). Most studies showing Clen to cause heart problems are with animals, and even though the dosing is almost similar to what humans take (in some studies it's within the range of what would be double of a large human dose). It's important to remember that animals have more beta-2 receptors and they cause certain event chains that human beta-2 receptors may not. Clen causes cardiac hypertrophy and cardiac necrosis (cell death) to some degree, in some cases. Again though, many studies showing the more significant, possibly irreversible, heart problems are with mg dosing. We humans take Clen in mcg

doses. If we want to duplicate those "theraputic" levels of Clen seen in the more conservative studies, we'd still be taking just over 1mcg/lb of bodyweight twice a day. I'd suggest a bit less than half of that dose, however, even if just to avoid cardiac complications.

Performance issues with Clen also vary. Some studies show reduced exercise (cardiovascular) performance (9), while some show that Clen can alleviate exercise induced asthma (10)! Clearly, this compound will have different effects on different people, and I suspect that a lot of it is sports specific. Many bodybuilders claim that Clen makes it difficult for them to do cardio, yet I can play a full game of rugby on it. You need to figure out how it affects you, and tailor your dose personally.

Finally, this brings me to the issue of cramps while on Clen. I don't get them. My friends don't get them. Most of us are athletes who use Clen during the season as well as the off season, and one of my friends even claims that it gives him more "wind" (cardiovascular stamina). Take on enough water every day and you should be fine. If you're really concerned, you can take some extra minerals and taurine, since Clen depletes taurine (11) as do most if not all beta-agonists. I don't take anything more than my usual vitamins and minerals.

1st Graph Reference:
ASPET Journals, Vol. 58, Issue 2, 421-430, August 2000
Kinetic Analysis of Agonist-Induced Down-Regulation of the 2-Adrenergic Receptor in BEAS-2B Cells Reveals High- and Low-Affinity Components Bruce R. Williams, Roger Barber, and Richard B. Clark

2nd set of Graph references:
J Appl Physiol 91: 2064-2070, 2001; 8750-7587/01
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DNP

*(*2,4-dinitrophenol)

DNP was first introduced to the bodybuilding world by Dan Duchaine. In the late 90s, the body building magazine *Muscle Media 2000* was offering this special deal to anyone who subscribed. If you subscribed, you got a bunch of audio cassettes containing interviews with 10 bodybuilding experts. Those cassettes included interviews with noted bodybuilding experts, and I'm sure they were very interesting. I only listened to two of them, and the other eight collected dust in a drawer somewhere in my bedroom, I'm sure. But one of the two I listened to had an interview with Dan Duchaine, which ended with him promising to tell the bodybuilders about a new substance which would revolutionize the bodybuilding world. Fast-forward a year, and there was a question in *MM2K* asking him to let the cat out of the bag.

What he did was tell us about DNP. Since then, we have a lot more experience with it, due to feedback from bodybuilders, and figured out the optimal doses and such from trial and error. The first thing that I will tell you about DNP is the first thing Mr. Duchaine said about it:

DNP is dangerous.

If you screw up using it, you may go blind, or end up in the hospital on an ice bed receiving ice-water enemas as the doctors frantically try to make the temperature of your yellow and sweaty body go back down. I'm not joking. On the positive side, very few people have died from DNP, although it remains a distinct possibility. Some DNP related fatalities have been reported (14)(23).

Outside the bodybuilding world, DNP is used to make certain dyes—break open a capsule and you'll see that the distinct color you get on your hands is nearly impossible to wash off. It can also be used as a fungicide, herbicide, and insecticide. Before that, in the early part of the 1900's it was used as an explosive.
Clearly, this is stuff you don't want to take lightly.

DNP works by uncoupling oxidative phosphorylation, which increases the body's temperature and metabolic rate (1). Synthesis of fatty acid in adipose tissue requires cooperation of mitochondrial and cytoplasmic enzymes. Mitochondria release energy from food molecules and transform energy into useable form via the production of ATP. ATP is the primary carrier of energy within your cells, and most cells die quickly in the absence of it. ATP in turn powers your muscles. What does DNP have to do with all this? DNP depletes your muscle's ATP (4), thus requiring your mitochondria to convert more energy from food molecules, and thus create more ATP to replace what was lost. This makes your body use more energy to do anything, from walking the dog to benching 315lbs. In addition, since cellular levels of all these metabolites depend on the efficiency of mitochondrial energy conversion, a mitochondrial proton leak via uncoupling proteins (UCPs) could modulate Fatty Acid synthesis (8). Paradoxically, DNP inhibits muscle contraction, even though it accelerates the ATPase activity activity of isolated myosin (13). ATPase is the enzyme that causes ATP molecules to release the energy they store, and myosin is a protein that (along with actin) is responsible for both muscular contraction and relaxation.

All of this tells me that your body will need to create more energy than usual to keep up with the demands DNP is placing on it. In addition, it will have to use more of the food you take in to produce that much-needed energy, and less of that food to create and store fat. In fact, you'll start using stored fat as energy to attenuate the energy deficit DNP creates. I've seen studies on animals where a +60% increase in metabolic rate is achieved with DNP use (9), although I feel that in humans, the rate may actually be higher. My speculation is that proper DNP use in humans can net a 40-80% rise in BMR (basal metabolic rate). This is all from hypermetabolism, or the increase in metabolism, or your body's need to use more energy to perform tasks.

So what happens when your body requires more energy to do today the same things it did yesterday? You lose more fat today than you did yesterday, in this case a lot more. What else? You get tired more quickly as your body struggles to convert food into energy. Your endurance will suffer. Your staying power in the last few reps of a set will vanish. Your ability to complete the same amount of sets as you did yesterday, with the same intensity and weights, will suffer. But that won't seem like much of a big deal to you at the time, because you probably won't get much of a "pump" at all from the workouts you are completing because DNP reduces the amount of available glycogen in your muscles (4)(5)(6). DNP will also increase your rate of ventilation, as your lungs try to get oxygen into your muscles (16). Your blood will be moving a bit slower than usual, as DNP will increase its viscosity (thickness). Basically, it will increase your body's need for oxygen as well as your blood viscosity (3), and it nearly doubles the rate of oxygen consumption in muscles (11). Thus, your body will have to work much harder to oxygenate your blood, and then transport it to working muscles. Cardiac output will then increase proportion to this new rate of oxygen consumption (15).

If you are an athlete, you'll play like garbage on DNP because of all that stuff I just mentioned. For these reasons, I see it as very useful for a bodybuilder (who only has aesthetics to be worried about, not functional ability or performance), but not very useful for an athlete. If (and this is a big if), you are badly out of shape and fat before you have training camp for your sport's preseason, then I suppose you can try to use this stuff to lose some fast weight. But in all honesty, a 20 day cycle of DNP no less than a month away from training camp is all I'd risk. You'll lose some weight, and only have to keep it off for a month until training camp starts. I really want to stress, though, that this stuff is an exceptionally poor choice for use by an athlete. And remember that part I told you about earlier—DNP inhibiting muscle contraction? Yeah, that'll make you weaker, also.

Speaking about getting weaker, DNP will lower thyroid (T3) and thyroid stimulating hormone levels (7). Lower thyroid levels are positively correlated with lethargy (tiredness) and muscle weakness. So it's as fair to say that just as DNP makes you lose fat via several mechanisms, it will make you feel like garbage through several mechanisms. Don't get me wrong, not everyone feels like total garbage on DNP, but it's by far the most common side effect I've heard of. Err…Next to bad breath. No, really. Oh, and I almost forgot, yellow(ish?) sweat and body odor that's brutal. Then there's this weird taste in your mouth. On the bright side, we're talking about fat loss of almost a half a kilogram per day (1lb/day), when DNP is properly used.

One of the most worrying side effects of DNP use is its ability to cause vision problems (19)(20). Realistically, you should be alright if you keep your doses and duration of use reasonable.

A lot of the side effects (at least the more dangerous ones, including the ones associated with vision problems) need to be addressed before I tell you how much DNP you can use, and for how long. First of all, you will want to make sure you are taking in enough carbs. Yeah, that's right, a ketogenic diet (that's a diet with no carbs, essentially) is too dangerous to consider with DNP use. In fact, I recommend taking in a good amount of carbs after your workouts, at least 1-2g/kg of bodyweight. Glucose metabolism is enhanced in less than a week (21), and I'm wary of depriving your body of carbs while using DNP. All of these extra carbs are going to make you sweat more, as your body literally burns them up. I'd still say you can take in as many carbs as you want, and you'll want a lot (carb-cravings are a side effect of DNP use).

The other thing you want to use is pyruvate, which at the very least will have ocularprotective properties (yes, I made that word up, and it means something that protects your eyes) (22). Pyruvate will also have some other cool effects on your body's energy production ability, but here, we're primarily concerned with not developing cataracts or floaters in our vision.

Thankfully, DNP is not particularly hard on your heart, blood pressure, or liver. The only reason you'll experience increases in cardiac output is as a response to the increased ventilation DNP will cause while you are exerting any kind of muscular force, and even then it isn't particularly dangerous (3)(6)(11)(15). Most DNP users feel this effect only vaguely, certainly nothing compared to what would be experienced with use of ephedrine or maybe even caffeine. So we're really only dealing with the lowering of thyroid values and the possible eyesight problems. Oh, and that pesky "death" thing.

So far, we know we need to keep some carbs in our body, and take some pyruvate. I can only assume you will also be taking a multivitamin/mineral while using DNP, just to keep all of your bases covered. There's also some good reasons to take an energy supplement with DNP, since it will sap energy out of you. I recommend something in the morning, and pre-workout, as a minimal insurance against feeling too tired all the time. Also, you want to take some T3 with your DNP, because of DNP's aforementioned ability to lower conversion of T4 into T3. 50-100mcgs/day should suffice. Taurine and potassium are popular additions to a DNP cycle for many experienced users. They may not help, but if cramping becomes an issue, then they could. You'd never even consider using DNP and not taking in enough water, right? I'd suggest water intake be kept obscenely high, and as close to two gallons per day as you can get.

So now that you know all about DNP, and how to avoid most of the negative side effects, I'll tell you how much to take. From my research, I'd say 2mgs/kg-5mgs/kg is optimal. If I were going to use this stuff personally, I'd stay on the low end of that, but I am aware that the "Underground Standard" is 600mgs/day. That's still a reasonably safe dose, for most. I'll also say that were I to personally use DNP, I would limit it's use to less than 3 weeks….20 days is the longest I'm comfortable recommending.

Even at a high(ish) dose, this stuff is very cheap. The underground lab most popular for this stuff sells it for around a dollar per 200mg pill, so you're looking at $20-60 to lose 10-20lbs of fat. It's a bargain, by any standard, if you do it properly and safely.

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Ephedrine

(Ephedrine Hydrochloride)

When I started writing this book, ephedrine was one of my favorite legal stimulants/fatburners. Halfway through finishing, ephedrine (Ephedra, actually) became one of my favorite outlawed fatburners; now it's my favorite legal one again. Who knows what it will be by the time you have this book in your hands? Tiki Barber, running back for the NY Giants once speculated that while it was legal, 80% of the players in the NFL used ephedrine. For my part, I'll speculate that the number using it will pick right back up now that it's legal again, and that this time, NFL players will be stocking up just in case it goes off the market again.

Ephedrine is a stimulant that belongs to the sympathomimetics family. It's both an alpha and beta adrenergenic, as opposed to Clen, which only works on your beta receptors. Ephedrine releases norepinephrine, which is basically very similar to adrenaline, your fight or flight hormone, which is an endogenous alpha agonist. First, when you take ephedrine, your body temperature will rise. This is a good thing, as it indicates more fuel being burned for energy. That'll help you shed some of your subcutaneous body fat stores, and this is basically ephedrine's main use in athletics.

Its other use is for it's stimulant properties. The stimulant effect of ephedrine will increase the contractile strength of skeletal muscle; for this reason ephedrine is commonly used by powerlifters and Olympic lifters. It also helps many people focus, similar to caffeine, with which many choose to take their ephedrine. The touted stack of ephedrine (25-50mg), caffeine (200-300mg) and aspirin (100mg) is shown to be extremely synergistic for fat loss. In this combination, the ephedrine and caffeine both act as notable thermogenic stimulants, while the added aspirin helps to inhibit lipogenesis by extending the duration of their effect and blocking the incorporation of acetate into fatty acids. The best synergy is when the ephedrine/caffeine ratio is actually 1:10.

Finally, Ephedrine also seems to slow gastric emptying, which is why it is very popular as an appetite suppressant, and was included in many diet pill preparations until it was pulled from the market.

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Yohimbine

This a naturally occurring alpha-2 antagonist. Yohimbine promotes sympathetic activity by central as well as peripheral mechanisms, however, in moderately high doses does not usually raise heart rate, increase blood pressure, or induce anxiety.

When you take this stuff prior to exercise, it boosts lipolysis for the duration of, and following, your workout; pre-exercise administration of yohimbine can also lower the respiratory quotient during and following exercise, thus promoting fat loss. It may also be synergistic with Caffeine.

Dan Duchaine postulated that you could inject tiny amounts of the prescription yohimbe into lower body fat stores (where alpha receptors are abundant) to produce localized fat loss.

Another more secondary mechanism by which yohimbine can induce lipolysis (still via the adrenergic system) is by increasing peripheral blood flow, which would thus burn more fat.

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Chapter 12

Thyroid Drugs

(And Thyroid Function)

Before we get into the specifics of thyroid medications, I feel that it's only responsible to explain what your thyroid is and what it does before we start talking about manipulating it. After you read this chapter, you will understand all about your thyroid, and how to manipulate thyroid hormones to optimize your metabolic rate.

The first thing we're going to have to do is get a digital thermometer so we can check our basal body temperature when we wake up. A lot of people say they can use a mercury one, and it's just as good (or better) than a digital, but I don't like the room for human error that they allow (misreading, misjudging where the mercury level is, etc.). It is of course, up to you, as to whether saving the $5 from buying a mercury thermometer over a digital is worth it. But since you spent a lot more than that on this book, I doubt it is. I will leave the choice entirely up to you as to whether you purchase a thermometer for rectal or oral use. I monitored my morning body temp (called basal body temperature or BBT, from here on), a few years ago when I was messing around with thyroid hormones a lot, and found it to be a very valuable tool to give me some kind of indicator as to how my thyroid was functioning. I went the oral route, thank you.

Anyway, what you'll need to do is take your temperature every morning, before you get up out of bed, for a week without being on any medications (steroids, etc…) or thermogenics (Clen, ephedra, etc.). This will give you a score to work with to tell how much work you need to do in order to bring up your "average" score to "optimal."

So what score are you striving for? Ideally you're looking for a score between 97.7F and 98.3F, with the latter being "on the money" ideal. I'm willing to bet that yours is slightly or moderately lower than that.

So what do we do? Well, we want to raise it, ideally. This is relatively easy given the arsenal of compounds we have to work with. You could take supplemental Synthroid, which is a T4 medication. I don't like going this route, and I'll tell you why. Your body needs to convert T4 into T3. T4 is converted peripherally into T3 via the deiodinase enzyme. The T3 could then raise your body temperature to the hypothetical "ideal" of 98.3. And if there is something insufficient or deficient with your T4-T3 conversion process, then you are taking a bunch of synthroid, which won't be turned into T3. It's simply too haphazard for my liking to take a drug and hope your body does what you want it to do with it. I don't like leaving things to chance.

So what we're going to have to do is buy a whole bunch of tricana, or a bit of Cytomel. I'm going to focus on Cytomel, since it's what I use, and it's currently very easy to get via several different Internet pharmacies and research companies.

Now before you start popping Cytomel like it's pez until your BBT reaches 98.3, I'm going to explain a bit about your thyroid.

Your thyroid is a very vascular structure with two lobes connected by a broad isthmus. It's located around your larynx, on both sides and in front of your trachea. It secretes 3 hormones, only 2 of which will be of concern right now. The first is thyroxine (traiodothyronine) or T4; its molecule contains 4 iodine atoms. The second is T3 also called triiodothyronine (yes, it's the same word as for T4 with the exception of an "i" instead of an "a", and yes, you guessed it, there are 3 iodine atoms in T3).

Both of these hormones regulate the metabolism of carbohydrates, fats, and proteins. They increase the rate at which cells release energy from carbs, enhance protein synthesis, and mobilize lipids (fats).

T3 is the more physiologically active hormone, and as I already told you, T4 is converted into T3. Eighty Percent of your body's T3 comes from this conversion. Thyroid stimulating hormone (TSH) (produced by the pituitary gland) controls the secretion of T4 through release of thyrotropin releasing hormone (TRH), which is produced in the hypothalamus. Another hormone, T2, is then produced from T3.

T2 acts on the mitochondria directly and increases the rate of mitochondrial respiration, with a consequent increase in ATP production (similar to what DNP does), and has similar beneficial effects on your cells' mitochondria (the cells' powerhouse). If you have a low thyroid level, you will probably be tired and listless. On the other hand, a high thyroid level can make you energetic. Now hopefully you'll start to understand why I recommend optimizing your thyroid level. I mean, it's cheap (a couple of months of thyroid meds will run you under $100), and it's effective. You get better macronutrient assimilation, a nice fat-burning effect and higher energy levels. You also get a possible synergy with Clen or ephedrine if you should choose to run them with your T3. Using T3 will upregulate the beta-2 adrenergic receptor in adipose tissue (fat). Clearly there is a synergy here between clen, beta-drugs and T3. One research company has even begun selling them pre-mixed!

As you suspected, there's a catch. Remember the negative feedback loop that your body has for the HPTA? Well, it has one for thyroid hormones too. When your T3 levels go up, your TSH secretion is suppressed, so there will be a short lag time from when you stop taking thyroid meds until your body recovers. I wouldn't be too concerned with this, as you can schedule it to happen during the winter months when you'll be covered up anyway. There have been studies where patients on thyroid medication for 30+ years have quickly recovered their normal thyroid function upon cessation of thyroid hormone therapy. And more recently, several fitness competitors have gone off thyroid meds after several years on them and were able to recover fairly quickly.

Ok, so now we know where we are (because we've checked BBT for the last week) and where we want to be (98.3F), and now we even know what the thyroid gland is. So, now can you start popping Cytomel like pez? No, not yet. What you are going to do is start taking 20mcg of Cytomel per day for a week, and upping the dose by 10mcg/week until your BBT reaches 98.0-98.1. Try not to go over 100mcgs, though. Then you can start adding in other thermogenics if you are trying to get cut or if you are in a pre-contest phase, or you can simply continue adding Cytomel until your

BBT reaches 98.3. Without further ado, here's the profiles on all currently available thyroid medications!

Cytomel

(Liothyrine Sodium)

This drug is a synthetic T3 hormone. As you may already know, most natural T3 is not produced directly by your thyroid gland, but rather is converted from the T4 thyroid hormone (8).

Natural T3 is a regulator of the oxidative metabolism of energy producing substrates (food or stored substrates like fat, muscle, and glycogen) by the mitochondria. The mitochondria, as you will recall from your high school biology class, are usually referred to as the "cells' powerhouses" because they produce ATP. Taking Cytomel (supplemental T3) greatly increases the uptake of nutrients into the mitochondria and their oxidation rate (i.e. the rate at which they are burned for energy), by increasing the activities of the enzymes involved in the oxidative metabolic pathway. Everything is working harder, in other words, and more fuel is needed to supplement this increased work rate. Therefore, as you can guess, taking supplemental Cytomel will increase your body's energy demands. And if you are in a hypocaloric state, you will begin burning even more fat, primarily due to an increase in ATP. This increased ATP causes an increase in overall metabolic activity (8)(9). This is exactly what we want, and is why we would be taking thyroid hormones like Cytomel in the first place. If you aren't taking anabolic steroids with your Cytomel, however, your body may start to eat away muscle to provide energy for you to function. Remember mitochondria/ATP aren't very picky, but they are very efficient. What I mean by this is that they will use whatever is on hand to generate energy for your body to continue functioning—fat, protein, glucose—it doesn't matter to ATP, as long as there's something to give them energy. Taking this drug will increase their need to find something to burn to create this energy. Ergo, if we aren't taking anabolic steroids while taking our T3, we may lose too much muscle, especially while dieting.

Thus you can see that there are many advantages to using Cytomel to optimize your metabolic rate. It will also increase your body's ability to synthesize protein, but from what I've seen personally, it acts as a catabolic when it isn't administered with anabolic steroids. It is often the last thing added into a precontest diet, as it has a reputation for getting rid of the last few percentages of body fat, the "sticky fat" as it's called in bodybuilding, the fat that just doesn't want to leave you in the last few weeks of dieting. I think this is a poor use for this drug, and that it should be the first thing added into a diet to lose fat, as it will optimize your metabolic rate, which should be done at the outset of a diet, not after the calorie restriction has diminished your thyroid output and you are adding it in simply to replace what was lost.

Unfortunately, in all of the studies I've seen, T3 also increased growth hormone production (5)(6). As we all know, GH is also a strongly lipolytic compound, and this is another mechanism by which T3 may exert its effects, although I suspect this would only be a small percentage of it's overall effects. This being the case, it has always been somewhat problematic to me to note that when GH and T3 are used together, the increased nitrogen retention normally found with GH use is negated. (7). If you were only using T3 and GH this may be a problem, but as I've already stated, you are going to need some anabolic agents if you are using T3. And as you have read previously, I recommend the veritable anabolic/lipolytic orgy of insulin, T3, Anabolic Steroids and GH for 100% maximum results in minimal time.

On the brighter side, and of special note to dieters, administration of T3 has been shown to upregulate the beta 2 receptors in fat tissue. As you know clenbuterol and similar compounds downregulate this receptor, so using T3 with your Clen will help stave off or reverse this downregulation (1)(2)(3)(4). I would still recommend taking your benadryl every third week, though.

Finally, I would like to address the issue of recovery of your natural thyroid function after you stop taking Cytomel. The horror stories of people on permanent thyroid replacement just aren't true. I remember a few years ago, the rumor was circulating that the current Ms.Fitness had permanently shut off her thyroid gland, and was now fat and on thyroid hormone permanently. This is just another horror story based in nothing but conjecture and rumor. The studies I've looked at have shown people recovering their thyroid hormone relatively quickly (within months, at most) after going off of several YEARS (!) of thyroid replacement therapy (10)(11). I speculate that you can optimize your metabolic rate with Cytomel for 9-10 months a year, and just normalize yourself for 2-3 months (perhaps the winter, when you are mostly covered up), and then go right back on. Some people in the studies I read were on T3 for 30 years and recovered their natural thyroid function in short order. I think we can safely spend an athletic career buy anabolic steroid online using Cytomel 9-10 months out of the year, and just taking those few months off to normalize ourselves. Is this aggressive? Yes.
Unsafe? No.

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Synthroid

(Levothyroxine Sodium)

Synthroid is the less powerful of the two most popular thyroid replacement drugs on the market. It is synthetic T4, and is actually the more prescribed thyroid medication in America, but the lesser used of the thyroid drugs which are popular with bodybuilders. If you have naturally low T3 levels, then you may be able to supplement with T4, and have it convert to T3 via your body's natural metabolic pathways, which involves the deiodinase enzyme. However, There have been a number of studies that have shown that during reduced caloric intake, and/or when carbohydrate intake is reduced dramatically, levels of deiodinase decline, hindering the conversion of T4 to the physiologically active T3(1). So, if you are dieting (which would necessarily mean you have a reduced caloric intake and/or reduced carbohydrate levels), then you have less deiodinase enzyme (still with me?) and thus, that T4 you are taking in hopes of getting it to convert to T3, is not getting converted. This is not what we want, clearly, and is why most pre-contest dieters include Cytomel in their drug regimen instead of Synthroid. In fact, Synthroid may be particularly bad for dieters on Cyclic Ketogenic Diets.

When you earn your living off of your body, as many fitness models, models, and bodybuilders do, it's just too haphazard to trust Synthroid. This is especially true if you are not monitoring your Basal Body Temperature or (preferably) shelling out the money for a thyroid function test every month.

As compared to Cytomel, Synthroid requires significantly higher doses to be effective. Most bodybuilders don't exceed 100mcgs of Cytomel during a precontest phase of dieting, but with Synthroid the doses climb significantly higher to achieve the same results. From interviews I've done with bodybuilders who have used Synthroid, I've heard of it being used at up to 300mcgs/day. When you compare that to the mere 25-100mcgs/day of Cytomel that bodybuilders are typically using, we have another strike against Synthroid. It isn't really economically feasible to do that much Synthroid and remain cost effective, at least when compared with Cytomel. To give you a fair estimate, you could run an effective dose of both Cytomel and Clenbuterol for the same price as an effective dose of Synthroid.

My advice? Use it if you have to, but only if that's the case, and you can't get Cytomel or Tricana. It works, and will eventually get you to the desired body temperature for optimal fat burning, but it just isn't as elegant as the less suppressive Tricana, or the more effective Cytomel.

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Triacana

(3,5,3'-triiodothyroacetic acid)
Tiratricol

Triacana is a naturally occurring thyroid product containing the substance known as Tiratricol. Tiratricol is a metabolite of the iodiferous thyroid hormone, L-triiodthyronine (T3) (1), and is available at health-food stores, sold over the Internet, and is quite popular in Europe. The drug is marketed under the brand names Triax, Tri-Cuts, and Triacana.

In order to provide you with a sound understanding of Triacana, I'll first briefly remind you of the function of the two main hormones produced by the Thyroid gland. The two main hormones produced by the thyroid are L-triiodthyronine (T3), and L-thyroxine (T4). T4 is the hormone which the thyroid produces the lions share of, and is converted by a deiodinase enzyme into what is known as T3 (2).

When a person is involved in a calorie-restricted diet, the body produces less deiodinase enzyme, and hence produces less T3. When our bodies lack the effects of T3 (the more potent of the two hormones) our BMR decreases. An abundance of T4 is still present, however, T4 simply isn't potent enough to maintain the high metabolic rate we seek while trying to burn fat. When our metabolism is slower, fewer calories are burned, and our dieting struggles to remain productive. This is all described as the infamous "negative feedback loop."

Now, with a bit more information, you can begin to draw the connection between fat loss, and the use of Triacana (tiratricol).

Triacana has held a solid reputation since the 1970's among athletes and bodybuilders for being a strong fat-burning drug. While it can aid lipolysis, the effects are extremely mild when compared to stronger thyroid hormones, namely T4 and T3. One exception would be Triacana's higher thermogenic potency in brown adipocytes (3). The misconception that many people possess regarding Tiratricol is that the effects are harmless. Simply put, this is untrue. Tiratricol can significantly suppress Thyroid Stimulating Hormone (4). Although the effects are mild when compared to those caused by T3, they're still present. Thyroid recovery generally takes up to 6 weeks; however, extreme cases have shown to take up to 5months to fully recover from the TSH suppression (4). Thankfully, TSH recovery is very quick (5), and there has yet to be a documented case of the Thyroid being permanently shut down from the use of Tiratricol.

Common dosages of this product range from 10-14 tablets per day. Generally, two 0.35 mg tablets are taken on the first day of intake and with two tablets added each successive day until 10-14 tablets/day are taken. The half-life time of tiratricol is 5-7 hours, so Triacana should be taken 3-4 times daily (7)(8). Doing so will allow a constant amount of the substance in the blood, so the effects are continual. There are also many athletes who prefer to combine Triacana with Clenbuterol, or another type of thermogenic. Popular choices include a stack of Ephedrine, Caffeine, and Aspirin/Yohimbine. Many feel that the addition of one of these choices substantially increases the effects of Triacana, and provide better fat loss results when combined. Additionally, by adding a stimulant, it is easier to sustain hunger pains which can

occur with the use of Triacana. Something of additional note, is the common inclusion of Triacana while exogenous Growth Hormone is being administered. This is performed in order to meet the body's increased requirement for thyroid hormone. Additionally, Triacana is superior to T3 the treatment of thyroid hormone resistance (9), and is often favoured for treating Hyperthyroidism (10).

Regarding duration of application, the range of opinions varies by a large amount. Athletes have taken Triacana from one week, ranging up to many months. The reason behind most people straying from long duration use, is the fear of their thyroid shutting down permanently. As mentioned above, the likelihood of this happening is slim to none, however, it is still a possibility many consider. In fact, Triacana is often considered more TSH suppressive than the more potent T4 (11). A suggested duration for moderate usage would be up to 12 weeks; however, there is little evidence that running longer cycles have any different effects versus shorter durations. Something to keep in mind, is that you shouldn't slowly decrease dosages in fear of a sudden rebound effect. By doing so, you only prolong the amount of time until your thyroid can recover. Stopping abruptly allows your thyroid to begin recovery right away.

If you're interested in making the commitment that taking thyroid hormones/derivatives requires, and the risks involved, Triacana isn't your best choice. The side effects are very similar to that of T3, yet lacking the potency by a substantial amount. In fact, it has been observed by some that the effects were non existent, even at a TSH-suppressive dose of 3mg split throughout the day (12).This is a substantial reason as to why the drug's popularity and usage by the bodybuilding and sport communities has dropped immensely in past years, as it's quite inferior when compared to T3.

One hundred tablets are packaged in a box containing four push-through strips of 25 tablets each. The tablets are white and have neither an imprint nor a break indentation. The price on the black market is usually $60 - 80 per box.

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Recovering Thyroid Function

Now that I told you how to get your metabolism to the optimal level, I'll tell you how to quickly recover your natural thyroid function in the months following your self imposed thyroid adjustment. There are many supplements available which will help, but I am going to concentrate on the three which I feel will help you recover your thyroid hormones to baseline levels. Coleus forskohlii is the first one I'll tell you about. Basically this stuff stimulates your thyroid gland to increase it's output (1). Needless to say, this is good. The second supplement of importance here is Guggulsterones. This is the extract from the tree resin of Commiphora Mukul. In essence, it stimulates the uptake of iodine and also the output of thyroid hormones (1)(2)(3). As a nice added benefit, guggul lipids may have some kind of benefits to your lipid profile.

And the final supplement I'm going to tell you about is Tyrosine (yeah, the amino acid). Tyrosine is simply a precursor to the thyroid hormone T3 (5)(6). You want to have this in your body when you are trying to bring your thyroid hormones back to normal.

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GH / IGF / Insulin

Chapter 13

GH / IGF / Insulin

As you'll see from the following profiles, it's almost counterproductive to talk about one of these compounds without entering into secondary conversation about the others.

I've also decided to place these profiles directly after the ones concerning Fat Burning, but more specifically, the ones about thyroid function and thyroid medications, because it's my hope that if you've read the book in order, you'll find that it's been arranged to build a base of knowledge in a certain order, so the next chapters are more understandable, and the previous chapters help you to grasp more fully the ones to come.

Human Growth Hormone

(Somatotropin)

Human growth hormone is produced in the body by the pituitary gland. Before this happens, Growth Hormone Releasing Hormone (GHRH) and Somatostatin (SST) are released by the hypothalamus, and that determines whether more or less GH is produced by the pituitary.(1) Many factors influence the release of GH, however, including nutrition and exercise (6)(7).

Once it is released, Growth Hormone (GH), which is also called Somatotropin (STH) has many functions in the human body. GH is a protein that stimulates the body cells to both increase in size, as well as undergo more rapid cell division than usual. In addition, it enhances the movement of amino acids through cell membranes and also increases the rate at which these cells convert these molecules into proteins. Clearly, you can see that this would amount to an anabolic (muscle building) effect in the human body. GH also has the ability to cause cells to decrease the normal rate at which they utilize carbohydrates, and simultaneously increase the rate at which they use fats.(1) Fat loss and lean mass increases with GH have been found at a dose as low as . 0.028 iu/kg/daily for 24 weeks(4)…however, in my estimation, that would be insufficient for a bodybuilder trying to gain muscle. Lets use .028iu/kg as a working number; thats 2.8iu for a 100kg (220lbs) bodybuilder. That's certainly not unreasonable, and I would say that that dose to 2x that dose is the range most bodybuilders and athletes are finding their best results with. Also, that length of time used in the study I just mentioned (24 weeks) is very typical of GH use, and in conversations with my friends who have used this compound, have told me that they experience consistent results starting well after the 2-month-mark, and they tend to either run this stuff for 6 months at a time, or year-round (if they have sufficient funds). One of my friends is able to consistently retain a shredded 6-7% body fat all year round with the assistance of GH, whether he is on steroids or off. He also has noted that his cardio (fast walking, for an hour a day) was much easier while on GH than when off, and certainly the research I've done would support his claim that submaximal aerobic ability is improved with GH use (5) (15).

How anabolic is this stuff? Well, even endurance athletes at rest (!) were observed in one study to be in an anabolic state (8). Yeah…so you can basically run marathons and take this stuff, and still build some muscle. Pretty impressive, right?

Growth Hormone is usually secreted in rhythmic pulses while you are sleeping, as two peptides, GHRH and Somatostatin (SST) are alternately released. As you can guess, GHRH (Growth Hormone Releasing Hormone) is the one responsible for the Release of Growth Hormone (And who said scientists have funny ways for naming things…?).(1)

Growth hormone also has the ability to stimulate the production (or reproduction, in the case of an injury) of cartilage. This, however, requires the presence of a mediator substance, Somatomedin (IGF), which is released from the liver in response to GH…and the IGF, in turn, actually promotes the growth of cartilage.(1)

Although it requires IGF to actually grow new cartilage, GH is directly able to stimulate the elongation of bone tissue.(1), and GH has also been shown to elicit a

positive effects on erythropoeisis (9), which is great for both anabolism as well as endurance.

Remember the negative feedback loop I always tell you about? Well, of course, your body has one which can stop the secretion of GH, and it involves IGF. When your liver receives secretes IGF-1, it sends a message to both your Hypothalamus as well as your Pituitary to stop producing GH. (1)

As you have probably guessed by now, your body produces the majority of it's GH during your early years, when you are experiencing growth spurts. As you get older, however, you just produce less of this stuff, and it's effects are much less pronounced. This was the driving force behind the (always weird) life-extension crowd embracing GH in the early 90's. And, as usual,. The driving force behind the athletic world embracing GH was Dan Duchaine, which I'm sure comes as no surprise to many. He first wrote a teaser about it in his Underground Steroid Handbook, and then wrote extensively about it for the next couple of decades. At that time, Grorm, was being used. This nasty stuff was GH extracted from (are you ready?): the pituitary of dead bodies. That's real "Dawn of the Dead" style science, in my opinion. I guess it's an advance from a couple of centuries ago, when Descartes (the "I think therefore I am" guy) declared the pituitary the part of the human body where the soul resides. Anyway, back to the cadaver-thing…the GH extracted from the cadavers were found to be able to (in rare cases) carry a rare brain disease. This of course, infected the kids who received the infected GH. The use of GH from cadavers was subsequently discontinued. Back then (the 80's) there was also a fake version of some purple looking GH going around (it was HCG I believe, mixed with B-12) called "Rhesus Monkey Growth Hormone"…which is pretty funny, looking back on it. To this day, however, if you get fake GH, it's still probably HCG, since both come presented as a powder and bacterioistatic water you need to use to reconstitute it (and then it needs to be refrigerated).

Even if you are using the non-cadaver-derived stuff (and at this point, I'm 100% sure that there's none of the old Grorm left on shelves anywhere), it's possible that you experience some side effects like carpal tunnel syndrome, acromegaly (a thickening or growth of bones, most noticeable in the feet, hands, and forehead), and enlarged organs. Gynocomastia is also possible as a side effect of GH use, as well as Fluid retention(16) (the later being initially pointed out to me by a female colleague who had a pre-contest bodybuilder using GH as part of his contest prep).

Now for some really interesting stuff:

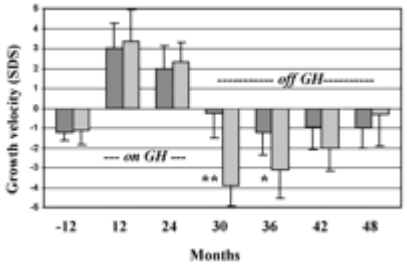
Although GH can easily produce very nice, high quality weight and muscle gains, it's a very poor compound for inducing strength gains(2)(3)(4). That's very counterintuitive, and certainly many strength athletes have experienced great results in both strength as well as muscle size and fatloss from GH. Generally, many studies have focused on GH vs. GH and exercise, and without the exercise LBM increases but not usually maximum voluntary strength output. It should also be noted that most athletes utilizing GH are using it in a "cocktail" with (at least) anabolic steroids, and usually with IGF, thyroid meds, and other goodies such as an Aromatase Inhibitor.

Lets discuss exactly why this is.

Most people who are taking the plunge into GH use have reached a dead end with their use of anabolics, and need to push through that wall. I'm sure you've heard

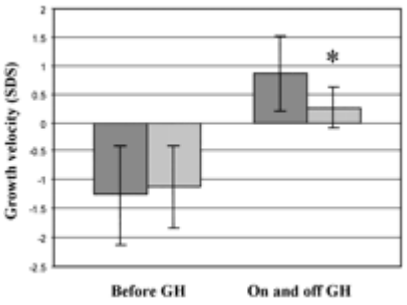
about the synergistic combination of using GH along with Anabolic Steroids, IGF, insulin and T3 (* usually synthroid, a thyroid medication). The reason is that when these hormones are used correctly together, they'll produce a large amount of synergy…the insulin is able to shuttle nutrients into your muscle, the thyroid hormone increases your fat-burning capability, the IGF will cause muscle growth as well as helping to grow new cartilage (thus preventing injury), and the anabolic steroids like testosterone, specifically (in addition to being anabolic) can increase IGF-1, in muscle tissue(11), and maybe even increase your body's ability to use it. Also, usually, an increased amount of IGF usually tells your body to stop producing GH…but testosterone actually blunts this part of the Negative FeedBack Loop (12)! And the addition of an Aromatase Inhibitor will also stop conversion of testosterone into estrogen; estrogen reduces IGF levels.(13)(14) Finally, the GH does …well everything I just spent the last few pages telling you about!
Thus, IGF, Testosterone (and of course other steroids), Insulin, thyroid meds, and GH will all combine to produce a pretty damned effective fat-burning and muscle building cycle! You know what else? GH is virtually undetectable on any sort of currently used drug-screening tests. GH, Insulin, Thyroid meds, and IGF may also be used pretty safely by those who may be subject to drug screening tests, or as a non-HPTA suppressive "bridge" between cycles.

Finally, I'll tell you how I'd take GH, personally. There was a study done on continuous GH use vs. every other day injections (ED vs. EOD for the sake of brevity), with a equal total weekly dose. Although it's counterintuitive, every other day injections produced better total growth in the kids in this (2 and 4 year long) study. Take a look at these graphs:



*Growth velocity of children treated with alternate day GH (the darker bars) or with a daily GH regimen before, during, and 2 yr after stopping therapy. Values are the mean ± SD. *, P < 0.05; **, P < 0.01.*(10)

Here's another:



Pretreatment and cumulative 4-yr growth velocity of children treated with alternate

*day GH (the darker bars) or with a daily GH regimen. Values are the mean ± SD. *, P < 0.00* (10)

Shooting GH every other day more accurately replicates the pulsile frequency of GH, and thus gave better results for growth (height) deficient children… GH pulsatility is necessary for proper function of the GH receptor.(10) Dosing in the EOD nature reduces incidence of any sort of withdrawal problems associated with normal GH use, including regression or retardation of growth after cessation of therapy.

Therefore, I feel very comfortable speculating that the use of GH in this manner, which more closely simulates the natural secretion pattern of it, allows the GH receptors and the rest of the body to to more efficiently recover from it, and this will result in much more muscle growth over time (although height was examined in the previous study). My recommendations, therefore are 2 shots per day of .028iu/kg of bodyweight, taken every other day, for a minimum of 3months, and preferably for 2-3x that long….and preferably with the other synergistic compounds we've just taken a look at.

You should be paying between $1.75-2.75 per IU of GH, and since you are going to (necessarily) be buying it in bulk, you should be paying closer to the lower end of that.

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IGF-1

(Insulin Like Growth Factor 1 a.k.a. somatomedin C)

IGF1 is a polypeptide hormone about the same size as insulin, or 70 amino acids; it's a member of the "super family." No, this is not the same family Clark Kent belongs to, but rather it's a family of substances identified as growth factors. It's a highly anabolic hormone released primarily in the liver (but also in peripheral tissues) with the stimulus of Growth Hormone (GH). It is responsible for much of the anabolic activity of GH, including nitrogen retention and protein synthesis (12) as well as muscle cell hyperplasia (increase in number of muscle cells), as well as mitogenesis (the growth of new muscle fibers). It can also induce skeletal muscle hypertrophy by activating the phosphatidylinositol 3-kinase (PI3K)-Akt pathway(9). In fact, IGF-1 acts on several different tissues to enhance growth via several mechanisms. It's also important to note that GH and IGF-1 are interrelated, they produce a host of divergent effects (5).As you may already know, GH and IGF levels are both elevated dramatically following exercise, and this may be a primary factor in the anabolic effects of weight training. In fact, IGF-1 may be possibly used as an anabolic substitute for GH (2) in many instances. IGF-1 is, therefore, necessary as well as sufficient in muscle growth (anabolic)(1) and has been shown to also be highly anti-catabolic agent as well (2)(3). As with all anabolic substances, IGF-1's anabolic effects are still limited only by the protein (amino acid) supply within muscle cells (6) (7). Thus, as you may expect, IGF works much better when you are eating enough protein.

IGF1 may be of particular interests to athletes, as it may improve their ability to learn new skills and techniques relevant to their sport. You see, IGF is a known neuroprotector and neuropromotor(13)(14)(15), which means new skills could be learned more quickly with IGF use, and for the elderly, some of the cognitive effects of aging could be staved off or possibly halted entirely with administration of IGF1. This also has exciting implications for the medical community studying Alzheimers and other such diseases. This is because there are IGF receptors within the brain (16) and in motor neurons (17).

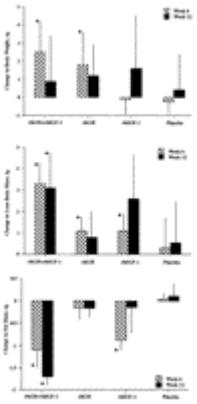
Also of note, and of special interest to both athletes and bodybuilders who are rehabbing an injury is that IGF is vital to the proper production of connective tissue, and exogenous IGF administration may improve collagen formation and aid in the repair of cartilage. (19)(18). IGF is also vital to proper bone density and bone density regulation (20). IGF administration may be highly useful for rehabilitation of any kind of joint injury experienced by athletes and bodybuilders, and would greatly decrease recovery time as well as increase the strength of the recovered area.

So now we have a basic idea of what IGF does and how it works, so I think we can start looking at how well it works, and what kind of results we can expect from it. While I was (exhaustively) researching this compound, I found a study which provided just the type of answers we are looking for…This study examined the injection of a compound which was responsible for directing overexpression of insulin-like growth factor I (IGF-I) in differentiated muscle fibers. The researchers concluded that IGF-I expression promotes an average increase of 15% in muscle mass and a 14% increase in strength in young adult mice. It's nice to be able to put some numbers on this compound, huh? But those effects are not all that the

researchers have found. IGF also seems to prevent aging-related muscle changes in old adult mice! These old mice experienced a 27% increase in strength as compared with uninjected old muscles. Muscle mass and fiber type distributions were maintained at levels similar to those in young adults. The researchers have speculated that these effects are primarily due to stimulation of muscle regeneration via the activation of satellite cells by IGF-I (8). Regardless of the mechanism of action, the results from this study are pretty exciting. A 15% increase in muscle mass, and a 14% increase in strength are no small increases. Consider this, if you are a typical 100kg (220lb) bodybuilder, you would be a 115kg (250lb) bodybuilder after those kinds of results from IGF-1! If you were a powerlifter who's best bench press effort was previously 200kgs (440lbs), then you could expect to be able to bench press 500lbs after using IGF1! Ok, so you can't exactly use that study on mice to justify those numbers, but you get the idea. IGF-1 works and it works very well. Even if we could realistically expect 7% gains in muscle mass and strength (half of the gains experienced in the study), then this drug would be able to blast many bodybuilders and athletes through the plateaus that experienced trainers often endure.

So how can we use this stuff? Well first let's talk about creating an ideal environment for IGF1 to function. See, as you've already read, there is a very great interdependence and synergy between IGF, Insulin, and GH. It has been clearly observed in studies that when GH and IGF1 are used together, you'll get greater results in the accumulation of Lean Body Mass than you would by using either of them alone (10).In addition, there is a very strong probability that testosterone would be synergistic to GH (4), and would also increase IGF levels in muscle (11).

Let's take a look at a chart showing what happens when you use IGF-1, IGF-1+GH, or GH alone:



*Changes in body weight, lean body mass, and fat mass 6 and 12 weeks after therapy. Values are the mean changes and 95% Cls. * = significant differences compared with baseline (P < 0.01). The following are the numbers of patients in each treatment group at weeks 6 and 12: recombinant human growth hormone plus insulin-like growth factor 1 (rhGH + rhIGF-1), 13 and 9, respectively; rhGH, 12 and 11, respectively; IGF-1, 1D and 4, respectively; placebo, 14 and 11, respectively*(10).

As that chart clearly shows, you will lose more fat and gain more muscle when you combine GH and IGF-1 than you would using either alone. The subjects in this study,

over 12 weeks gained around 3kgs of lean mass, and lost around 2kgs of fat. Clearly, when we use IGF, we are going to want to use it with GH. And we know that GH functions best when used in conjunction with testosterone. And since we know that GH increases insulin sensitivity, we can throw in some insulin with that GH….and if we are using insulin and don't want to get fat, I'd be most comfortable if I could add in a fat burner like T3 with it.

So there we have a laundry list of items essential to get the most out of our IGF use…but lets be honest, if you have the money to use IGF (and IGF is expensive stuff), then you should really be including these other items to maximize it's effects.

So how much IGF do we use? What kind do we buy? How much will it cost? Well, the most popular type available on the Black Market right now is Lr3igf-1 (Long R3 Insulin-like Growth Factor-I or Long R3IGF-I) which is an 83 amino acid analog of human IGF-I comprising the complete human IGF-I sequence with the substitution of an Arg for the Glu at position 3 (hence R3…clever name, right?), as well as a 13 amino acid extension peptide at the N-terminus. Huh? Well, that all adds up to make Long R3IGF-I significantly more potent (2-3x) than IGF-I in studies, because it has a lower affinity to be rendered inactive by IGF binding proteins (22) (23). Yeah, everything you've read about IGF-1 still holds true for this version, but it's just a bit more active in the body, and hence more potent. Also, it's basically the only type you can get your hands on at this time…nobody carries the "lesser" versions of it anymore. SO, you'll pay around $150.00 for 1mg (1000mcgs/mg). And how much do you use? From the people I've spoken to, I've noticed that the magic happens between 60mcgs and 120mcgs per day, in divided doses. In general, people who have used less, and even up to 50mcg/day have had mediocre results. People who have used more have suffered headaches and nausea, and generally not much more in the way of results.

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Insulin

Insulin is one of the most powerful anabolic agents in the world. Used properly, it can help you add weight more quickly than any other compound at your disposal.

Used improperly, insulin will *kill* you.

Before I delve too deeply into explaining this compound, I feel that it's important to stress that last part: Screw up with this stuff, and you die. You will go into a coma and die. And I'm talking about simply taking too much of this stuff once.

Ok?

This drug needs to be treated with caution. If you aren't willing to read as much as possible on insulin before using it, then you aren't ready to use it at all.

So first, lets talk about the insulin that's floating around in your body right now, and what it does, then we'll talk about how adding exogenous insulin (insulin from outside your body) could possibly help you.

Insulin is a protein secreted by the pancreas that acts on the liver to stimulate the formation of glycogen from glucose and to inhibit the conversion of non-carbohydrates into glucose. Insulin also promotes facilitated diffusion of glucose through cells with insulin receptors, and, of course, this means muscle tissue (1). As you may expect, very high concentrations of insulin have resulted in markedly stimulated muscle protein synthesis (2)(3)(4)(9). It does this mainly at the translational level by enhancing peptide chain initiation (11). This property and its consequent results are probably the things which makes it most interesting to bodybuilders and athletes. This is because those factors combine to make ingested protein more efficient by promoting the transport of amino acids into muscle cells. Ergo, we can clearly say that insulin is undoubtedly anabolic in muscle tissue. It also has an anabolic effect in bone, and thereby increases bone density as well (8). Another mechanism by which insulin is anabolic is via increasing your body's IGF (Insulin-like Growth Factor) levels (6). IGF is an extremely anabolic hormone.

Another unexpected aspect of insulin use is its ability to increase both LH (Leutenizing Hormone) and FSH (Follicle Stimulating Hormone), both of which—in turn—stimulate testosterone production. What I'm getting at here is that insulin stimulates gonadotropin secretion, meaning that its use may actually provide an anabolic effect through increasing your HPTA's ability to stimulate the production of testosterone (Hypothalamic-Pituitary-Testicular-Axis) (11). This effect is often manifested as virilization (development of male sexual characteristics) in women. Insulin also increases the binding ability of anabolic steroids to the androgen receptors (14), which would clearly suggest the strong possibility of a synergistic effect of insulin when combined with steroids. Most people also think that insulin has some anabolic synergy when combined with growth hormone, and certainly there is a lot of anecdotal evidence for this as well. In addition to anecdotal research, it's important to note that insulin is actually so anabolic that some researchers have

speculated that Growth Hormone's (GH) ability to stimulate protein synthesis may actually be, in part, due to GH's ability to increase insulin sensitivity (12). Certainly the complex relationship between insulin, IGF, and GH is very synergistic (13)(15)(16)(17). Using all three of them plus anabolic steroids and a fat-burner is the most potent muscle-building & fat -burning cycle possible. Of course, when something seems too good to be true, it usually is…

Unfortunately, the bad news is that insulin can easily stimulate adipose (fat) storage. Generally, though, most bodybuilders take insulin with a fat burner or two (thyroid meds are the most popular choice), as well as anabolic steroids and sometimes even GH and IGF, for reasons previously explained. All of this adds up to decreasing the chance that fat is stored, and greatly increases the amount of muscle that will be gained.

Anyway, as you probably guessed, endogenous insulin (the stuff naturally found in your body) operates on feedback from within your body. When your glucose levels get high, which is what happens when you eat a sugary snack, insulin is then released from your beta cells. When glucose is low, insulin is, of course, low. In fact, simply adding liquid glucose to a liquid amino-acid meal (thereby raising insulin levels) will increase the absorption of the ingested amino acids by roughly 50%! (7) Now, think about this: If a natural insulin response to ingested glucose can give you 50% better absorption of protein, how much protein absorption injecting it will give you?

So, now that we have some kind of understanding as to what endogenous insulin does, let's try to figure out exactly what exogenous insulin can do (that's the kind you get from a bottle). Medically, of course, insulin is used to treat diabetes, thus becoming diabetic is a real risk with improper insulin usage.

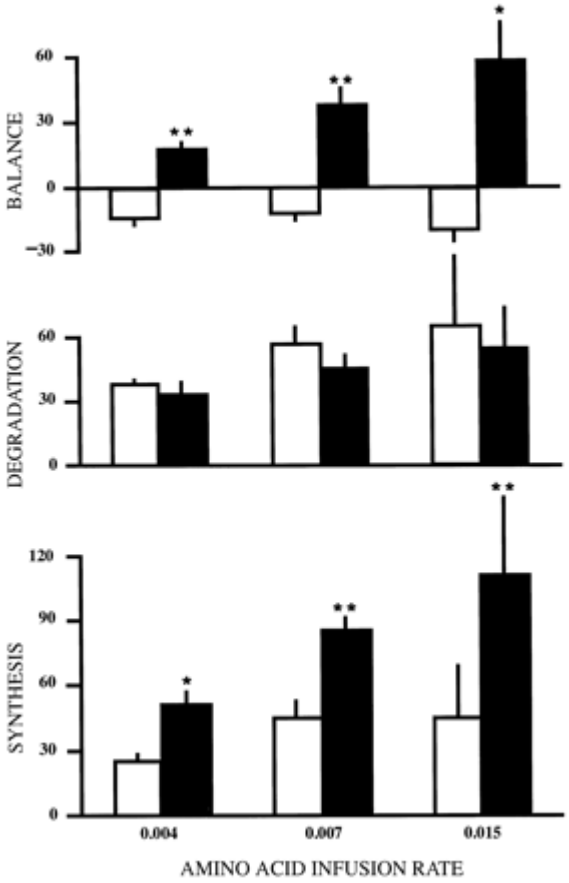
First, I'm going to give you some clinical examples of how insulin has been used as an anti-catabolic agent. In the first study I read, insulin levels were increased 15-fold in infants suffering extreme catabolism. This level of insulin administration produced a 32% reduction in protein breakdown (4). In the second study, exogenous insulin impeded muscle protein loss in burn victims (5). It's important to note that you MUST have enough amino acids (protein) in your body for insulin to exert an anabolic effect. If there are not enough amino acids floating around in your body from your last few meals, insulin will not be anabolic at all. On the other hand, If amino acid concentrations are maintained at normal or high levels as they would be in a typical athlete or bodybuilder's diet, a net protein deposition in muscle will occur (more protein deposited in your muscle = more mucle gained). This effect—insulin depositing protein in your muscles—is primarily because of an actual stimulation of protein synthesis and also owes to an inhibition of protein breakdown (10). The lesson here is that even with insulin, diet is the key to it all. You need to have enough protein in order to build muscle, regardless of how much insulin you take.

Lets quantify this a bit. What about the anabolic and anti-catabolic properties of insulin? Can we put some solid numbers on any of this?

Sure.

From the following chart, you can see that insulin puts your protein balance into a much more beneficial state, and concomitantly lowers protein degradation by

inhibition of the lysosomal pathway (this is its anti-catabolic effect) (11) and raises protein synthesis (this is its anabolic effect).



Protein kinetics. Protein balance, degradation, and synthesis rates are shown (measured in nmol phenylalanine • min 1 • 100 ml 1). Values represent means ± SE for the basal (open bars) and last 30 min of the insulin infusion (filled bars) periods with the 3 different rates of amino acid infusion (in ml • min 1 • kg 1) (P < 0.05 and ** P < 0.01 for basal vs. infusion period).*(5)

What this chart tells me is that insulin can effeciently utilize a great deal of protein above and beyond what your body normally could, and that if you should decide to use insulin, you should be taking in at least 2.2g/kg of bodyweight, and preferably 3-4.5g/kg of bodyweight.

So now we know how and why insulin works, and how well it works. Ok, let's figure out how to use it. I'll give you two basic ideas on how to safely use insulin, as well as a third "hybrid idea," and a dirty little trick on how to use insulin with a cyclic ketogenic diet, to get into ketosis earlier.

Whichever way you decide to use, remember, insulin has the ability to stimulate fat storage, so you want to make sure you are using anabolic steroids with it, as they will preferentially drive protein and nutrients towards being used for the accumulation of lean body mass over adipose tissue (fat). Personally, I also like to use a thyroid medication (Synthroid) to further insure none of my injectable insulin is going to put any fat on me. If you've been paying attention up until now, I'm sure I

don't have to tell you that GH and IGF are also very potent (and expensive) additions to any stack containing insulin. If all of that didn't whet your appetite, then consider the fact that insulin, GH, and IGF are undetectable on drug tests! Currently, there are speculative ways to test for them, but nothing consistent has been established. I suspect that insulin, GH, and IGF have helped out many a top-level "natural" bodybuilder.

So now that we know something about insulin, let's see what kind is most appropriate for bodybuilding or athletic purposes, as there are several types of insulin available, and choosing the correct type is of utmost imiportance. Basically there are 5 different types of insulin we'll look at, and from them, we'll pick the type which will best suit our purposes of building muscle:

-Humalog (Insulin lispro inj.) is the fastest acting insulin available

-Humulin-R (Regular Insulin) has a short duration of effect

-Humulin-N (Insulin Isophane) is intermediate length insulin

-Humulin-U(Medium Zinc Suspension) is another intermediate length insulin

-Humulin-U, utalente (Prolonged Zinc Suspension) is long acting insulin

(*there are also blends available of two or more of these types of insulin, in varying ratios of long:short or anything in-between)

Of these 6 possible choices, the first would appear to be the best and safest, but that particular type of insulin is (unfortunately) only available with a prescription, and getting it through a typical steroid source (which usually means through the mail) is not advisable, since you can not be sure it has been properly stored and refrigerated throughout shipping and handling. Needless to say, attempting to forge a prescription for this stuff is an exceptionally poor idea.

Our next best choice for injectable insulin is Humulin-R, so that's what we're going to be using. Humulin R is available without a prescription, from any pharmacy. This stuff has a fairly rapid onset and peak, ergo it is much easier to deal with than the other forms of insulin available…some last very long, or have varying peaks and spikes throughout their duration, and as such are just too difficult to monitor and control.

The first and most obvious way to utilize insulin for its anabolic effect is to take a little bit with each meal, possibly 1-2iu's up to 5-6x a day (insulin is measured in international units, not mgs as is common with anabolic steroids). This way you'd be getting the greatest benefit of insulin possible with each meal, and the least risk of using too much and going into shock. Of course some bodybuilders have reported using up to 20-40iu/day, but I wouldn't recommend this unless you are very experienced, and have your diet in perfect order. You'll want to take in a tiny bit of essential fats, a decent amount of mixed carbs (i.e. carbs of varying glycemic indexes), and at least 40g of protein with each meal, when using this method. Clearly, you'll also want to work up to this amount of insulin, perhaps adding 1iu per day until you reach a level you are comfortable with. This holds true for either method of insulin use I'm presenting.

The second way you can use it is to take 1iu of insulin with your post workout meal, eventually working up to 1iu/10kgs of bodyweight. When using this method, you'll want a post workout shake consisting of roughly 100-200g of mixed carbs and 40-50 grams of protein...and don't forget a small amount of essential fats with your shake. I have used insulin this way, along with anabolic steroids and a thyroid med, and have found it to enhance the gains from my cycle by around 15-20% as compared with a similar cycle that did not include insulin.

The final method is to use the first method as well as the second, so you'd be taking in 1-2ius with each regular meal and up to 1iu/10kgs of bodyweight with your post workout meal. This would ensure maximum efficiency from each bite of food you eat…but this way is also the most dangerous, and you need to monitor your blood sugar. If you get tired after a shot you'll need to get some mixed carbs into you quickly (Gatoraid and a few granola and/or candy bars). It's a good idea to carry those kinds of things around with you as insurance that your blood sugar doesn't go too low. You also don't want to take this stuff at night before bed, because you won't know if your blood sugar is going low and that's making you drowsy (meaning you could be facing hypoglycemia, and be about to go into a coma) or you are just tired because it's your normal bedtime.

And as for that dirty little trick I was telling you about: A small amount of insulin may be taken when starting a cyclic ketogenic diet, with your first meal on the day you begin. This meal would be fats and proteins, without carbs, and only 2-4iu of insulin would be taken. At the following meal, you can use half the dose of insulin as you did at your first meal.The result would be that you could be in ketosis before the end of that first day, whereas usually it would take 2 or even up to 3 days to accomplish this. Using insulin in this manner is very dangerous, and was even called "*Death Wish Dieting*" by Dan Duchaine.

Whichever method you use, remember to keep your insulin refrigerated, as it will degrade very quickly outside of a cool environment. Don't leave this stuff out of the fridge too long, either.

The other thing you don't want to do is use regular needles to inject insulin. You *NEED* insulin pins to accurately dose this stuff; remember, too much can be deadly, and the syringes you would use to inject steroids are too big to measure out units of insulin. Insulin is given via a subcutaneous injection (below the skin but above the muscle), and regular needles are just too big to do that.

Insulin (or at least Humulin-R) is currently not a controlled substance, and you should be able to buy it at your local drug store pretty cheaply: a 10cc multi-use vial dosed at 100iu/cc will cost you around $50.

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Chapter 14

NUTRITION

(How to eat on a cycle to gain & how to eat off a cycle to maintain)

In truth, this should have been the first chapter, because your diet while you are on a cycle will greatly determine your gains. Honestly, though, this book was originally intended as a book strictly about Anabolics, but then Brian (the other person involved with the writing of this book) contacted me and told me that he'd been swamped with e-mails asking about the book and if it would cover diet as well.

Really, diet can be the limiting factor in how much you gain on a cycle, and how much you keep when you go off. Dietary intake has actually been used to develop a model for predicting race performance in IronMan Triathalons (1)(2). What the researchers found was that if you don't eat right, you don't place well, and surprisingly, that Carbs and total calorie intake were the most important factors.

Table 1: Rates of water, energy, carbohydrate and sodium intakes of 59 Ironman triathletes during the event, and correlations of the intakes with finish time.

	Intake	Correlation with finish time
Carbohydrate ($g \cdot kg^{-1} \cdot h^{-1}$)	0.96 ± 0.40	-0.59 (-0.74 to -0.39)
Energy ($kJ \cdot kg^{-1} \cdot h^{-1}$)	16 ± 7	-0.56 (-0.71 to -0.35)
Water ($ml \cdot kg^{-1} \cdot h^{-1}$)	12 ± 5	-0.45 (-0.63 to -0.22)
Sodium ($mg \cdot kg^{-1} \cdot h^{-1}$)	4.0 ± 4.8	-0.12 (-0.36 to 0.14)

[a]Mean ± standard deviation
[b]Observed value of Pearson correlation between dietary variable and log-transformed finish time; 95% likely range of true correlation in parentheses.* Chart From SportSci.org, and (1)(2)

I suppose I don't even need to tell you that the same is true for bodybuilding contests, right? The difference between first and fifth place is usually a simple matter of diet, in contests below the National and Olympia-Level. At the Olympia Level, it's a whole 'nother ballgame, that for the average reader of this book is just not relevant. If you don't eat properly, and you're training hard, you'll have a vastly compromised immune system (18), and you'll get sick much more often. You can't make gains when you're lying in bed, right?

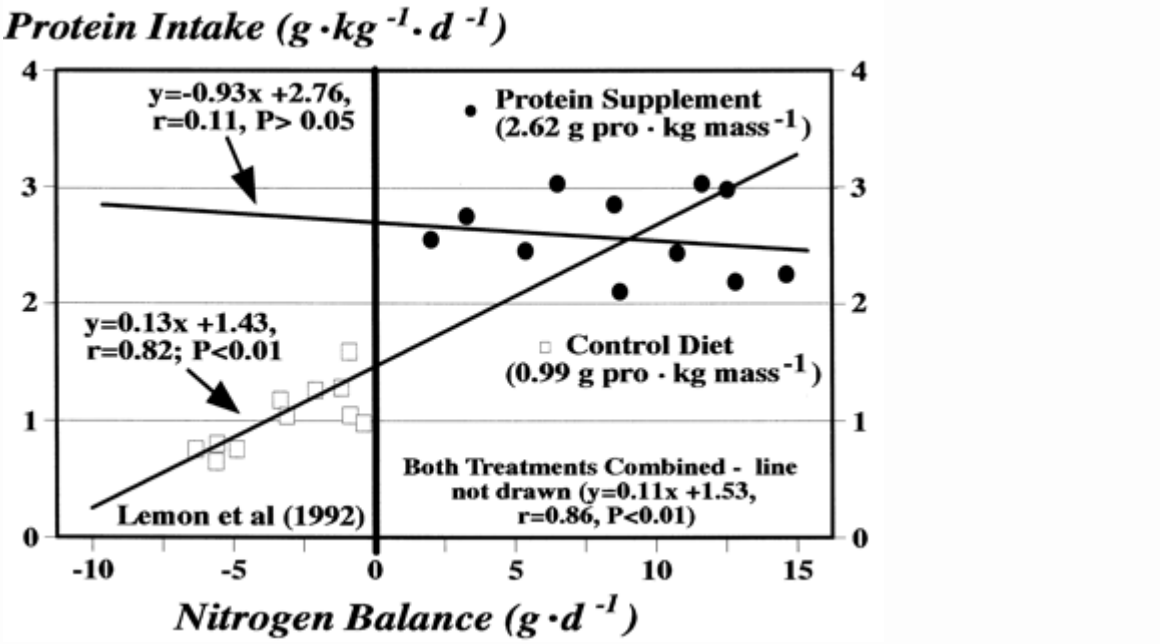
So here we are, two weeks after the book has gone to the editor for final revisions, and I'm writing the final chapter, which should actually have been the first one.

So to make this easy, let's assume that you are not currently gaining nor losing weight. What you're going to have to do is chart your calorie intake for a week, and figure out how much you are eating, calorie-wise. Once you've done that, you'll have a good starting point to figure out how the rest of this chapter applies to you. Once you know that, you know that you'll have to increase your calories to gain weight and lower them (yuck) to lose weight. This, of course, is not rocket science, but it requires accurate record-keeping. For me, I need around 2,800 calories every day to maintain my weight. I personally move my caloric intake about 500 calories either way to basically lose or gain a lb every week (given no change in energy requirements). Of course it's more complicated than that unless everyone reading this book is a 210lb guy who stands 5'7", with 8-9% body fat….but I think those numbers will give you an idea of where to start. Try moving your calorie intake 10% either way for a few days, and chart your results, weight-wise to find out where you need to be personally to lose or gain the weight you desire.

Next, we need to take a look at the three primary macronutrients we're going to be working with (protein, carbs, and fat) and the ratios we will want to consume them in, then some micronutrients (vitamins, minerals, and other fun stuff), and finally how to manipulate our intake of them to get the most out of our cycles, and maintain our gains off of them.

Here's some not-so-quick definitions of the macronutrients involved, their role in your body, and my recommendations of the percentage of your daily caloric intake that they should comprise respectively:

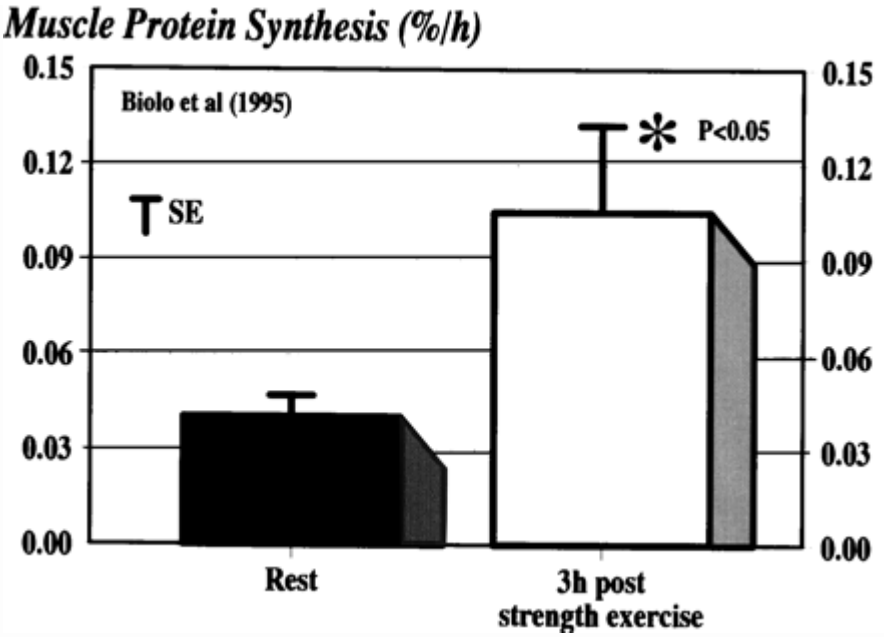
Protein is the building block of your muscle. You need to realize that anabolism in the absence of protein is almost impossible, regardless of what exotic steroids you are putting into your body. However, humans can synthesize only about 50% of the necessary amino acids that make up the proteins in our bodies. If the remaining amino acids (cleverly known as "essential amino acids") are not consumed in sufficient quantities, protein production will suffer. What we need to remember, as athletes or bodybuilders interested in building muscle is that the quality of protein in a food is vastly differing, and of utmost importance. The quality of a protein is determined by its essential amino acid content (16). A select few foods (called complete proteins) contain all of these essential amino acids, and they are contained in amounts sufficient to maintain and promote protein synthesis through maintaining a positive nitrogen balance. Let's look at how nitrogen balance differs in people who are undergoing strength training, with differing protein intakes:



Comparison of nitrogen balance (protein requirements) in individuals who are strength training with differing protein intakes.

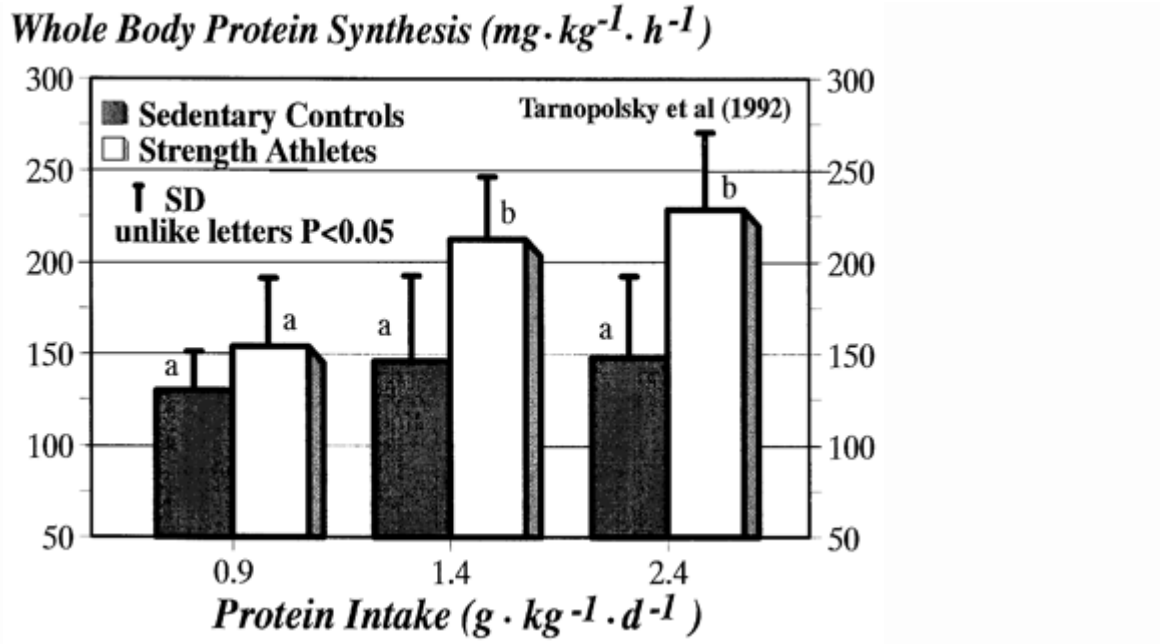
Clearly you need to take in more (and higher quality) protein if you're strength training, and this would include mostly complete protein foods, optimally. Other foods simply lack one or two amino acids, and those foods can be combined in a meal to make sure you get all of your essential amino acids. The foods with all of the essential amino acids are called complete protein foods, and you can probably guess what they are. They've been on the athletes' training table for the last two-thousand years, since ancient Olympians found their benefits. They include stuff like dairy products, eggs, meat and fish. Incomplete proteins, as you can also guess, are foods like grains, vegetables and fruits. It is very possible to obtain sufficient indispensable amino acids from a diet that excludes complete protein foods entirely by combining grains, vegetables and fruits, this requires some esoteric knowledge of which foods to combine, by looking at which have amino acids that others lack. Vegetarians, especially those who exclude eggs and dairy products (Vegans), are therefore at great risk for insufficient dietary protein intake. I know there aren't many vegetarian bodybuilders (Bill Pearl aside), but in one particular study I read, 59 to 69 year-old men, strength training produced greater muscle mass gains with a meat-containing diet in comparison to a lacto-ovo-vegetarian diet (15). However, in younger strength and speed athletes there has been shown no clear benefit to eating meat (7). So, eat meat for your protein if you like it, or because you want to fulfill some kind of psychological need for a steak, or whatever, but realize it's not necessary. It is of note that the latter study concerned athletes who had protein supplements like (whey powder) available to them. This data strongly suggests that the type of protein may play an extremely important role in muscle growth when ingested in conjunction with strength training. The ideal protein for this is, of course, whey protein. This type of protein, especially whey protein isolates or hydrolyzed whey peptides, has taken off in the world of strength training and bodybuilding in the last decade. It's widely touted by strength athletes as being the highest quality protein commercially available. This contention is typically (and correctly) based both on whey's extremely high bioavailability as well as its content of glutamine,

leucine, isoleucine and valine. Exercise reduces glutamine levels in the body, which can cause immunosuppression (20) and when glutamine/glutamate levels dip too low, there is a high correlation with overtraining (21). Those last three amino acids (Leucine, isoleucine and valine) are the branched-chain amino acids (BCAAs), and make up about one-third of muscle protein. When you train, you experience decreases in all three of those highly important amino acids (18). Of great importance is that significant decreases in plasma or serum levels of leucine occur following both aerobic (11 - 33%) as well as anaerobic lactic (5 - 8%) and strength exercise (30%) sessions. There is also a huge decrease in leucine level in skeletal muscle and a concurrent reduction in glycogen stores during exhaustive aerobic exercise. Leucine levels decrease by $1/5^{th}$ during 5 weeks of speed and strength training in power-trained athletes who were fed a relatively high daily protein intake of 1.26 g/kg bodyweight. And this reduction still occurred! This could be due in part to the relative low concentrations of leucine and other BCAAs in regular whole foods. As a general rule, the leucine content of protein varies between 5 and 10%. There are some sports nutritionists and scientists who suggest that the current recommended dietary intake of leucine for athletes be increased from 14 to 45 grams/day for a 100kg athlete. This would mean that our hypothetical 100kg bodybuilder has to ingest quite a bit of protein (450-900grams/day!) if it comes mostly from poor sources. However, to avoid this type of deficiency in total protein or in specific essential amino acids, athletes ought to consume 2.2 grams of protein per kg of bodyweight (1g/lb), from high quality protein sources. If you are 100kgs, and taking in 100grams of whey protein every day, and 100 grams from other reasonably high quality sources, you'll have no problem meeting your BCAA and total protein requirements. Consumption of BCAAs (or roughly 30 to 35% leucine in a protein supplement like whey) before or during endurance exercise clearly prevents or greatly decreases the net rate of protein degradation, and in addition may improve both mental and physical performance (17). Obviously this is of great interest to athletes because in addition, it may even have a potentially sparing effect on muscle glycogen degradation and depletion of muscle glycogen store (17). Legendary strength coach Charles Poliquin recommends 20-40 grams of BCAA's before and after training, with perhaps a Carb/BCAA drink during training, as one of his tricks to adding LBM quickly. This is, of course, a great idea, and can be counted towards your daily efforts at getting in enough protein. I take some aminos before training. Typically whey protein is used just following training, since it enters the blood stream following ingestion faster than casein (the major milk protein), which is well known to produce a significantly lower but more prolonged increase in blood amino acids (14). Casein, therefore, and other proteins with a slower absorbtion rate (albumin, etc) would be more appropriate to use prior to training, when you want to have amino acids available for an extended amount of time. After a workout, you want them available and in your body as quickly as possible, to begin muscle repair. You're going to need whey protein for that.



Effect of a strength training session on muscle protein synthesis

Increasing exercise intensity and duration, at least with aerobic exercise (and I know you aren't going to skip cardio), causes an increased use of protein, apparently as an auxiliary fuel (8)(9)(10)(11). What this means is that before you can even start thinking about how much protein you need to start building muscle, you need to know how much you're using as energy, right? Well, nitrogen balance experiments (a measure of protein excretion vs/ intake) have shown that just doing some reasonably intense cardio results in an increased daily protein need of around 50% to 75% (1.2–1.4 *vs.* 0.8 g/kg)! In addition, heavy resistance (strength) exercise appears to increase protein need by about 100%, again based on nitrogen balance experiments. Not only does this mean that you are using more protein for fuel but, also, isotope tracer studies have revealed that the underlying mechanism is not simply increased fuel use. Rather, your body undergoes changes in muscle protein synthetic rate (12) resulting from your newfound need to maintain a greater overall muscle mass (13) caused by the gains you've made through your weight training. Here's an idea of what I'm talking about:



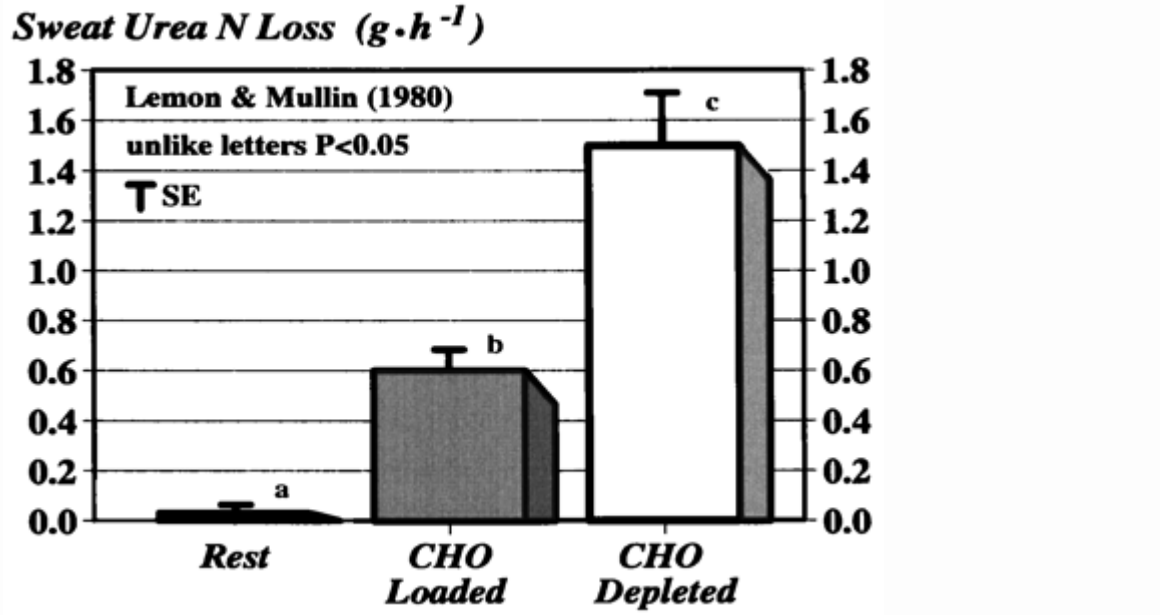
Effect of increasing protein intake on protein synthesis in strength athletes vs. controls

So let's recap my recommendations on Protein, which are the same on a cycle as off:

- ☐ Ingest 1g/lb of bodyweight of quality protein (2.2g/kg)
- ☐ Take in at least half of your protein from whey, and at least half of that needs to be in a post-workout meal
- ☐ All of protein which you "count" towards your daily intake should be "complete" proteins, containing all necessary amino acids

So, with a gram per pound of bodyweight, that means I take in 210grams of protein every day, or 840 calories…around a third of my calories.

Although Protein is probably the easiest of the three macro-nutrients to determine your requirements for, moderate exercise will deplete you of protein pretty quickly, even if you have adequate carbohydrate (solid bars), but even more so when you have an inadequate amount of carbs (open bars).

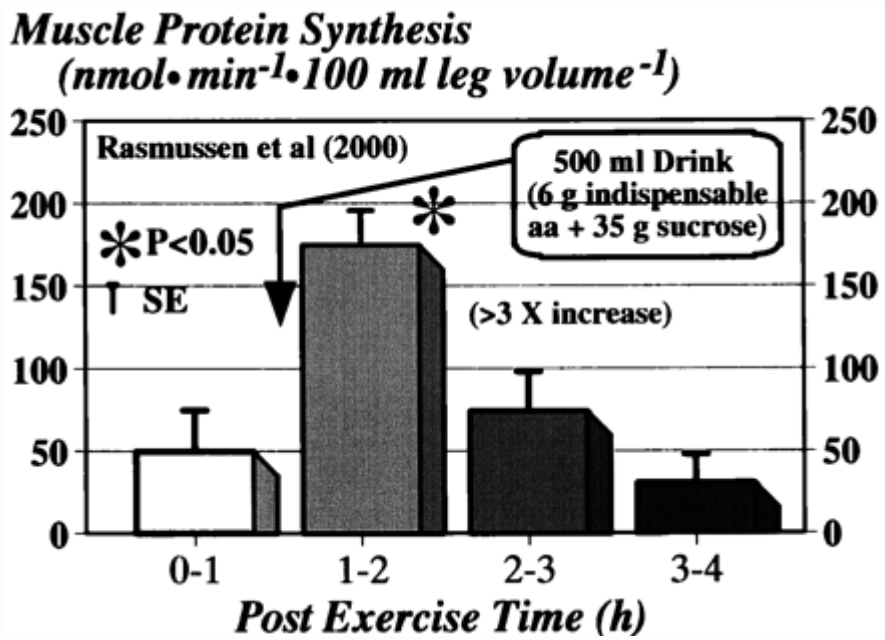


***Nitrogen excretion increases with prolonged, moderately intense exercise and especially so when carbohydrate stores are low* (6)**

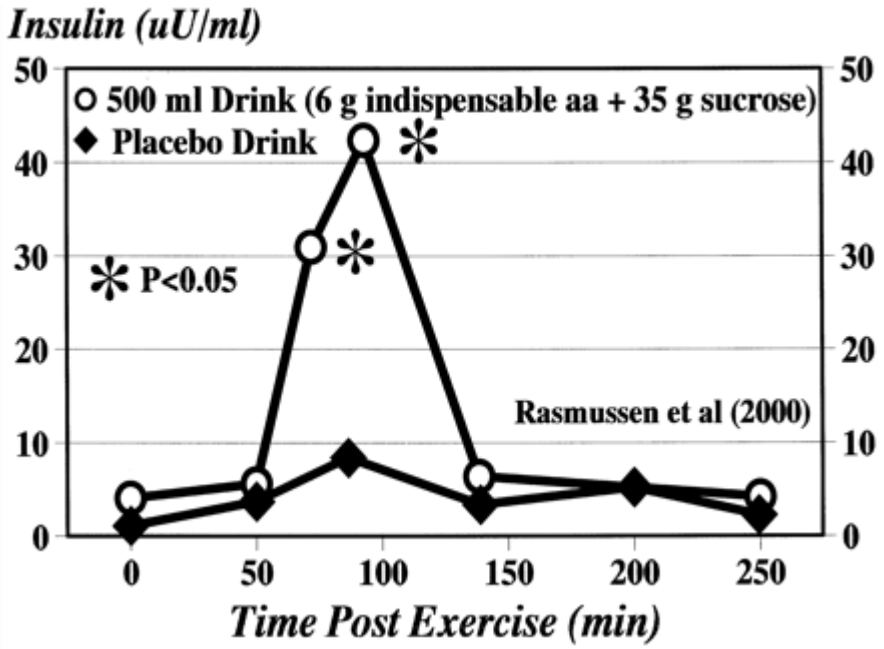
It's clear that we need to consume protein, but now it's clear that carbohydrates also play an important role in preserving protein. And carbs are either simple (released into your body immediately) or complex (released slowly). Briefly, complex carbs provide sustained energy, and simple carbs provide a quick (though temporary) surge in energy. I'm relatively amoral concerning carbs, and I actually ingest a lot of simple ones…but that's always post workout. Now, remember how I said you need to take in enough protein? Well, of course, you need to combine it with carbohydrates in order to get the most out of the protein you ingest, and not have it excreted excessively or used as energy during exercise due to a lack of glucose. This excess excretion of protein will have the exact opposite of stimulating muscle growth; it will grind new muscle growth to a halt, anabolics or not. If you are excreting too much protein, and not getting enough in, muscle growth will not be possible. On the other hand, it is highly possible to stimulate muscle growth (either by minimizing degradation or possibly maximizing synthesis) via carbohydrate/amino acid ingestion following a strength exercise session (27)(28). This combination is probably so effective due to insulin-stimulated (22)(23) changes in muscle amino acid uptake as well as enhanced protein synthesis (22). Unfortunately, carbs are the first things we need to cut out when dieting, because proteins and fats are too important. In fact, remember when I told you that essential amino acids are the key here? Well it actually appears that the nonessential (dispensable) amino acids are almost unnecessary (22). So you'll need to be stocking up on whey protein, if you want maximum results from your anabolics, and maximum retention of your gains when you go off. Without maximizing protein synthesis, you're leaving 5-10lbs on the training table with every cycle, since a strength training session affects both muscle protein degradation and synthesis (24)(25).

Carbohydrate intake immediately following exercise can easily enhance muscle glycogen resynthesis when compared to the same exact intake several hours later (21). So clearly, post workout, the addition of simple carbs into your whey protein

shake will speed carbohydrate absorption and aid glycogen recompensation in your hard-trained muscles, and it has been proven by results in countless athletes that a carb + protein beverage immediately after exercise is superior to taking either one alone. Personally, I take 50g of whey protein (I use Solid Muscle Whey Protein) along with 100 grams or so of (liquid) simple carbs. When combined with simple carbs, a mere 6 grams of essential amino acids can increase muscle protein synthesis and insulin release by an astonishing rate. I don't ever forgo my post-workout shake, and I think after you see these charts, you won't either:



Effect on indispensable amino acid intake following strength exercise on protein synthesis.



Effect of indispensable amino acid intake following strength exercise on insulin release.

In addition to your post workout shake, I recommend that you take in enough carbohydrates to get you comfortably through your workouts and/or athletic training, and not too much more. I take in 50% of my daily carbohydrates in my post workout meal and shake. Why? Because that's when they are most likely to be used for what I want them to be used for….building muscle. Other than that, I eat relatively low carbohydrate meals for my other 5 daily meals (10% of my daily carbohydrates at each meal…which amounts to some veggies, or some other complex carbohydrates at each meal).

Lets go over my carbohydrate recommendations;

- ☐ Eat enough to comfortably get through your workouts and training
- ☐ Complex carbs are eaten all day, except for post workout
- ☐ Simple carbs should be eaten post workout, which can be up to 50% of your daily carb intake
- ☐ If you are trying to lose weight (fat), carbs are the first things to cut out of your diet to create a caloric deficit

So basically, I have about 200+ grams of carbs every day, or around a third of my calories.

I've left fats for the end of this chapter because they are just, to be simple, agonizingly complex. I'm going to try to make this relatively painless, though. Let's take a look at some different types of fat first.

You should avoide saturated fats—especially when messing around with steroids—because of possible heart problems (29), and because they lower insulin sensitivity (30)(31) and are highly correlated with obesity. They are to be seen as a source of calories, but not much more, while some of the more interesting fats can actually have ergogenic (performance enhancing) effects. On the other hand, I love saturated fats like French fries, eggs, and cheese. No, not all at once. Well, maybe all at once on special occasions…

After saturated fats, there are unsaturated fats, like those found in linoleic oil, avacados and nuts. These can actually be beneficial, as they are positively correlated with lean mass accrual and fat loss (32)(33)(34). If you are going to eat fats, you should eschew saturated fats, and go for stuff unsaturated fats. Of course, poly and mono unsaturated fats are simply different types of fats, with poly-unsaturated being moderately healthier. As you can guess, a saturated fat has all of its positions "saturated" with hydrogen, while a mono has one position lacking a hydrogen, and the poly variety is missing more than one. Safflower oil is a very popular unsaturated fat, and if you add it to any protein shake especially with a mix of proteins and complex carbs, it will slow absorbtion greatly and give you a nice steady release of protein over a couple of hours. Fish oil can also be used in that capacity, which has the added benefits of Omega-3 fatty acids, but a fish and dutch chocolate protein shake is, well, less than appealing to me, personally. I usually have a small salad with all of my non-post-workout meals, and put some safflower or olive oil on it. If I have a protein shake late in the day, it usually has non-hydrogenated (remember, there's a hydrogen lacking in unsaturated fats, so hydrogenation makes them saturated by adding the missing hydrogen) peanut butter in it, or something similar, to add the fats I need in my diet. Clearly, since protein is 1/3rd of my diet and so are carbohydrates, fat takes up the last third.

Here's my final recommendations on fat, for this chapter:

- ☐ Avoid saturated fats
- ☐ Favor unsaturated fats, especially polyunsaturated fats
- ☐ Avoid hydrogenated fats

I've tried to make this chapter as painless as possible, since I know most of the people reading this book will want to know what to put in their syringe, and where and when they can start shooting it. Hopefully, even though I wrote this chapter last, you won't read it last…because it's probably the most important chapter in the book.

Chapter 15

Legal Interview:

The Final Chapter, but not the Final Word

The following is an interview conducted with a lawyer who has been involved in anabolic steroids for almost a decade. His identity will, however, necessarily be hidden.

BC: Internet message boards… are they safe or unsafe?

Lawyer X: The inherent problem with internet anabolic discussion boards is that in many cases they are people's sole source for obtaining anabolic steroids, and this is in stark contrast to most other controlled substances: heroin, cocaine, etc…. In general, people look to the Internet Anabolic Steroid message boards (like Steroid.com) to share their experiences with anabolics, and also obtain information about the usage of anabolic steroids …typically, there will also be several other forums where people can engage in conversation about working out, bodybuilding, powerlifting nutrition, and related issues; those are the legitimate uses of internet discussion boards and are totally protected under the First Amendment. Steroid.com for example, operates solely for the exchange of information and is doing the online steroid community a huge service, by keeping it members and anyone who views it "safe" in terms of steroid usage, since (except for this book, and the too few like it) there is simply so much disinformation about steroids these days. Unfortunately, there are many, many boards nowadays, and the amount of staff required to run that many means that people are usually engaged in running several boards, or that they are woefully under-qualified to do so at all (in the vast majority of cases). But in answer to your question, yes, providing information on steroids and such is totally legal.

BC: SO did I hear you right? This kind of thing is protected the first Amendment? It's just freedom of speech, right?

LX: Right. The conversations that are protected by the first amendment include training, diet, and stuff like that…but also steroid usage, dosages. In no way is advocacy of illegal conduct protected via First Amendment speech, nor is damaging/dangerous conduct (yelling fire in a crowded movie theatre is the most common example they give at law school). SO yes, for the most part, typical posting and replying that the average member engages in on Steroid.com in on the message boards falls under the protection of free speech and can not be prosecuted. The lesson to be learnt here is that, generally speaking, the Internet message boards are safe for people to post and gather information. That's a vast oversimplification, and of course there are some message boards that violate those boundries walk a fine line, and get much closer into clearly illegal activities and we should talk about them for a minute.

BC: SO what can we look for? What kinds of boards are "safe"?

LX: Of course Steroid.com is safe. I'm sure you already knew that though. Members there share steroid experiences, engage in steroid conversation, or discuss training and diet tips. There is no discussion of how to obtain anabolic steroids that people are talking about, and anything posted on that is not intended to do so. Both the website, the owner and the staff should feel comfortable there, as should everyone else. Possible interest to law enforcement officials is, ergo, virtually non-existent and this kind of website that is very safe, keeps people informed, and is representing the online community the best.

BC: What about boards with a "Classifieds" forum, where there may (or may not) be sources of anabolic steroids advertising their wares?

LX: That's a good question, and like many legal questions, falls into many grey areas. Certain boards can have what is called a private classified section where people typically engage in the sales of anabolic steroids; but if it's not monitored and the board, the owner, and/or the all derive no clear material benefit from the sale of those illegal substances, then it is safe, though still rather suspect, and certainly not in the class of the first type of board I spoke of. As I said, like most legal questions, there is no really clear-cut answer.

BC: How about totally unsafe boards? What type of board should we avoid?

LX: Well…do you mean legally or philosophically?

BC: I suppose I meant legally, but how about you include philosophically too?

LX: I would personally avoid any kind of "invite board," "vet board" (also called a "private board" sometimes)… or basically anything that is not open to the public. As a rule, which I have not really ever seen broken (and I have seen every such forum on the internet at the time of this writing), the anabolic advice given in them is mediocre at best. They basically exist as a gossip forum and a steroid source forum. If you will allow me a colloquialism, Lots Of Idiots hang out in invite/vet boards, the information in them is average at best, intellectualism is stifled, and they are wrought with elitism of the worst kind. For the most part, they are not even a legitimate source for information concerning anabolics. They should be shunned by every reader of this book, even if only for the fact that they are basically populated and staffed by steroid dealers as a rule. The first amendment does not protect this kind of board, and they are rife with law enforcement officials making easy busts. Also, as another general rule any kind of "open source" message board that explicitly allows the open and uncontrolled posting of steroid price lists by steroid dealers (sources), whether they are so-called international or domestic suppliers, is a website that should be left alone at all costs. So my public service announcement for the day is to shun and scorn both invite/vet/private boards as well as open-source boards (especially when owned by a source!). Lecture over.

Finally, I'd like to add that most boards are safe, at least relatively. You should go to one where there is no discussion of how to get anabolics, and you will probably be alright. Another good gague, information-wise, is to check the Anabolic Steroid Profile information and Educational information available on sites. If the information on them is well researched and referenced, and written by a current staff member, or person affiliated with the site, then it's a good choice. If they are all copied from another site, then you should simply visit the site they were originally found on. Why

not go directly to the original source for information? The next thing you should do is check the temperament of the staff. Are they cursing and acting immaturely? If so then leave. If they are condescending to members or demeaning in some way, then I suggest you go elsewhere. Remember, anyone with $50 to spend per month can operate a board…and these days it would seem that's the case with most boards. Remember, the quality of information on discussion boards is not regulated by any agency…and there are so many now-a-days, that there are not nearly enough knowledgable people to go around. Sadly, this is the state of affairs we are coping with…people who mostly say "bro" and "lol" on discussion boards, and provide very little useful or original anabolic steroid information.

BC: I have to say, you present a pretty bleak picture there, but I can't disagree with anything you said. I certainly agree with your comment about invite boards having "Lots Of Idiots", even if it's rude. I've always personally wondered why people would hang out on a board like that, which is private/vet/invite-only…Ok…moving right along, I'm sure you're familiar with the term "source check." But I'd like to define it for some of our readers, then ask you a question about it. As you know, on various Internet discussion boards there is a Private Messaging system where you can contact other members or staff. It has become common practice to send a message to the staff of such boards asking if a source for anabolic steroids is legitimate or simply a scam. This is, as you know, called a "source check." So I guess the question I'm asking is: are source checks legal or illegal?

LX: A source-check is when somebody gets the e-mail address of a source of steroids and then address the moderators or veterans of a board with a question as to that source's validity. Generaly, the moderators or veterans of a message board will probably know which sources are trustworthy or not. You should, however, shun any moderator who attempts to give you the address of a source and dissuade yhou from using the one you approach them with. Clearly, they are on the source's payroll 99% of the time. And of course you ought to never ask for a source either openly or privately. Now; are source checks safe? Not really. Quite frankly, if you freely give out information to someone about getting their hands on steroids or any controlled substance, you may get inadvertently involved in a conspiracy. Conspiracy is just a very vague law, and you'll probably be shocked to know that a person can actually be convicted of conspiracy without ever committing a crime! The bizarre part about all of this is that conspiracy involves a crime that need only be mental, because it involves both a meeting of the minds as well as intent…but no actual physical crime! The easy and predictable argument from the person who givesout the source check to a person who asks, is that they are not dispensing information as such; they are conforming or denying information that has been presented to them. Ergo, "is JoeBloe still a good source" is a source check, and in simply answering it, no real passage of knowledge on obtaining steroids ever happened. But if you want to maximize your personal safety, then you ought not be engaging in the answering of questions like the one just discussed.

BC: Recently, a lot of Internet message boards have begun using off-shore servers (an Internet service provider which is located outside of the United States). Those boards then typically engage in illegal activity, without fear of prosecution. Are these types of Internet message boards safer?

LX: I don't care where your server is, if your ASS is in the UNITED STATES! Off shore servers are incorrectly and egregiously perceived as being safer because the server, and ergo the information on the server, is actually offshore. They are neither

safer for the members, nor the owners and staff. This is a complete and utter fallacy for the most part. If you live in New Jersey, and own LotsOfIdiots.com and you seek out an offshore server to protect yourself from facing legal reprocussions from operating a board in an illegal manner, your server location is basically irrelevant, and you are totally subject to US law. Having your name hidden from "Who is" searches or using an IP anonymizer will also not help in cases of such sheer stupidity. And, in addition, an overseas subpoena can be sent out by the Feds, simply requesting your hosting company give them all the information- and most will. Most of the silly things people do to avoid persecution are just that…silly.

I suppose, in theory, an offshore server could work is if BOTH the person who owns the website and the server is offshore and violating no current laws of their country…then you clearly have a situation where that website is not under the jurisdiction of US law and is also therefore immune from US interfearance as well as prosecution. Several boards exist that fit this description, and would not hesitate to visit them, for the most part. This situation becomes even better if board owner actually owns the server that is located offshore as well. It is hard to believe he/she would comply with a Federal subpoena. This would be a very good route to go, and many board owners have done this already.

BC: I know you are familiar with the term "research chemical." This is basically a chemical bought and sold on the Internet, for research purposes. These chemicals are almost always simply liquid forms of bodybuilding drugs--ancillaries, clen, etc.—labeled "not for human consumption." Is this legal?

LX: In this case, we tend to say they arrest the hookers* and not the Johns. The client (the customer) has a liability that is nonexistent I believe. This may not be the case for the research company's liability however. If you are a the customer, you are going to be alright, but the companies may ned to worry bit in the future.
(*clearly a terrible inside joke)

BC: Since this is a book about Anabolic Steroids, primarily, let's talk about them? How are they classified legally? Are they simply controlled substances? How about a list or something?

LX: Well, they (steroids) are schedule III drugs for all classification purposes, so let's look at that list you asked for as well as the statute it concerns (which now interestingly has been updated to proscribe pro-hormons);remember those? This is the current definition of an anabolic steroid as defined under 21 U.S.C.A. §802(41)(A):

(41)(A) The term "anabolic steroid" means any drug or hormonal substance, chemically and pharmacologically related to testosterone (other than estrogens, progestins, corticosteroids, and dehydroepiandrosterone), and includes
(i) androstanediol--
(I) 3<<BETA>>,17<<BETA>>-dihydroxy-5<<BETA>>- androstane; and
(II) 3α,17α-dihydroxy-5α- androstane;
(ii) androstanedione (5α-androstan-3,17-dione);
(iii) androstenediol--
(I) 1-androstenediol (3<<BETA>>,17<<BETA>>-dihydroxy-5<<BETA>>-androst-1-ene);
(II) 1-androstenediol (3α,17α-dihydroxy-5α-androst-1-ene);
(III) 4-androstenediol (3<<BETA>>,17<<BETA>>-dihydroxy-androst-4-ene); and

(IV) 5-androstenediol (3<<BETA>>,17<<BETA>>-dihydroxy-androst-5-ene);
(iv) androstenedione--
(I) 1-androstenedione ([5α]-androst-1-en-3,17-dione);
(II) 4-androstenedione (androst-4-en-3,17-dione); and
(III) 5-androstenedione (androst-5-en-3,17-dione);
(v) bolasterone (7α,17α- dimethyl-17α-hydroxyandrost-4-en-3-one);
(vi) boldenone (17<<BETA>>-hydroxyandrost-1,4,-diene-3-one);
(vii) calusterone (7<<BETA>>, 17<<BETA>>-dimethyl-17<<BETA>>-hydroxyandrost-4- en-3-one);
(viii) clostebol (4-chloro-17<<BETA>>-hydroxyandrost-4-en-3-one);
(ix) dehydrochloromethyltestosterone (4-chloro-17<<BETA>>-hydroxy-17<<BETA>>- methyl-androst-1, 4-dien-3-one);
(x) Δ 1-dihydrotestosterone (a.k.a. "1-testosterone") (17Δ-hydroxy-5Δ-androst-1-en-3-one);
(xi) 4-dihydrotestosterone (17<<BETA>>-hydroxy-androstan-3-one);
(xii) drostanolone (17<<BETA>>-hydroxy-2<<BETA>>- methyl-5<<BETA>>-androstan-3- one);
(xiii) ethylestrenol (17α-ethyl-17α-hydroxyestr-4-ene);
(xiv) fluoxymesterone (9-fluoro-17α-methyl-11α, 17α-dihydroxyandrost-4-en-3-one);
(xv) formebolone (2-formyl-17α-methyl-11α, 17α-dihydroxyandrost-1,4-dien-3-one);
(xvi) furazabol (17α-methyl-17α-hydroxyandrostano[2,3-c]-furazan);
(xvii) 13<<BETA>>-ethyl-17<<BETA>>-hydroxygon-4-en-3-one;
(xviii) 4-hydroxytestosterone (4,17<<BETA>>-dihydroxy-androst-4-en-3-one);
(xix) 4-hydroxy-19-nortestosterone (4,17<<BETA>>-dihydroxy-estr-4-en-3-one);
(xx) mestanolone (17α-methyl- 17α-hydroxy-5α-androstan-3-one);
(xxi) mesterolone (1α-methyl-17α-hydroxy-[5α] -androstan-3-one);
(xxii) methandienone (17α-methyl-17α-hydroxyandrost-1,4-dien-3-one);
(xxiii) methandriol (17α-methyl- 3α,17α-dihydroxyandrost-5-ene);
(xxiv) methenolone (1-methyl-17<<BETA>>-hydroxy-5<<BETA>>-androst-1-en-3-one);
(xxv) 17α-methyl-3α, 17α-dihydroxy-5α-androstane;
(xxvi) 17α-methyl-3α, 17α-dihydroxy-5α-androstane;
(xxvii) 17α-methyl-3α, 17α-dihydroxyandrost-4-ene.
(xxviii) 17α-methyl-4-hydroxynandrolone (17α-methyl-4-hydroxy-17α-hydroxyestr-4-en-3-one);
(xxix) methyldienolone (17α-methyl-17α-hydroxyestra-4,9(10)-dien-3-one);
(xxx) methyltrienolone (17α-methyl-17α-hydroxyestra-4,9-11-trien-3-one);
(xxxi) methyltestosterone (17α-methyl-17α-hydroxyandrost-4-en-3-one);
(xxxii) mibolerone (7α, 17α-dimethyl-17α-hydroxyestr-4-en-3-one);
(xxxiii) 17α-methyl-α 1-dihydrotestosterone (17α-hydroxy-17α-methyl-5α-androst-1-en-3-one) (a.k.a. "17-α-methyl-1-testosterone");
(xxxiv) nandrolone (17<<BETA>>-hydroxyestr-4-en-3-one);
(xxxv) norandrostenediol--
(I) 19-nor-4-androstenediol (3<<BETA>>, 17<<BETA>>-dihydroxyestr-4-ene);
(II) 19-nor-4-androstenediol (3α, 17α-dihydroxyestr-4-ene);
(III) 19-nor-5-androstenediol (3<<BETA>>, 17<<BETA>>-dihydroxyestr-5-ene); and
(IV) 19-nor-5-androstenediol (3α, 17α-dihydroxyestr-5-ene);
(xxxvi) norandrostenedione--
(I) 19-nor-4-androstenedione (estr-4-en-3,17-dione); and
(II) 19-nor-5-androstenedione (estr-5-en-3,17-dione;

(xxxvii) norbolethone (13<<BETA>>, 17<<BETA>>-diethyl-17<<BETA>>-hydroxygon-4- en-3-one);
(xxxviii) norclostebol (4-chloro-17<<BETA>>-hydroxyestr-4-en-3-one);
(xxxix) norethandrolone (17α-ethyl-17α-hydroxyestr-4-en-3-one);
(xl) normethandrolone (17α-methyl-17α-hydroxyestr-4-en-3-one);
(xli) oxandrolone (17α-methyl-17α-hydroxy-2-oxa-[5α]- androstan-3-one);
(xlii) oxymesterone (17α-methyl-4,17α-dihydroxyandrost-4-en-3-one);
(xliii) oxymetholone (17α-methyl-2-hydroxymethylene-17α-hydroxy- [5α]-androstan-3-one);
(xliv) stanozolol (17α-methyl- 17α-hydroxy-[5α]-androst-2-eno[3,2-c]-pyrazole);
(xlv) stenbolone (17<<BETA>>-hydroxy-2-methyl-[5<<BETA>>] -androst-1-en-3-one);
(xlvi) testolactone (13-hydroxy-3-oxo-13,17-secoandrosta-1,4-dien-17-oic acid lactone);
(xlvii) testosterone (17<<BETA>>-hydroxyandrost-4-en-3-one);
(xlviii) tetrahydrogestrinone (13<<BETA>>,17<<BETA>>-diethyl-17<<BETA>>-hydroxygon-4,9, 11-trien-3-one);
(xlix) trenbolone (17<<BETA>>-hydroxyestr-4,9,11-trien-3-one); and
(xlx) any salt, ester, or ether of a drug or substance described in this paragraph.

The substances excluded under this subparagraph may at any time be scheduled by the Attorney General in accordance with the authority and requirements of subsections (a) through (c) of section 811 of this title.

You will however, note that it reads:

Except as provided in clause (ii), such term does not include an anabolic steroid which is expressly intended for administration through implants to cattle or other nonhuman species and which has been approved by the Secretary of Health and Human Services for such administration.

Hmm…perhaps that's why purchasing finaplex pellets is still legal…though making your own Trenbolone product is (easy but) illegal.

BC: Damn! That's all the fun stuff! All of the cool stuff is illegal! Why would they do that?

LX: Political discussion is perhaps better left for another day, but I feel it necessary to note that Congress did not determine that steroids were a danger, but rather that they needed to protect professional sports organizations. As for myself, I can not remember that being a hot issue around last election time…Apparently, it's their job now, and hence passed the Anabolic Steroid Control Act of 1990 - making anabolic steroids Schedule III substances in the class with opiate painkillers like Vicodin, as well as barbiturates, ketamine, and various other substances.

BC: Well, let's talk about importing controlled substances, like steroids. When can packages be opened? Are there different applicable laws when the package is sent domestic vs. internationally?

LX: Whoa, slow down. Let's take those questions one at a time. First of all, any package coming from an international venue CAN be opened AT WILL. It is very important to note that absolutely no probable cause or even reasonable suspicion of

any type of wrongdoing is necessary. If your package is coming from an overseas location then it can be opened and inspected for any reason. Any.

As regards domestic mail, first class mail, priority mail, and express mail all require a search warrant that can only be obtained with what is known as probable cause, a measurably higher standard than simply reasonable suspicion. This makes it commeasurately less likely that your domestically mailed package will be randomly inspected or even deemed to be in the category of packages which can be, but clearly if the package is leaking oil, bears an invalid return address, the return address is flagged due to an ongoing investigation, or if unluckily your package happens to break open—it can be searched and you may be receiving a visit from the authorities. Also, if the return address is "Illegal Steroids, 69 Steroid Lane, Steroid Land USA, then it will be opened. In the end, just because you are receiving a domestic package does not mean you are immune from having your package searced or from prosecution.

BC: What if I use a P.O. box? Does that afford me any further protection versus simply using my home address if I were getting something illegal sent to me through the mail?

LX: The P.O. Box is a viably safer route many people utilize to safeguard themselves from arrest. I think it's a great idea to use a P.O. Box or UPS Store for any and all anabolic steroid deliveries. Now this is not a foolproof, but it is harder for law enforcement to stake out a P.O. Box to get their hands on you receiving a package. However, it is certainly doable and the many who have been arrested at a Private Mail Box (PMB) can attest to this fact with some vigor. It should be noted that using a PMB reduces the link to search your home because it reduces the nexus between your home and the illegal substances. Clearly a judge will have to decide that your receipt of a package at a PMB is sufficient to be deemed probable cause that you also have steroids in your home; judges tend to use that rationale all the time. Although it may be slight, it is worth the chance that a judge may not conclude that law enforcement has established a link between your home and the PMB. Also, we know that you wonldn't be so stupid as to have steroids in your home while awaiting a package of them right? Be aware though that law enforcement will certainly have a record of all shipments made to your PMB, especially shipments that require a signature, so if you have received 153 items from China in the last week, its likely that a judge will conclude that there is clearly probable cause to also search your home. I still personally use a PMB, and definitely recommend that if you were to order anabolic steroids you ought NEVER to use your home to receive a shipment.

I also never open my package until I get home, because if I am stopped for a traffic violation and subject to a search (which if asked, I would say no, whenever possible to a voluntary search), the package may not be subject to opening without a warrant. SO if you get pulled over for some reason with an open package of anabolics in plain view that package is subject to search and seizure law. On the other hand, if the package is still sealed, it will require a search warrant necessarily based upon probable cause to open.

BC: Ever hear of "The knock and talk"? Wanna explain to my readers what it is?

LX: Of course, yeah, that's a very good question. You see, if the police lack probable cause to search your home, or open a package they may decide to engage you in a typical practice known as the knock and talk. Everyone…the police, postal

inspectors, or even customs agents, can knock on your door and give you an invitation to chat of sorts. Often they will also request entry into your home which seems logical, as you need somewhere to chat, but remember law enforcement is scanning your home visually for evidence which may then allow them to obtain probable cause to search your home. Once law enforcement is in your home they may look for anything in plain view that will give rise to probable cause being merited. The used pin on your counter, the vial crimper on your desk, or the empty vial are all probable cause to search. The Western Union receipt to China, or anything else in "plain view" may also be deemed as this. Your mouth may also give rise to probable cause. We've all seen "Cops" and a million cop movies, and we know that simply stated ANYTHING you say can and may be used against you. If approached for a knock and talk it is best to have temporary amnesia, meaning you don't know anything. In addition, please talk to law enforcement outside, you DO NOT ever have to allow them into your home without a warrant. In this way, cops are basically like vampires…you are powerless once you invite them into your home.

BC: My personal policy is to always tell police or anyone of their kind that I would like a lawyer present if they wish to ask me anything. Not because I have anything to hide, but because a lawyer may help to avoid any miscommunication or misunderstanding during such a dialogue. Admittedly, I've never been taken up on that offer by any government agent trying to ask me questions.

LX: Ha ha…I suspect you wouldn't be taken up on that offer!

BC: Let's talk about Possession versus Distribution. What can you tell me about that?

LX: Penalties for simple possession are often much less substantial than penalties for distribution of a controlled substance, as you may suspect. However, various states are given the levity to enact their own various rules and guidelines regarding controlled substances. Generally the Federal Statute is followed, however, there are many odd variances. For example, in Alaska and Vermont, anabolic steroids are not scheduled! Is anyone moving?

BC: I'm packing my bags after this interview!

LX: Right, well the main idea here is that what is possession in one particular state may actually be distribution in another. The differences if you are charged for possession versus distribution can be highly significant, meaning jail versus no jail, so it is worthy getting very familiar with your state's laws to understand how they classify distribution versus possession. Usually a prosecutor or law enforcement agent will testify as to what they believe is possession versus distribution, usually not a good idea for the end user, since 1000 tabs of dianabol is a common place order on the Internet (a case, usually) , but in almost all legal situations will be considered possession with intent to distribute.

BC: So I'm on the Internet, and seeing all these Anti-ageing Clinics offering doctors prescriptions for lots of goodies: testosterone, growth hormone, etc. Is this legal?

LX: Anabolic steroids are clearly controlled substances as we saw in an earlier question. However, the fact that these hormones are controlled substances does not automatically make them proscribed for what constitutes a "legitimate medical purpose." In fact, most states have enacted statutes regarding what constitutes a

legitimate medical purpose. Most people will seek out a prescription for low testosterone levels, often called HRT (or hormone replacement therapy) and depending on the practitioner it may or may not be granted. Most of the online ageing clinics will probably afford a degree laxness with the dispensing of anabolic steroids for perceived medical purposes, but your general health practitioner will in probably not find it "ethical" to prescribe anabolic steroids to a 25 year-old male who perceives his testosterone to be low because its only mid-range. There have been various prosecutions of doctors who have prescribed anabolic steroids for what is perceived as being outside the bounds of medical usage, so the need for a physician to be leery to dispense anabolic steroids is understandable. Some of these cases even involve doctors prescribing them for wasting conditions, before that was recognizd that they could be useful for that.

Now online doctors may seem quite cavalier in dispensing a prescription for anabolic steroids, and in some cases you even get the medications directly from them! However, these online clinics operate at great risk usually, and this is due to the lack of physical contact between the physician and patient. Both the AMA and DEA have viewed this type of patient-physician relationship as invalid and subject to prosecution.

Of course this can be a valid way to obtain steroids, but just keep all of the preceeding in mind.

BC: So let's say I am getting some steroids sent to me in the mail (because I'm just that type of bad-person who does such things, hypothetically). What should I look out for? What's this "Controlled Delivery" I've heard so much about?

LX: Well, this is a long and difficult topic, but let us make it abbreviated and as simplistic as possible.

BC: Thanks…I'm a simple guy…

LX: Well, The bottom line of a controlled delivery is that the government agency seeking to prosecute you, be it the Postal Inspectors, DEA, FBI, or local law enforcement, want you to accept the package and in doing so thereby retain possession of the package. This is why you are asked to sign for the package in most instances, as it gives them some physical evidence of your having accepted it.

Your signature leads to the presumption that you have now accepted possession and clearly there exists probable cause to believe you have in fact committed a crime. Now comes the fun part; often after you accept the package the government agency usually has already had in its hands what is known as a conditional warrant, which makes it conditional upon your acceptance that your home can now be searched, but I prefer the word raided or ransacked. Although you do not always have to sign for the package, accepting the package affords the same effect to the conditional warrant as signing it does.

BC: So what could I do, in this hypothetical case?

LX: Obviously you should not sign for any package, or signal acceptance of a package if you were not expecting to have to sign for the package or have it hand delivered. This does not get you off the proverbial hook; there have been many

instances where law enforcement has used electronic beacons to signal when a package is open that has been left on someone's door. So you are sitting at home glad to have just received your package in the mail, and get your cycle going, and you did not have to sign for it, nor did you get a hand delivered package, so everything seems great, but then once you open that package, expect a visitor, and not the friendly type…the type with a badge is likely to be showing up. There are a number of nuances here that lead to a longer discussion, such as writing return to sender on the package (which doesn't really work anymore), but this discussion will merit a lot more space and time, and since now you know what a controlled delivery is, and have some information on how it is executed—just avoid it.

BC: Ok, I think we've given everyone a pretty good idea of all of this stuff from a legal perspective. Can I bother you for your personal predictions regarding anabolic steroid usage in the United States from a legal perspective?

LX: Well, it would be my wish to end with good news on this topic. But I feel that the government will continue its ways on outlawing comnpounds that ought to be legal, and making it difficult to obtain anabolics. The bright becon we have is that customs is not able to stop everything, and just like the war on drugs from the 80's, steroids are now (thanks to the government) cheap and easily available. If you get caught with them, you are kind of screwed, but just as the war on drugs did for cocaine in the 80's, the war on steroids has made them cheap, of higher purity, and readily available.

BC: Thanks for your time, LX. I hope we can get together and do this again in the future.

Steroid Listings

By

Generic Name

Generic Name	Trade Name	Dosage	Packaging	Country	Company	Status	Vet
boldenone (blend)	Equilon 100	100 mg/ml	6 ml vial	Myanmar/Burma	WDV		VET
boldenone undecylenate	Ana-Bolde	50 mg/ml	10 ml vial	Argentina	Fort		VET
boldenone undecylenate	Anabolic BD	50 mg/ml	10 ml vial	Australia	SYD Group		VET
boldenone undecylenate	Anabolic BD	100, 200 mg/ml	10 ml vial	Mexico	SYD Group		VET
boldenone undecylenate	Anabolic-BD	100 mg/ml	10 ml vial	Mexico	Grupo Tarasco	[NLM]	VET
boldenone undecylenate	Bold QV 200	200 mg/ml	10 ml vial	Mexico	Quality Vet		VET
boldenone undecylenate	Boldabol	200 mg/ml	10 ml vial	Thailand	British Dragon		
boldenone undecylenate	Boldebal-H	50 mg/ml	10 ml vial	Australia	Ilium/Troy		VET
boldenone undecylenate	Boldenol 25	25 mg/ml	10, 50,100, 250ml vial	Columbia	Comandina		VET
boldenone undecylenate	Boldenol R	50 mg/ml	10, 50, 100, 250ml vial	Columbia	Comandina		VET
boldenone undecylenate	Boldenon	200 mg/ml	10 ml vial	Mexico	Ttokkyo		VET
boldenone undecylenate	Boldenona	50mg/ml	10,20,100 ml vial	Columbia	Biogen		VET
boldenone undecylenate	Boldenona	50 mg/ml	10, 50,100, 250ml vial	Columbia	Vecol		VET
boldenone undecylenate	Boldenona 50	50 mg/ml	10, 50, 100, 250ml vial	Columbia	Servinsumos		VET
boldenone undecylenate	Boldenona 50 Gen-Far	50 mg/ml	10, 50,100,250ml vial	Bolivia	Gen-Far		VET
boldenone undecylenate	Boldenona 50 Gen-Far	50 mg/ml	10, 50,100, 250ml vial	Columbia	Gen-Far		VET
boldenone undecylenate	Boldenona 50 Gen-Far	50 mg/ml	10, 50,100, 250ml vial	Costa Rica	Gen-Far		VET
boldenone undecylenate	Boldenona 50 Gen-Far	50 mg/ml	10, 50, 100, 250ml vial	Dom. Republic	Gen-Far		VET
boldenone undecylenate	Boldenona 50 Gen-Far	50 mg/ml	10,50,100,250ml vial	Ecuador	Gen-Far		VET
boldenone undecylenate	Boldenona 50 Gen-Far	50 mg/ml	10, 50,100, 250ml vial	El Salvador	Gen-Far		VET
boldenone undecylenate	Boldenona 50 Gen-Far	50 mg/ml	10,50,100,250ml vial	Guatemala	Gen-Far		VET
boldenone undecylenate	Boldenona 50 Gen-Far	50 mg/ml	10,50,100, 250ml vial	Honduras	Gen-Far		VET
boldenone undecylenate	Boldenona 50 Gen-Far	50 mg/ml	10, 50,100,250ml vial	Nicaragua	Gen-Far		VET
boldenone undecylenate	Boldenona 50 Gen-Far	50 mg/ml	10, 50,100,250ml vial	Panama	Gen-Far		VET
boldenone undecylenate	Boldenona 50 Gen-Far	50 mg/ml	10,50,100,250ml vial	Peru	Gen-Far		VET
boldenone undecylenate	Boldenone - 50	50 mg/ml	10 ml vial	Australia	Jurox	[NLM]	VET
boldenone undecylenate	Cebulin 50	50 mg/ml	10, 50, 250 ml vial	Columbia	Provet		VET
boldenone undecylenate	Crecibol 50	25 mg/ml	10, 30 ml vial	Mexico	Unimed		VET
boldenone undecylenate	Dynabolin 50	50 mg/ml	10, 50,100,250ml vial	Columbia	Kryovet		VET
boldenone undecylenate	Equifort	50 mg/ml	10, 50 ml vial	Brazil	Purina		VET
boldenone undecylenate	Equi-gan	50 mg/ml	10, 50,100,250 ml vial	Mexico	Tomel		VET
boldenone undecylenate	Equipoise®	50 mg/ml	10, 50 ml vial	Mexico	Fort Dodge		VET
boldenone undecylenate	Equipoise®	50 mg/ml	50 ml vial	U.S.	Fort Dodge		VET
boldenone undecylenate	Equipoise®	25,50 mg/ml	50 ml vial	Canada	Ciba-Geigy	[NLM]	VET
boldenone undecylenate	Equipoise®	25, 50 mg/ml	50 ml vial	Canada	Squibb	[NLM]	VET
boldenone undecylenate	Equipoise®	50 mg/ml	50 ml vial	Canada	Wyeth		VET
boldenone undecylenate	Equipoise®	25, 50 mg/ml	50 ml vial	Mexico	Solvay	[NLM]	VET
boldenone undecylenate	Equipoise®	25, 50 mg/ml	50 ml vial	Mexico	Squibb	[NLM]	VET
boldenone undecylenate	Equipoise®	25. 50 mg/ml	50 ml vial	U.S.	Squibb	[NLM]	VET
boldenone undecylenate	Ex-Pois	50 mg/ml	10 ml vial	Argentina	Agofarma		VET
boldenone undecylenate	Ganabol	50 mg/ml	500 ml vial	Bolivia	Laboratorios VM		VET
boldenone undecylenate	Ganabol	25, 50 mg/ml	10, 50,100, 250ml vial	Bolivia	Laboratories VM		VET
boldenone undecylenate	Ganabol	50 mg/ml	500 ml vial	Chile	Laboratorios VM		VET
boldenone undecylenate	Ganabol	25, 50 mg/ml	10,50, 100, 250ml vial	Chile	Laboratorios VM		VET
boldenone undecylenate	Ganabol	50 mg/ml	500 ml vial	Columbia	Laboratorios VM		VET
boldenone undecylenate	Ganabol	25, 50 mg/ml	10, 50, 100, 250ml vial	Columbia	Laboratorios VM		VET
boldenone undecylenate	Ganabol	50 mg/ml	500 ml vial	Dom. Republic	Laboratorios VM		VET
boldenone undecylenate	Ganabol	25, 50 mg/ml	10, 50, 100. 250ml vial	Dom. Republic	Laboratorios VM		VET

boldenone undecylenate	Ganabol	50 mg/ml	500 ml vial	Ecuador	Laboratorios VM		VET
boldenone undecylenate	Ganabol	25, 50 mg/ml	10, 50, 100, 250ml vial	Ecuador	Laboratorios VM		VET
boldenone undecylenate	Ganabol	50 mg/ml	500 ml vial	El Salvador	Laboratorios VM		VET
boldenone undecylenate	Ganabol	25. 50 mg/ml	10,50, 100, 250ml vial	El Salvador	Laboratorios VM		VET
boldenone undecylenate	Ganabol	50 mg/ml	500 ml vial	Guatemala	Laboratorios VM		VET
boldenone undecylenate	Ganabol	25, 50 mg/ml	10,50, 100, 250ml vial	Guatemala	Laboratories VM		VET
boldenone undecylenate	Ganabol	50 mg/ml	500 ml vial	Honduras	Laboratories VM		VET
boldenone undecylenate	Ganabol	25, 50 mg/ml	10, 50,100, 250ml vial	Honduras	Laboratories VM		VET
boldenone undecylenate	Ganabol	50 mg/ml	500 ml vial	Panama	Laboratories VM		VET
boldenone undecylenate	Ganabol	25, 50 mg/ml	10,50,100. 250ml vial	Panama	Laboratories VM		VET
boldenone undecylenate	Ganabol	50 mg/ml	500 ml vial	Paraguay	Laboratories VM		VET
boldenone undecylenate	Ganabol	25, 50 mg/ml	10, 50,100, 250ml vial	Paraguay	Laboratories VM		VET
boldenone undecylenate	Ganabol	50 mg/ml	500 ml vial	Peru	Laboratories VM		VET
boldenone undecylenate	Ganabol	25, 50 mg/ml	10, 50,100, 250ml vial	Peru	Laboratories VM		VET
boldenone undecylenate	Ganabol	50 mg/ml	500 ml vial	Venezuela	Laboratories VM		VET
boldenone undecylenate	Ganabol	25, 50 mg/ml	10, 50,100, 250ml vial	Venezuela	Laboratories VM		VET
boldenone undecylenate	Maxigan	50 mg/ml	10, 50 ml vial	Mexico	Inpei		VET
boldenone undecylenate	Mitgan 50	50 mg/ml	50 ml vial	Columbia	California		VET
boldenone undecylenate	Porkybol 1%	10 mg/ml	10, 50,100 ml vial	Columbia	Compania California		VET
boldenone undecylenate	Sybolin	25 mg/ml	10 ml vial	Australia	Ranvet		VET
boldenone undecylenate	Ultragan	100 mg/ml	10 ml vial	Mexico	Denkall		VET
boldenone undecylenate	Uttragan	50 mg/ml	50 ml vial	Mexico	Denkall		VET
boldenone undecylenate	Vebonol	25 mg/ml	10 ml vial	Australia	Ciba-Geigy	[NLM]	VET
boldenone undecylenate	Vebonol	25 mg/ml	10 ml vial	Germany	Ciba-Geigy		VET
boldenone undecylenate	Vebonol	25 mg/ml	10 ml vial	Switzerland	Ciba-Geigy	[NLM]	VET
dostebol acetate	Alfa-Trofodermin	.5% gel	n/a	Italy	Farmitalia	[NLM]	
clostebol acetate	Alfa-Trofbdermin	.5% gel	n/a	Italy	Pharmacia & Upjohn		
clostebol acetate	Megagrisevit-Mono	15 mg dragee	30 dragee box	Germany	Pharmacia	[NLM]	
clostebol acetate	Megagrisevit-Mono	10mg/1.5ml	1.5 ml vial	Germany	Pharmacia	[NLM]	
clostebol acetate	Steranabol	20 mg/ml	2 ml ampule	Italy	Farmitalia	[NLM]	
clostebol acetate	Trofbdermin Crema	cream	30 gram tube	Italy	Carlo Erba OTC		
clostebol acetate	Trofbdermin Spray	n/a	30 ml spray	Italy	Carto Erba OTC		
dihydrotestosterone	Andractim	25mg/g	80 gram gel	Belgium	Piette		
dihydrotestosterone	Andractim	25mg/g	100 gram gel	France	Besins-Iscovesco		
dihydrotestosterone	Andractim	25mg/g	100 gram gel	India	Chemec		
dihydrotestosterone	Andractim	25mg/g	80 gram gel	Korea	n/a		
dihydrotestosterone	Andractim	25mg/g	80 gram gel	Uruguay	Servimedic		
drostanolone	Dromostan	50 mg/ml	5 ml vial	Philippines	Xelox (export)		
drostanolone propionate	Drolban	50mg/1ml	1 ml vial	U.S.	Lilly	[NLM]	
drostanolone propionate	Masterid	100 mg/2ml	2 ml amp	Germany	Gruenthal	[NLM]	
drostanolone propionate	Masteril	100 mg/2ml	2 ml ampule	Bulgaria	Syntex	[NLM]	
drostanolone propionate	Masteril	100 mg/2ml	2 ml amp	United Kingdom	Syntex	[NLM]	
drostanolone propionate	Masteron	100 mg/2ml	2 ml amp	Belgium	Sarva-Syntex	[NLM]	
drostanolone propionate	Masteron	100 mg/2ml	2 ml amp	Portugal	Cilag	[NLM]	
drostanolone propionate	Mastisol	5% injection sol.	n/a	Japan	Shionogi	[NLM]	
drostanolone propionate	Metormon	100 mg/2ml	2 ml amp	Spain	Syntex	[NLM]	
drostanolone propionate	Permastril	100 mg/2ml	2 ml ampule	France	Cassenne	[NLM]	
ethylestrenol	Maxibolin	2 mg tablet	n/a	U.S.	Organon	[NLM]	
ethylestrenol	Maxibolin Elixir	2mg/5ml	n/a	U.S.	Organon	[NLM]	

ethylestrenol	Nandoral	.5 mg tablet	100, 500 tablet bottle	Australia	Intervet		VET
ethylestrenol	Nitrotain	15mg/4gram	60, 250,1000 gram tube	Australia	Nature-Vet		VET
ethylestrenol	Orabol-H	100 mg/5g paste	30 ml plastic tube	Australia	Vetsearch	[NLM]	VET
ethylestrenol	Orabolin®	2 mg tablet	n/a	Belgium	Organon	[NLM]	
ethylestrenol	Orabolin®	2 mg tablet	10 tablet box	India	Infar		
ethylestrenol	Orabolin®	2 mg tablet	100 tablet box	Pakistan	Organon		
ethylestrenol	Orabolin®	2 mg tablet	n/a	South Africa	Donmed/Organon	[NLM]	
ethylestrenol	Orabolin®	2 mg tablet	n/a	United Kingdom	Organon	[NLM]	
ethylestrenol	Orgabolin	2 mg tablet	n/a	Indonesia	Organon		
ethytestrenol	Orgabolin	2 mg tablet	n/a	Netherlands	Organon	[NLM]	
ethytestrenol	Orgabolin	2 mg tablet	n/a	Turkey	Santa	[NLM]	
ethytestrenol	Orgabolin Drops	2mg	n/a	Turkey	Santa	[NLM]	
ethytestrenol	Silabolin	25. 50 mg/ml	1 ml ampule	Russia	Farmadon	[NLM]	
fluoxymesterone	Android-F	10mg tablet	100 tablet bottle	U.S.	Brown	[NLM]	
fluoxymesterone	Baojen	5 mg capsule	n/a	Taiwan	Ta Fong		
fluoxymesterone	Chinglicosan	5 mg capsule	n/a	Taiwan	Ciiphar		
fluoxymesterone	Ferona	1 mg tablet	30 tablet box	Argentina	Sidus		
fluoxymesterone	Fluoxymesterone cap	5 mg capsule	n/a	Taiwan	Yuan Chou		
fluoxymesterone	Floxymesterone	5 mg capsule	n/a	Taiwan	Chen Ho		
fluoxymesterone	Fluoxymesterone	10mg tablet	100 tablet bottle	U.S.	Rosemont		
fluoxymesterone	Fosteron	5 mg capsule	n/a	Taiwan	Health Chemical		
fluoxymesterone	Fu Lao Shu	10 mg capsule	n/a	Taiwan	Ming Ta		
fluoxymesterone	Fuloan	11 mg capsule	n/a	Taiwan	New Chem & Pharm		
fluoxymesterone	Halotestin®	5 mg tablet	50 tablet bottle	Canada	Pharmacia		
fluoxymesterone	Halotestin®	5 mg tablet	n/a	Denmark	Upjohn	[NLM]	
fluoxymesterone	Halotestin®	5 mg tablet	n/a	Finland	Upjohn		
fluoxymesterone	Halotestin®	5 mg tablet	n/a	France	Pharmacia-Upjohn	[NLM]	
fluoxymesterone	Halotestin®	5 mg tablet	20 tablet box	Greece	Upjohn		
fluoxymesterone	Halotestin®	5 mg tablet	20 tablet box	Italy	Upjohn	[NLM]	
fluoxymesterone	Halotestin®	2, 5 mg tablet	n/a	Japan	n/a		
fluoxymesterone	Halotestin®	5 mg tablet	n/a	Netherlands	Upjohn	[NLM]	
fluoxymesterone	Halotestin®	5 mg tablet	n/a	Norway	Upjohn	[NLM]	
fluoxymesterone	Halotestin®	5 mg tablet	n/a	Philippines	Pharmacia & Upjohn		
fluoxymesterone	Halotestin®	5 mg tablet	n/a	Sweden	Upjohn	[NLM]	
fluoxymesterone	Halotestin®	5 mg tablet	100 tablet bottle	Thailand	Pharmacia		
fluoxymesterone	Halotestin®	2,5,10 mg tablet	100 tablet bottle	U.S.	Pharmacia & Upjohn		
fluoxymesterone	Halotestin®	10mg tablet	100 tablet bottle	U.S.	Wamer-Chilcott	[NLM]	
fluoxymesterone	Halotestin®	5 mg tablet	n/a	YugoslaviaFRMR	Galenika	[NLM]	
fluoxymesterone	Hysterone	20 mg tablet	100 tablet bottle	U.S.	Major	[NLM]	
fluoxymesterone	Lipaw	10 mg capsule	n/a	Taiwan	Long Der		
fluoxymesterone	Long	10mg capsule	n/a	Taiwan	Century		
fluoxymesterone	ODK	5 mg capsule	n/a	Taiwan	Winston		
fluoxymesterone	Oralsterone	5 mg capsule	n/a	Taiwan	Long Der		
fluoxymesterone	Ora-Testryl	5 mg tablet	100 tablet bottle	U.S.	Squibb Mark	[NLM]	
fluoxymesterone	Sidomon	5 mg capsule	n/a	Taiwan	n/a		
fluoxymesterone	Stenox	2.5 mg tablet	20 tablet box	Mexico	Atlantis		
fluoxymesterone	Tealigen	5 mg capsule	n/a	Taiwan	Ming ta		
fluoxymesterone	Ton Lin	10mg capsule	n/a	Taiwan	Chin Teng		
fluoxymesterone	Ultandren	1,5 mg tablet	n/a	United Kingdom	Ciba	[NLM]	

fluoxymesterone	Vewon	5 mg tablet	n/a	Taiwan	Yung Shin		
fluoxymesterone	Vi Jane	10mg capsule	n/a	Taiwan	Shyh Sar		
fluoxymesterone	Waromom	5 mg tablet	n/a	Taiwan	Washington		
formebolone	Esiclene	1 mg drops	n/a	Italy	LPB	[NLM]	
formebolone	Esiclene	2 mg/ml	2 ml ampule	Italy	LPB	[NLM]	
formebolone	Esiclene	5 mg tablet	n/a	Italy	LPB	[NLM]	
formebolone	Esiclene	1 mg drops	n/a	Portugal	Biofarma	[NLM]	
formebolone	Esiclene	5 mg tablet	n/a	Portugal	Biofarma	[NLM]	
formebolone	Hubernol	5 mg dragee	n/a	Spain	ICN Hubber	[NLM]	
formebolone	Hubernol	1 mg drops	n/a	Spain	ICN Hubber	[NLM]	
furazabol	Miotolan	1 mg tablet	n/a	Japan	Daiichi Seiyaku	[NLM]	
mesterolone	Mesterolon	25 mg tablet	n/a	Philippines	Brown & Burk		
mesterolone	Mesterolon	25 mg tablet	n/a	Sweden	Schering	[NLM]	
mesterolone	Mestoranum	25 mg tablet	n/a	Denmark	Schering		
mesterolone	Mestoranum	25 mg tablet	n/a	Norway	Sobering	[NLM]	
mesterolone	Pluriviron	25 mg dragee	30 dragee box	Germany	Asche	[NLM]	
mesterolone	Proviron	25 mg tablet	20 tablet box	Algeria	Schering		
mesterolone	Proviron	25 mg tablet	50 tablet box	Taiwan	Schering		
mesterolone	Proviron	25 mg tablet	20 tablet box	Turkey	Schering		
mesterolone	Proviron®	25 mg tablet	n/a	Argentina	Schering		
mesterolone	Proviron®	25, 50 mg tablet	n/a	Australia	Schering		
mesterolone	Proviron®	25 mg tablet	50 tablet bottle	Austria	Schering		
mesterolone	Proviron®	25 mg tablet	50 tablet bottle	Belgium	Schering		
mesterolone	Proviron®	25 mg tablet	20 tablet box	Brazil	Schering		
mesterolone	Proviron®	25 mg tablet	20, 50 tablet box	Bulgaria	Schering		
mesterolone	Proviron®	25 mg tablet	20 tablet box	Colombia	Schering		
mesterolone	Proviron®	25 mg tablet	n/a	Costa Rica	Schering		
mesterolone	Proviron®	25 mg tablet	20 tablet box	Croatia	Schering		
mesterolone	Proviron®	25 mg tablet	20, 50 tablet box	Czech. Rep.	Schering		
mesterolone	Proviron®	25 mg tablet	20 tablet bottle	Dom. Rep.	Schering		
mesterolone	Proviron®	25 mg tablet	20 tablet box	Egypt	Schering/CID	[NLM]	
mesterolone	Proviron®	25 mg tablet	n/a	El Salvador	Schering		
mesterolone	Proviron®	25 mg tablet	20 tablet box	Estonia	Schering	[NLM]	
mesterolone	Proviron®	25 mg tablet	n/a	Finland	Leiras		
mesterolone	Proviron®	25 mg tablet	n/a	France	Schering	[NLM]	
mesterolone	Proviron®	25 mg tablet	50 tablet bottle	Germany	Schering	[NLM]	
mesterolone	Proviron®	25 mg tablet	20 tablet bottle	Greece	Schering		
mesterolone	Proviron®	25 mg tablet	n/a	Guatemala	Schering		
mesterolone	Proviron®	25 mg tablet	n/a	Honduras	Schering		
mesterolone	Proviron®	25 mg tablet	10, 15, 20, 50, 100, 150 tab bottle	Hungary	Schering		
mesterolone	Proviron®	25 mg tablet	30 tablet box	India	Schering		
mesterolone	Proviron®	25 mg tablet	n/a	Indonesia	Schering		
mesterolone	Proviron®	25 mg tablet	20, 50 tablet box	Israel	Schering		
mesterolone	Proviron®	25 mg tablet	20 tablet box	Italy	Schering		
mesterolone	Proviron®	25 mg tablet	20 tablet box	Latvia	Schering	[NLM]	
mesterolone	Proviron®	25 mg tablet	20 tablet box	Lithuania	Schering	[NLM]	
mesterolone	Proviron®	25 mg tablet	10 tablet box	Mexico	Schering		
mesterolone	Proviron®	25 mg tablet	50 tablet bottle	Netherlands	Schering		
mesterolone	Proviron®	25 mg tablet	n/a	Nicaragua	Schering		

mesterolone	Proviron®	25 mg tablet	n/a	Panama	Schering		
mesterolone	Proviron®	25 mg tablet	20 tablet box	Paraguay	Schering		
mesterolone	Proviron®	25 mg tablet	20 tablet box	Poland	Schering		
mesterolone	Proviron®	25 mg tablet	20 tablet box	Portugal	Schering		
mesterolone	Proviron®	25 mg tablet	20 tablet bottle	Russia	Schering		
mesterolone	Proviron®	25 mg tablet	20, 50 tablet bottle	Slovakia	Schering		
mesterolone	Proviron®	25 mg tablet	20, 100 tablet bottle	South Africa	Schering/Beriimed		
mesterolone	Proviron®	25 mg tablet	20 tablet box	Spain	Schering		
mesterolone	Proviron®	25 mg tablet	n/a	Switzerland	Schering	[NLM]	
mesterolone	Proviron®	25 mg tablet	20 tablet box	Ukraine	Schering		
mesterolone	Proviron®	25 mg tablet	30 tablet box	United Kingdom	Schering		
mesterolone	Proviron®	25 mg tablet	n/a	Uruguay	Schering		
mesterolone	Proviron®	25 mg tablet	15 tablet box	Venezuela	Schering		
mesterolone	Proviron®	25 mg tablet	n/a	Yugoslavia FRMR	Alkoid		
mesterolone	Provironum	25 mg tablet	50 tablet box	Singapore	Organon		
mesterolone	Provironum	25 mg tablet	150 tablet box	Thailand	Schering		
mesterolone	Restore	25 mg tablet	20 tablet box	India	Brown & Burk		
mesterolone	Vistimon	25 mg tablet	20 tablet box	Germany	Jenapharm	[NLM]	
mesterolone	Vistimon	25 mg tablet	n/a	Korea	n/a		
mesterolone	Vistimon	25 mg tablet	30 tablet box	Taiwan	Jenapharm		
methandrostenolone	Ammipire	5 mg tablet	1000 tablet bottle	Thailand	Ammipire		
methandrostenolone	Anabol	50 mg tablet	n/a	Thailand	British Dragon	[NLM]	
methandrostenolone	Anabol Tablets	5 mg tablet	1000 tablet bottte	Thailand	British Dispensary		
methandrostenolone	Anabol Tablets	5 mg tablet	1000 tablet bottle	Thailand	L.P Standard	[NLM]	
methandrostenolone	Anabolex	3 mg tablet	100 tablet box	Dom. Rep.	Ethical		
methandrostenolone	Anabolikum 2.5%	25mg/ml	50 ml vial	Germany	Meca G	[NLM]	VET
methandrostenolone	Anabolin	5 mg tablet	n/a	Finland	Leiras	[NLM]	
methandrostenolone	Anabolin	0.5% cream	n/a	Finland	Leiras	[NLM]	
methandrostenolone	Anabol-Jet	25mg/ml	30,100, 250 ml vial	Mexico	Norvet		VET
methandrostenolone	Anabol-Jet ADE	30mg/ml	100,250 ml vial	Mexico	Norvet		VET
methandrostenolone	Anabol-Pets	10.25 mg tablet	200 tablet bottle	Mexico	Norvet		VET
methandrostenolone	Andoredan	5 mg tablet	n/a	Japan	Takeshima-Kodama	[NLM]	
methandrostenolone	Bionabol	*2,* 5 mg tab	40 tablet box	Bulgaria	Balkanpharma		
methandrostenolone	Bionabol	2 mg tablet	40 tablet bottle	Bulgaria	Pharmacia	[NLM]	
methandrostenolone	Bionabol	5mg tab	40 tablet bottle	Bulgaria	Pharmacia	[NLM]	
methandrostenolone	Chinlipan Tab	2 mg tablet	n/a	Taiwan	Chin Tien		
methandrostenolone	Danabol OS	10mg tablet	500 tablet bottle	Thailand	Body Research		
methandrostenolone	D-Bol	10mg tablet	100 tablet bottle	Mexico	Denkall		VET
methandrostenolone	D-Bol	10mg capsule	96 capsule box	Mexico	Denkall		VET
methandrostenolone	D-Bol	10mg capsule	300 capsule bottle	Mexico	Denkall		VET
methandrostenolone	D-Bol	25mg/ml	10 ml vial	Mexico	Denkall		VET
methandrostenolone	Dialone	5 mg tablet	100 tablet bottle	U.S.	Major	[NLM]	
methandrostenolone	Dianabol	10mg tablet	100 tablet bottle	Mexico	Salud		VET
methandrostenolone	Dianabol	25 mg/ml	10,50,100 ml vial	Mexico	Salud		VET
methandrostenolone	Dianabol	25 mg tablet	30 tablet bottle	Belize	Planet Pharmacy		
methandrostenolone	Dianabol	5 mg tablet	100 tablet bottle	Germany	Ciba	[NLM]	
methandrostenolone	Dianabol	5 mg tablet	100 tablet bottle	U.S.	Ciba	[NLM]	
methandrostenolone	Dianabol	5 mg tablet	100 tablet bottle	United Kingdom	Ciba	[NLM]	
methandrostenolone	Encephan	5 mg tablet	n/a	Japan	Sato	[NLM]	

methandrostenolone	Ganabol	25 mg/ml	50 ml vial	Mexico	Salud	[NLM]	VET
methandrostenolone	Melic	5 mg tablet	1000 tablet box, bottle	Thailand	Phanmasant		
methandrostenolone	Metaboline	2 mg tablet	60, 500 tablet bottle	Canada	Desbergers	[NLM]	
methandrostenolone	Metanabol	5 mg tablet	20 tablet box	Poland	Jelfa		
methandrostenolone	Metanabol	5 mg tablet	20 tablet box	Poland	Polfa	[NLM]	
methandrostenolone	Metanabol	I mg tablet	20 tablet box	Poland	Polfa	[NLM]	
methandrostenolone	Metanabol	0.5% cream	n/a	Poland	Polfa	[NLM]	
methandrostenolone	Metandiabol	25 mg/ml	50 ml vial	Mexico	Quimper		VET
methandrostenolone	Metandienon	5 mg tablet	100 tablet box	Russia	Bioreaktor		
methandrostenolone	Metandrol 10	10mg tablet	500 tablet bottle	Mexico	Bratis Labs		VET
methandrostenolone	Metandrostenolon	5 mg tablet	100 tablet box	Russia	Akrihin	[NLM]	
methandrostenolone	Metandrostenolon	5 mg tablet	100 tablet box	Russia	Akrikhin		
methandrostenolone	Metandrostenolon	5 mg tablet	100 tablet box	Russia	Bioreaktor	[NLM]	
methandrostenolone	Methanabol	5 mg tablet	500 tablet pouch	Thailand	British Dragon		
methandrostenolone	Methanabol	50 mg tablet	100 tablet pouch	Thailand	British Dragon		
methandrostenolone	Methandienone	5, 10mg tablet	100,1000 tablet bottle	Mexico	Ttokkyo		VET
methandrostenolone	Methandon	5 mg tablet	1000 tablet bottle	Thailand	Acdhon Co.		
methandrostenolone	Naposim	5 mg tablet	20 tablet box	Rumania	Terapia		
methandrostenolone	Neo-Anabolene	5 mg tablet	10 tablet strip	Indonesia	Haurus		
methandrostenolone	Nerobol	5 mg tablet	20 tablet box	Bulgaria	Gedeon Richter	[NLM]	
methandrostenolone	Nerobol	5 mg tablet	20 tablet box	Hungary	Gedeon Richter	[NLM]	
methandrostenolone	Nerobol	5 mg tablet	20 tablet box	Yugoslavia/FRMR	Galenika	[NLM]	
methandrostenolone	Pronabol-5	5 mg tablet	100 tablet box	India	P&B Labs	[NLM]	
methandrostenolone	Reforvit	25 mg tab	100, 300 tablet bottle	Mexico	Loeffler		VET
methandrostenolone	Reforvit-B	25mg/ml	10, 50ml	Mexico	Loeffler		VET
methandrostenolone	Restauvit	2 mg tablet	n/a	Mexico	Ciba, Rugby	[NLM]	
methandrostenolone	Stenolon	5 mg tablet	20 tablet box	Czech. Rep.	Leciva	[NLM]	
methandrostenolone	Stenolon	1 mg tablet	20 tablet box	Czech. Rep.	Leciva	[NLM]	
methandrostenolone	Trinergic	5 mg capsule	n/a	India	Unimed	[NLM]	
methandrostenolone/stanozolol	Diosterol	50 mg tablet	30 tablet bottle	Belize	Planet Pharmacy		
methenolone acetate	Metabolon 25	25 mg tablet	100 tablet bottle	Mexico	Bratis Labs		VET
methenolone acetate	Primobolan®	5 mg tablet	n/a	Austria	Schering	[NLM]	
methenolone acetate	Primobolan®	5 mg tablet	n/a	Belgium	Schering	[NLM]	
methenolone acetate	Primobolan®	5 mg tablet	n/a	Bolivia	Schering	[NLM]	
methenolone acetate	Primobolan®	5 mg tablet	n/a	Costa Rica	Schering	[NLM]	
methenolone acetate	Primobolan®	5 mg tablet	n/a	Dom. Rep.	Schering	[NLM]	
methenolone acetate	Primobolan®	5 mg tablet	n/a	Ecuador	Schering	[NLM]	
methenolone acetate	Primobolan®	5 mg tablet	n/a	El Salvador	Schering	[NLM]	
methenolone acetate	Primobolan®	50 mg tablet	n/a	France	Schering	[NLM]	
methenolone acetate	Primobolan®	5 mg tablet	n/a	Germany	Schering	[NLM]	
methenolone acetate	Primobolan®	5 mg tablet	n/a	Guatemala	Schering	[NLM]	
methenolone acetate	Primobolan®	5 mg tablet	n/a	Honduras	Schering	[NLM]	
methenolone acetate	Primobolan®	5 mg tablet	100,1000 tablet box	Japan	Schering		
methenolone acetate	Primobolan®	5 mg tablet	n/a	Mexico	Schering	[NLM]	
methenolone acetate	Primobolan®	5 mg tablet	n/a	Nicaragua	Schering	[NLM]	
methenolone acetate	Primobolan®	5 mg tablet	n/a	Panama	Schering	[NLM]	
methenolone acetate	Primobolan®	5 mg tablet	n/a	South Africa	Schering/Berlimed	[NLM]	
methenolone acetate	Primobolan® Acetate	25 mg/ml	1 ml ampule	Germany	Schering	[NLM]	
methenolone acetate	Primobolan® S	25 mg tablet	n/a	Finland	Leiras	[NLM]	

methenolone acetate	Primobolan® S	25 mg tablet	n/a	Germany	Schering	[NLM]	
methenolone acetate	Primobolan® S	25 mg tablet	n/a	Netherlands	Schering	[NLM]	
methenolone acetate	Primobolan® S	25 mg tablet	50 tablet bottle	South Africa	Schering/Berlimed		
methenolone acetate	Primobolan® S	25 mg tablet	n/a	Thailand	Schering	[NLM]	
methenolone acetate	Primo-Plus 50	50 mg tablet	100 tablet bottle	Mexico	Ttokkyo		VET
methenolone enanthate	Primobolan Depot	100 mg/ml	1 ml ampule	Egypt	Schering/CID	[NLM]	
methenolone enanthate	Primobolan® Depot	100 mg/ml	1 ml ampule	Austria	Schering	[NLM]	
methenolone enanthate	Primobolan® Depot	100 mg/ml	1 ml ampule	Belgium	Schering	[NLM]	
methenolone enanthate	Primobolan® Depot	100 mg/ml	1 ml ampule	Czech. Rep.	Schering	[NLM]	
methenolone enanthate	Primobolan® Depot	100 mg/ml	1 ml ampule	Ecuador	Schering		
methenolone enanthate	Primobolan® Depot	100 mg/ml	1 ml ampule	France	Schering	[NLM]	
methenolone enanthate	Primobolan® Depot	100 mg/ml	1 ml ampule	Germany	Schering	[NLM]	
methenolone enanthate	Primobolan® Depot	100 mg/ml	1 ml ampule	Greece	Schering	[NLM]	
methenolone enanthate	Primobolan® Depot	100 mg/ml	1 ml ampule	Guatemala	Schering		
methenolone enanthate	Primobolan® Depot	100 mg/ml	1 ml ampule	Italy	Schering	[NLM]	
methenolone enanthate	Primobolan® Depot	50 mg/ml	1 ml ampule	Japan	Schering	[NLM]	
methenolone enanthate	Primobolan® Depot	100 mg/ml	1 ml ampule	Japan	Schering		
methenolone enanthate	Primobolan® Depot	50 mg/ml	1 ml ampule	Mexico	Schering		
methenolone enanthate	Primobolan® Depot	100 mg/ml	1 ml ampule	Paraguay	Schering		
methenolone enanthate	Primobolan® Depot	100 mg/ml	1 ml ampule	Portugal	Schering	[NLM]	
methenolone enanthate	Primobolan® Depot	100 mg/ml	1 ml ampule	South Africa	Schering/Berlimed	[NLM]	
methenolone enanthate	Primobolan® Depot	100 mg/ml	1 ml ampule	Spain	Schering		
methenolone enanthate	Primobolan® Depot	100 mg/ml	1 ml ampule	Switzerland	Schering	[NLM]	
methenolone enanthate	Primobolan® Depot	100 mg/ml	1 ml ampule	Turkey	Schering		
methenolone enanthate	Primobolan® Depot mite	50 mg/ml	1 ml ampule	Germany	Schering	[NLM]	
methyltestosterone	Oreton Methyl	10 mg sub. tablet	n/a	U.S.	Schering	[NLM]	
methyltestosterone	T. Lingvalete	5 mg sub. dragee	n/a	YugoslaviaFRMR	Gatenika	[NLM]	
methyltestosterone	Testo Tab	25 mg tablet	n/a	Korea	Samil		
methyltestosterone	Teston	25 mg tablet	30 tablet box	Greece	Remek		
methyltestosterone	Testopropon	25 mg tablet	n/a	Malaysia	Scanpharm		
methyltestosterone	Testormon	10mg tablet	n/a	Portugal	Unitas		
methyltestosterone	Testosteron	5 mg tablet	n/a	Germany	Berco	[NLM]	
methyltestosterone	Testosure	n/a	n/a	Hong Kong	Europharm		
methyltestosterone	Testovis	10mg tablet	n/a	Italy	SIT		
methyltestosterone	Testoyohim	25 mg dragee	30 dragee box	Germany	Paul Mehner	[NLM]	
methyltestosterone	Testred	10mg capsule	100 capsule bottle	U.S.	ICN		
methyltestosterone	TP Men Hormone	10mg capsule	24 tablets	Thailand	TP Drugs		
methyltestosterone	Virilon (time released)	10 mg capsule	100,1000 capsule bottle	U.S.	Star		
mibolerone	Cheque Drops	100 meg/ml	55 mg bottle	U.S.	Upjohn	[NLM]	VET
mibolerone	mibolerone drops	100 meg/ml	55 mg bottle	U.S.	Wedgewood		VET
nandrolone (blend)	Dinandrol	100mg/ml	2 ml vial	Philippines	Xelox (export)		
nandrolone cyclohexylpropionate	Sanabolicum	25, 50 mg/ml	1 ml ampule	Egypt	Biochemie/Nile		
nandrolone cyclohexylpropionate	Sanabolicum-Vet	50mg/ml	10 ml vial	Austria	Werfft-Chemie		VET
nandrolone cypionate	Anabolic DN	50 mg/ml	10 ml vial	Australia	SYD Group		VET
nandrolone cypionate	Anabolic DN	50, 300 mg/ml	10 ml vial	Mexico	SYD Group		VET
nandrolone cypionate	Anabolic-DN	50 mg/ml	10 ml vial	Mexico	Grupo Tarasco	[NLM]	VET
nandrolone cypionate	Dynabol	50 mg/ml	10ml vial	Australia	Jurox	[NLM]	VET
nandrolone decanoate	Anabolicum	25 mg/ml	10, 50 ml vial	Germany	Bela-Pharm		VET
nandrolone decanoate	Anabolin Forte	50 mg/ml	10 ml vial	Netherlands	Alfasan		VET

nandrolone decanoate	Anabolin Forte	50 mg/ml	10 ml vial	Rumania	Alfasan		VET
nandrolone decanoate	Anabolin Forte	50 mg/ml	10,50 ml vial	Spain	Alfasan		VET
nandrolone decanoate	Anaboline Depot	50 mg/ml	1 ml	Greece	Adeteo		
nandrolone decanoate	Anaprolina	25, 50 mg/ml	1 ml ampule	Chile	Silesia		
nandrolone decanoate	Androlone-D 200	200 mg/ml	1 ml	U.S.	Keene	[NLM]	
nandrolone decanoate	Canoate Inj	25, 50 mg/ml	n/a	Korea	n/a		
nandrolone decanoate	Deca QV 200	200 mg/ml	10, 50 ml vial	Mexico	Quality Vet		VET
nandrolone decanoate	Deca QV 300	300 mg/ml	10 ml vial	Mexico	Quality Vet		VET
nandrolone decanoate	Deca-Dubol-100	100 mg/ml	2 ml vial	India	BM Pharmaceuticals		
nandrolone decanoate	Deca-Durabolin®	25, 50 mg/ml	1 ml	Argentina	Organon		
nandrolone decanoate	Deca-Durabolin®	50 mg/ml	2ml	Argentina	Organon		
nandrolone decanoate	Deca-Durabolin®	25 mg/ml	1 ml	Austria	Organon	[NLM]	
nandrolone decanoate	Deca-Durabolin®	25, 50 mg/ml	1 ml ampule, syringe	Belgium	Organon		
nandrolone decanoate	Deca-Durabolin®	25, 50 mg/ml	1 ml ampule	Brazil	Organon		
nandrolone decanoate	Deca-Durabolin®	25, 50 mg/ml	1 ml ampule	Bulgaria	Organon		
nandrolone decanoate	Deca-Durabolin®	50 mg/ml	2ml	Canada	Organon	[NLM]	
nandrolone decanoate	Deca-Durabolin®	100 mg/ml	2ml	Canada	Organon		
nandrolone decanoate	Deca-Durabolin®	25, 50,100 mg/ml	1 ml ampule	Chile	Organon		
nandrolone decanoate	Deca-Durabolin®	25, 50 mg/ml	1 ml ampule	Colombia	Organon		
nandrolone decanoate	Deca-Durabolin®	25, 50 mg/ml	1 ml	Denmark	Organon	[NLM]	
nandrolone decanoate	Deca-Durabolin®	25, 50 mg/ml	1 ml ampule	Egypt	Organon/Nile		
nandrolone decanoate	Deca-Durabolin®	25, 50 mg/ml	1 ml	Finland	Organon		
nandrolone decanoate	Deca-Durabolin®	100 mg/ml	1, 2ml	Finland	Organon		
nandrolone decanoate	Deca-Durabolin®	50 mg/ml	1 ml	France	Organon	[NLM]	
nandrolone decanoate	Deca-Durabolin®	25, 50 mg/ml	1 ml	Germany	Organon	[NLM]	
nandrolone decanoate	Deca-Durabolin®	50 mg/ml	1 ml vial	Greece	Organon		
nandrolone decanoate	Deca-Durabolin®	100 mg/ml	2 ml vial	Greece	Organon		
nandrolone decanoate	Deca-Durabolin®	100 mg/ml	2 ml vial	Greece	Organon		
nandrolone decanoate	Deca-Durabolin®	25,50, 100 mg/ml	1 ml ampule	India	Infar		
methenolone enanthate	Primo-Plus 100	100mg/ml	1 ml ampule	Mexico	Ttokkyo		VET
methylandrostenediol	Andris	10mg tablet	n/a	Greece	Chifar	[NLM]	
methylandrostenediol	Methyldiol	2 mg tablet	n/a	U.S.	Vortech	[NLM]	
methylandrostenediol	Methyldiol Aqueous	50mg/ml	n/a	U.S.	Vortech	[NLM]	
methylandrostenediol	Metyandrostendiol	10, 25 mg tablet	n/a	Poland	Jelfa	[NLM]	
methylandrostenediol	Novandrol	10, 25 mg dragee	n/a	Yugoslavia/FRMR	Galenika	[NLM]	
methylandrostenediol (blend)	Anabolic NA	75mg/ml	10 ml vial	Australia	SYD Group		VET
methylandrostenediol (blend)	Anabolic NA	75mg/ml	10 ml vial	Mexico	SYD Group		VET
methylandrostenediol (blend)	Anabolic-NA	75 mg/ml	10 ml vial	Mexico	Grupo Tarasco	[NLM]	VET
methylandrostenediol (blend)	Drive	55mg/ml	10 ml vial	Australia	RWR		VET
methylandrostenediol (blend)	Filybol	70 mg/ml	10, 20 ml vial	Australia	Ranvet		VET
methylandrostenediol (blend)	libriol	75 mg/ml	10, 20 ml vial	Australia	RWR		VET
methylandrostenediol (blend)	Spectriol	65 mg/ml	10 ml vial	Australia	RWR		VET
methylandrostenediol (blend)	Tribolin	75 mg/ml	10, 20 ml vial	Australia	Ranvet		VET
Methandriol Dipropionate	Methandriol Dipropionate	75mg/ml	10ml vial	Thailand	British Dragon		
methylandrostenediol dipropionate	Anadiol	5mg tab	10, 100 tablet bottle	Australia	Ilium/Troy		VET
methylandrostenediol dipropionate	Anadiol Depot	75 mg/ml	10 ml vial	Australia	Ilium/Troy		VET
methylandrostenediol dipropionate	Arbolic	50 mg/ml	n/a	U.S.	Burgin Arden	[NLM]	
methylandrostenediol dipropionate	Crestabolic	50 mg/ml	n/a	U.S.	Nutrition	[NLM]	
methylandrostenediol dipropionate	Denkadiol	75 mg/ml	10 ml vial	Mexico	Denkall		VET

methylandrostenediol dipropionate	Durandrol	50 mg/ml	n/a	U.S.	Pharmex	[NLM]	
methylandrostenediol dipropionate	Hybolin	50 mg/ml	n/a	U.S.	Hyrex	[NLM]	
methylandrostenediol dipropionate	Methandriol	75 mg/ml	10 ml vial	Australia	Ilium/Troy	[NLM]	VET
methylandrostenediol dipropionate	Methasus 50	50 mg/ml	20 ml vial	Australia	Jurox	[NLM]	VET
methylandrostenediol dipropionate	Protabol	75 mg/ml	10 ml vial	Australia	Protabol		VET
methylandrostenediol dipropionate	Superbolin	75 mg/ml	10 ml vial	Australia	Vetsearch		VET
methyltestosterone	Afro	25 mg tablet	40 tablet box	Turkey	Casel		
methyltestosterone	Agovirin	10 mg dragee	100 dragee bottle	Czech. Rep.	Leciva	[NLM]	
methyltestosterone	Android	5, 10,25 mg tablet	60 tablet bottle	U.S.	ICN Pharm		
methyltestosterone	Android	5, 10, 25 mg tablet	n/a	U.S.	Brown	[NLM]	
methyltestosterone	Androral	10mg tablet	n/a	Hungary	Gedeon Richter		
methyltestosterone	Arcosterone	10 mg	n/a	U.S.	Acrum	[NLM]	
methyltestosterone	Arcosterone	10, 25 mg tablet	n/a	U.S.	Acrum	[NLM]	
methyltestosterone	Debosteron	n/a	n/a	Korea	n/a		
methyltestosterone	Gen Tabs	2 mg tablet	50, 200 tablet bottle	Canada	Vetcom		VET
methyltestosterone	Glando Stridox	10mg tablet	20 tablet box	Uruguay	Ion		
methyltestosterone	Hormobin	5 mg tablet	40 tablet box	Turkey	Munrin Sahin		
methyltestosterone	KangJungBing	n/a	n/a	Korea	n/a		
methyltestosterone	Longivol (plus estrogen)	1 mg tablet	n/a	Spain	Medical S.A.		
methyltestosterone	Mediatric	10mg tablet	n/a	U.S.	Wyeth-Ayerst	[NLM]	
methyltestosterone	Mesteron	10mg tablet	n/a	Poland	Jelfa	[NLM]	
methyltestosterone	Metandren	5 mg sub. dragee	n/a	U.S.	Ciba	[NLM]	
methyltestosterone	Metandren	10, 25 mg tablet	n/a	U.S.	Ciba	[NLM]	
methyltestosterone	Metandren	10, 25 mg tablet	100 tablet bottle	U.S.	Novartis	[NLM]	
methyltestosterone	Metesto	25 mg tablet	100 tablet bottle	Thailand	Acdhon		
methyltestosterone	Methyltestosterone	10 mg tablet	n/a	U.S.	Goldline	[NLM]	
methyltestosterone	Methyltestosterone	10mg tablet	n/a	U.S.	Global		
methyltestosterone	Metil Testosteron	10mg tablet	50 tablet box	Rumania	Terapia		
methyltestosterone	Metil Thomsina S	10 mg tablet	20 tablet box	Uruguay	Celsius		
methyltestosterone	Metil-Test	50 mg tablet	100 tablet bottle	Mexico	Brovel		VET
methyltestosterone	Metiltestosterona	n/a	n/a	Paraguay	Botica		
methyltestosterone	Neo Aphro	5 mg tablet	30 tablet	Egypt	Misr		
methyltestosterone	Oreton	n/a	n/a	Venezuela	n/a		
methyltestosterone	Oreton Methyl	10mg tablet	n/a	U.S.	Schering	[NLM]	
nandrolone decanoate	Deca-Durabolin®	25, 50 mg/ml	1 ml ampule	Indonesia	Organon		
nandrolone decanoate	Deca-Durabolin®	n/a	n/a	Ireland	Organon		
nandrolone decanoate	Deca-Durabolin®	25, 50 mg/ml	1 ml ampule	Italy	Organon		
nandrolone decanoate	Deca-Durabolin®	25, 50 mg/ml	1 ml ampule	Korea	Organon		
nandrolone decanoate	Deca-Durabolin®	25 mg/ml	1 ml ampule	Malaysia	Organon		
nandrolone decanoate	Deca-Durabolin®	25, 50 mg/ml	1 ml ampule	Netherlands	Organon		
nandrolone decanoate	Deca-Durabolin®	50 mg/ml	1 ml ampule	New Zealand	Organon		
nandrolone decanoate	Deca-Durabolin®	50 mg/ml	1 ml ampule	Norway	Organon		
nandrolone decanoate	Deca-Durabolin®	50 mg/ml	1 ml ampule	Peru	Organon		
nandrolone decanoate	Deca-Durabolin®	25 mg/ml	1 ml ampule	Poland	Organon	[NLM]	
nandrolone decanoate	Deca-Durabolin®	50 mg/ml	1 ml ampule	Poland	Organon		
nandrolone decanoate	Deca-Durabolin®	50 mg/ml	1 ml ampule	Rumania	Organon		
nandrolone decanoate	Deca-Durabolin®	25 mg/ml	1 ml ampule	Singapore	Organon		
nandrolone decanoate	Deca-Durabolin®	25, 50 mg/ml	1 ml ampule	South Africa	Donmed / Organon		
nandrolone decanoate	Deca-Durabolin®	25, 50 mg/ml	1 ml ampule	Spain	Organon		

nandrolone decanoate	Deca-Durabolin®	50 mg/ml	1 ml ampule	Sweden	Organon		
nandrolone decanoate	Deca-Durabolin®	25, 100 mg/ml	1, 2ml	Sweden	Organon	[NLM]	
nandrolone decanoate	Deca-Durabolin®	25 mg/ml	1 ml ampule	Switzerland	Organon	[NLM]	
nandrolone decanoate	Deca-Durabolin®	50 mg/ml	1 ml ampule	Switzerland	Organon		
nandrolone decanoate	Deca-Durabolin®	50 mg/ml	1 ml ampule	Taiwan	Organon		
nandrolone decanoate	Deca-Durabolin®	25, 50 mg/ml	1 ml ampule	Thailand	Organon		
nandrolone decanoate	Deca-Durabolin®	100 mg/ml	1 , 2 ml vial	U.S.	Organon	[NLM]	
nandrolone decanoate	Deca-Durabolin®	200 mg/ml	1 ml vial	U.S.	Organon	[NLM]	
nandrolone decanoate	Deca-Durabolin®	50 mg/ml	1 ml ampule	United Kingdom	Organon		
nandrolone decanoate	Deca-Durabolin®	100 mg/ml	1 , 2 ml ampule	United Kingdom	Organon	[NLM]	
nandrolone decanoate	Deca-Durabolin®	25 mg/ml	1 ml ampule	Venezuela	Organon		
nandrolone decanoate	Deca-Durabolin®	50 mg/ml	1 ml syringe	Venezuela	Organon		
nandrolone decanoate	Deca-Durabolin®	100 mg/ml	2 ml vial	Netherlands	Organon		
nandrolone decanoate	Deca-Evabolin	25 mg/ml	1 ml ampule	India	Concept		
nandrolone decanoate	Decagic	100 mg/ml	10 ml vial	India	Unichem	[NLM]	
nandrolone decanoate	Decanandrolen	200mg/ml	10 ml vial	Mexico	Denkall		VET
nandrolone decanoate	Decaneurabol	25, 50 mg/ml	1 ml ampule	India	Cadila		
nandrolone decanoate	Decaneurophen	25, 50 mg/ml	1 ml ampule	India	Ind-Swift		
nandrolone decanoate	Decanoato de Nandrobna	200 mg/ml	10ml vial	Mexico	Tomel		VET
nandrolone decanoate	Decanoato Nandrolona	25, 50 mg/ml	1 ml ampule	Chile	Astorga		
nandrolone decanoate	Decanoato Nandrolona	50 mg/ml	1 ml ampule	Chile	Biosano		
nandrolone decanoate	Decanofort	25 mg/ml	1 ml ampule	Rumania	Terapia		
nandrolone decanoate	Deca-Pronabol	100 mg/ml	2 ml ampule	India	P & B Labs	[NLM]	
nandrolone decanoate	Decatron250	250 mg/ml	10 ml vial	Mexico	Brovel		VET
nandrolone decanoate	Dimetabol	50 mg/ml	50 ml vial	Dom. Rep.	Bremer Pharma	[NLM]	VET
nandrolone decanoate	Dimetabol ADE	25 mg/ml	50, 100 ml vial	Mexico	Lapisa		VET
nandrolone decanoate	Dynabolon Inj	40 mg/.5 ml	1 ml ampule	Korea	n/a		
nandrolone decanoate	Elpihormo	50 mg/ml	1 ml	Greece	Chemica	[NLM]	
nandrolone decanoate	Extraboline	50 mg/ml	2 ml vial	Greece	Genepharm		
nandrolone decanoate	Gerabolin	25 mg/ml	1 ml ampule	Egypt	Nile		
nandrolone decanoate	Hybolin Decanoate	50, 100 mg/ml	1, 2 ml vial	U.S.	Hyrex		
nandrolone decanoate	Jebolan	50 mg/ml	1 ml ampule	Turkey	Etem	[NLM]	
nandrolone decanoate	Metadec	25, 50 mg/ml	1 ml ampule	India	Jagsonpal		
nandrolone decanoate	Myobolin	25 mg/ml	1 ml ampule	India	Troikaa		
nandrolone decanoate	Nandrobolic L.A.	100 mg/ml	1 , 2 ml vial	U.S.	Forest	[NLM]	
nandrolone decanoate	Nandrolona 300 L.A.	300mg/ml	10ml vial	Mexico	Ttokkyo		VET
nandrolone decanoato	nandrolona decanoato	50 mg/ml	1 ml ampule	Chile	Chile		
nandrolone decanoate	nandrolone decanoate	200 mg/2ml	2 ml vial	Greece	Norma Hellas		
nandrolone decanoate	nandrolone decanoate	100mg/ml	1,2 ml vial	U.S.	Lyphomed	[NLM]	
nandrolone decanoate	nandrolone decanoate	l00mg/ml	1, 2 ml vial	U.S.	Quad	[NLM]	
nandrolone decanoate	nandrolone decanoate	50, 100, 200 mg/ml	1, 2 ml vial	U.S.	Steris	[NLM]	
nandrolone decanoate	Nandrolone Decanoate Inj	100 mg/ml	2 ml vial	U.S.	Watson Pharma		
nandrolone decanoate	Nandrolone Decanoate Inj	200 mg/ml	1 ml vial	U.S.	Watson Pharma		
nandrolone decanoate	Nandrosande	25.50, 100 mg/ml	1 ml ampule	Chile	Sanderson		
nandrolone decanoate	Neo-Durabolic	100, 200 mg/ml	1, 2 ml vial	U.S.	Hauck	[NLM]	
nandrolone decanoate	Norandren	50, 200 mg/ml	10, 50ml vial	Mexico	Brovel		VET
nandrolone decanoate	Nurezan	50 mg/ml	1 ml ampule	Greece	Rafarm		
nandrolone decanoate	Retabolil	25, 50 mg/ml	1 ml ampule	Bulgaria	Gedeon Richter	[NLM]	
nandrolone decanoate	Retabolil	50 mg/ml	1 ml ampule	Egypt	Medimpex/Alxndria		

nandrolone decanoate	Retabolil	50 mg/ml	1 ml ampule	Estonia	Gedeon Richter		
nandrolone decanoate	Retabolil	25, 50 mg/ml	1 ml ampule	Hungary	Gedeon Richter		
nandrolone decanoate	Retabolil	25, 50 mg/ml	1 ml ampule	Malaysia	Gedeon Richter		
nandrolone decanoate	Retabolin	50 mg/ml	1 ml ampule	Russia	Medexport Russia	[NLM]	
nandrolone decanoate	RWR Deca 50	50 mg/ml	10 ml vial	Australia	RWR		VET
nandrolone decanoate	Sterobolin	50 mg/ml	1 ml ampule	Finland	Orion	[NLM]	
nandrolone decanoate	Turinabol Depot	50 mg/ml	1 ml ampule	Bulgaria	Jenapharm	[NLM]	
nandrolone decanoate	Turinabol Depot	50 mg/ml	1 ml ampule	Czech. Rep.	Jenapharm	[NLM]	
nandrolone decanoate	Turinabol Depot	50 ma/ ml	1 ml ampule	Germany	Jenapharm	[NLM]	
nandrolone decanoate	Ziremilon	50 mg/ml	1 ml ampule	Greece	Demo		
nandrolone hexyloxyphenylpropionate	Anador	25 mg/ml	2 ml ampule	France	Pharmacia-Upjohn	[NLM]	
nandrolone hexyloxyphenylpropionate	Anadur	25, 50 mg/ml	1, 2 ml ampule	Austria	Kabi Pharmacia	[NLM]	
nandrolone hexyloxyphenylpropionate	Anadur	25, 50 mg/ml	1 , 2 ml ampule	Belgium	Pharmacia	[NLM]	
nandrolone hexyloxyphenylpropionate	Anadur	25, 50 mg/ml	1 , 2 ml ampule	Czech. Rep.	Pharmacia	[NLM]	
nandrolone hexyloxyphenylpropionate	Anadur	25 mg/ml	2 ml ampule	Denmark	Lundbeck	[NLM]	
nandrolone hexyloxyphenylpropionate	Anadur	25, 50 mg/ml	1 , 2 ml ampule	Finland	Pharmacia	[NLM]	
nandrolone hexyloxyphenylpropionate	Anadur	25, 50 mg/ml	1 , 2 ml ampule	Germany	Kabi Pharmacia	[NLM]	
nandrolone hexyloxyphenylpropionate	Anadur	25, 50 mg/ml	1 , 2 ml ampule	Netherlands	Pharmacia	[NLM]	
nandrolone hexyloxyphenylpropionate	Anadur	25, 50 mg/ml	1 , 2 ml ampule	Norway	Kabi Pharmacia	[NLM]	
nandrolone hexyloxyphenylpropionate	Anadur	25 mg/ml	2 ml ampule	Spain	Leo	[NLM]	
nandrolone hexyloxyphenylpropionate	Anadur	25, 50 mg/ml	1 , 2 ml ampule	Switzerland	Kabi Pharmacia	[NLM]	
nandrolone hexyloxyphenylpropionate	Anadur	25 mg/ml	2 ml ampule	Turkey	Eczacibasi	[NLM]	
nandrolone hexyloxyphenylpropionate	Anadurin	50 mg/ml	1 ml ampule	Greece	Xponei	[NLM]	
nandrolone laurate	Fortabol	20 mg/ml	10, 50 ml vial	Mexico	Parfam		VET
nandrolone laurate	Fortadex	25, 50 mg/ml	n/a	Germany	Hydro		VET
nandrolone laurate	Laudrol LA	250 mg/ml	10 ml vial	Mexico	Loeffler		VET
nandrolone laurate	Laura bolin	25, 50 mg/ml	10ml vial	Australia	Intervet		VET
nandrolone laurate	Laura bolin	50 mg/ml	n/a	Austria	Werffi-Chemie		VET
nandrolone laurate	Laura bolin	50 mg/ml	10, 50 ml	Columbia	Intervet		VET
nandrolone laurate	Laurabolin	25, 50 mg/ml	5, 10,50ml	Germany	Vemie		VET
nandrolone laurate	Laura bolin	20, 50 mg/ml	10, 50 ml vial	Mexico	Intervet		VET
nandrolone laurate	Laurabolin V	50 mg/ml	10, 50 ml	Netherlands	Intervet		VET
nandrolone phenylpropionate	Activin	10 mg/ml	n/a	Spain	Aristegvi	[NLM]	
nandrolone phenylpropionate	Anabolin	50 mg/ml	n/a	U.S.	Alto	[NLM]	
nandrolone phenylpropionate	Anabolin-IM	50 mg/ml	n/a	U.S.	Alto	[NLM]	
nandrolone phenylpropionate	Anabolin-LA	1 00 mg/ml	n/a	U.S.	Alto	[NLM]	
nandrolone phenylpropionate	Androlone	50 mg/ml	n/a	U.S.	Keene	[NLM]	
nandrolone phenylpropionate	Daily Reborn Inj	25 mg/ml	n/a	Taiwan	Shiteh		
nandrolone phenylpropionate	Dubol-100	100 mg/ml	2 ml vial	India	BM Pharmaceuticals		
nandrolone phenylpropionate	Dubol-50	50 mg/ml	1 ml ampule	India	BM Pharmaceuticals		
nandrolone phenylpropionate	Durabol	100 mg/ml	10ml vial	Thailand	British Dragon		
nandrolone phenylpropionate	Durabolin®	25 mg/ml	n/a	Belgium	Organon	[NLM]	
nandrolone phenylpropionate	Durabolin®	25,50 mg/ml	n/a	Canada	Organon	[NLM]	
nandrolone phenylpropionate	Durabolin®	25mg/ml	n/a	Finland	Organon		
nandrolone phenylpropionate	Durabolin®	25 mg/ml	1 ml ampule	Greece	Organon	[NLM]	
nandrolone phenylpropionate	Durabolin®	25 mg/ml	1 ml ampule	India	Infar		
nandrolone phenylpropionate	Durabolin®	12.5 mg/ml	2 ml ampule	Indonesia	Organon		
nandrolone phenylpropionate	Durabolin®	25 mg/ml	1 ml ampule	Malaysia	Organon		
nandrolone phenylpropionate	Durabolin®	25 mg/ml	1 ml ampule	Netherlands	Organon		

nandrolone phenylpropionate	Durabolin®	50 mg/ml	n/a	Portugal	Organon		
nandrolone phenylpropionate	Durabolin®	25 mg/ml	1 ml ampule	Spain	Organon	[NLM]	
nandrolone phenylpropionate	Durabolin®	25 mg/ml	n/a	Switzerland	Opopharma	[NLM]	
nandrolone phenylpropionate	Durabolin®	25 mg/ml	2 ml vial	Taiwan	Organon		
nandrolone phenylpropionate	Durabolin®	25, 50 mg/ml	n/a	U.S.	Organon	[NLM]	
nandrolone phenylpropionate	Durabolin®	50 mg/ml	1 ml ampule	United Kingdom	Organon	[NLM]	
nandrolone phenylpropionate	Durabolin®	50 mg/ml	n/a	Yugoslavia/FRMR	Organon		
nandrolone phenylpropionate	Equibolin-50	50 mg/ml	n/a	U.S.	Vortech	[NLM]	
nandrolone phenylpropionate	Estigor	10 mg/ml	250ml	Argentina	Bumet		VET
nandrolone phenylpropionate	Evabolin	25 mg/ml	1 ml ampule	India	Concept		
nandrolone phenylpropionate	Fenobolin	20 mg/ml	n/a	Russia	Medexport Russia	[NLM]	
nandrolone phenylpropionate	**Fherbolico**	50 mg/ml	n/a	Spain	Fher	[NLM]	
nandrolone phenylpropionate	Ganekyl	50 mg/ml	10,100 ml vial	Argentina	Over Labs		VET
nandrolone phenylpropionate	Hybolin	25,50 mg/ml	n/a	U.S.	Hyrex	[NLM]	
nandrolone phenylpropionate	Macrabone	25 mg/ml	n/a	Taiwan	Ta Fong		
nandrolone phenylpropionate	Menabolin	25 mg/ml	1 ml ampule	Egypt	Theramex / Memphis		
nandrolone phenylpropionate	Metabol	25 mg/ml	1 ml ampule	India	Jagsonpal		
nandrolone phenylpropionate	Metabolin	25 mg/ml	n/a	Taiwan	Metro		
nandrolone phenylpropionate	Nandrobolic	25 mg/ml	n/a	U.S.	Forest	[NLM]	
nandrolone phenylpropionate	Nandrolin	50 mg/ml	25 ml vial	Australia	Intervet		VET
nandrolone phenylpropionate	Nandrolin	25 mg/ml	10 ml vial	Australia	Intervet		VET
nandrolone phenylpropionate	nandrolone phenylpropionate	50,100mg/ml	2 ml vial	India	Hayrian Biotogicals	[NLM]	
nandrolone phenylpropionate	nandrolone phenylpropionate	50 mg/ml	n/a	U.S.	Quad	[NLM]	
nandrolone phenylpropionate	Nerobolil	25 mg/ml	1 ml ampule	Bulgaria	Godeon Richter	[NLM]	
nandrolone phenylpropionate	Nerobolil	25 mg/ml	n/a	Hungary	Godeon Richter	[NLM]	
nandrolone phenylpropionate	Neurabol Inj	25 mg/ml	1 ml ampule	India	Cadila		
nandrolone phenylpropionate	Neurophen	25 mg/ml	1 ml ampule	India	Ind-Swift		
nandrolone phenylpropionate	Norabon	25 mg/ml	1 ml ampule	Thailand	Phihalab		
nandrolone phenylpropionate	Nu-Bolic	25 mg/ml	n/a	U.S.	Seatrace	[NLM]	
nandrolone phenylpropionate	Protosin Inj	25 mg/ml	n/a	Taiwan	Astar		
nandrolone phenylpropionate	Rubolin	25 mg/ml	n/a	Taiwan	Ying Yuan		
nandrolone phenylpropionate	Sinbolin	25 mg/ml	n/a	Taiwan	Sinton		
nandrolone phenylpropionate	Superanabolon	25 mg/ml	1 ml ampule	Czech. Rep.	Spofa		
nandrolone phenylpropionate	Turinabol	25 mg/ml	n/a	Bulgaria	Jenapharm	[NLM]	
nandrolone phenylpropionate	Turinabol	25 mg/ml	n/a	Czech. Rep.	Germed	[NLM]	
nandrolone phenylpropionate	Turinabol	25 mg/ml	n/a	Germany	Jenapharm	[NLM]	
nandrolone undecanoate	Dynabolon	80.5 mg/ml	1 ml ampule	France	Theramex	[NLM]	
nandrolone undecanoate	Dynabolon	80.5 mg/ml	1 ml ampule	Italy	Farmasister	[NLM]	
nandrolone undecanoate	Dynabolon	80.5 mg/ml	1 ml ampule	Italy	Foumier		
nandrolone undecanoate	Psychobolan	80.5 mg/ml	1 ml ampule	Greece	Theramex	[NLM]	
norethandrolone	Anaptex	5 mg tablet	100 tablet bottle	Australia	Jurox		VET
norethandrolone	Nilevar	10mg tablet	30 tablet bottle	France	Searle		
norethandrolone	Nilevar	10mg tablet	30 tablet bottle	Switzerland	Searie	[NLM]	
norethandrolone	Nilevar	10 mg tablet	100 tablet bottle	U.S.	Searle		
Omnadren (testosterone blend)	Omnadren	250 mg/ml	1 ml ampule	Poland	Jelfa		
Omnadren (testosterone blend)	Omnadren	250 mg/ml	1ml ampule	Poland	Polfa	[NLM]	
Omnadren (testosterone blend)	Omnadren 250	250mg/ml	1 ml ampule	Bulgaria	Jelfa		
oxabolone cypionate	Steranabol Ritardo	12.5 mg/ml	2 ml ampule	Italy	Pharmacia & Upjohn	[NLM]	
oxandrolone	Anatrophill	2.5 mg tablet	n/a	France	Searle	[NLM]	

oxandrolone	Anavar	5 mg tablet	30 tablet strip	China	Hubei Huangshi		
oxandrolone	Anavar	2.5 mg tablet	100 tablet bottle	U.S.	Searle	[NLM]	
oxandrolone	Bonavar	2.5 mg tablet	10 tablet strip	Thailand	Body Research		
oxandrolone	Kicker Tab	2.5 mg tablet	n/a	Korea	n/a		
oxandrolone	Lipidex	2.5 mg tablet	n/a	Brazil	Searle	[NLM]	
oxandrolone	Lonavar	2.5 mg tablet	100 tablet bottle	Israel	BTG		
oxandrolone	Lonavar	2 mg tablet	n/a	Japan	Dainippon	[NLM]	
oxandrolone	Lonavar	2.5 mg tablet	n/a	Argentina	Searle	[NLM]	
oxandrolone	Oxafort	5 mg tablet	100 tablet bottle	Mexico	Loeffler		VET
oxandrolone	Oxanabol	5 mg tablet	100 tablet pouch	Thailand	British Dragon		
oxandrolone	Oxandrin®	2.5,10 mg tablet	100 tablet bottle	U.S.	BTG		
oxandrolone	Oxandrolone 10	10 mg tablet	100 tablet bottle	Mexico	Bratis Labs		VET
oxandrolone	Oxandrolone	5 mg tablet	30 tablet bottle	Belize	Planet Pharmacy		
oxandrolone	Oxandrolone	2.5 tablet	100 tablet bottle	Mexico	Ttokkyo	[NLM]	VET
oxandrolone	Oxandrolone	5 mg tablet	100 tablet bottle	Mexico	Ttokkyo		VET
oxandrolone	Oxandrolone SPA	2.5 mg tablet	30 tablet box	Italy	SPA	[NLM]	
oxandrolone	Oxandrolone SPA (Export)	2.5 mg tablet	30 tablet box	Italy	SPA		
oxandrolone	Oxandrovet	5 mg tablet	100 tablet bottle	Mexico	Denkall		VET
oxandrolone	Vasorome	0.5 mg tablet	n/a	Japan	Kowa	[NLM]	
oxandrolone	Vasorome	2 mg tablet	n/a	Japan	Kowa	[NLM]	
oxymetholone	Anabrol	50 mg tablet	100 tablet bottle	Mexico	Brovel		VET
oxymetholone	Anadrol	5 mg tablet	n/a	Japan	n/a		
oxymetholone	Anadrol 50®	50 mg tablet	100 tablet bottle	U.S.	Unimed		
oxymetholone	Anadrol 50®	50 mg tablet	100 tablet bottle	Canada	Syntex	[NLM]	
oxymetholone	Anadrol 50®	50 mg tablet	100 tablet bottle	U.S.	Syntex	[NLM]	
oxymetholone	Anapolon	50 mg tablet	n/a	Bulgaria	Syntex	[NLM]	
oxymetholone	Anapolon	50 mg tablet	20 tablet box	Turkey	Ibrahim		
oxymetholone	Anapolon	2.5, 5 mg tablet	20 tablet box	Turkey	Ibrahim	[NLM]	
oxymetholone	Anapolan 50	50 mg tablet	100 tablet bottle	Malaysia	Syntex	[NLM]	
oxymetholone	Anapolan 50	50 mg tablet	20 tablet strip	Mexico	Syntex	[NLM]	
oxymetholone	Anapolan 50	50 mg tablet	100 tablet bottle	United Kingdom	Syntex	[NLM]	
oxymetholone	Anapolan 50	50 mg tablet	100 tablet bottle	Canada	Hoffman-La Rouche	[NLM]	
oxymetholone	Anasteron	25 mg tablet	60 tablet bottle	Greece	Farmaprod		
oxymetholone	Anasteron	50 mg tablet	n/a	Greece	Syntex	[NLM]	
oxymetholone	Anasteron	50 mg tablet	n/a	Sweden	Syntex	[NLM]	
oxymetholone	Androlic	50 mg tablet	100 tablet bottle, pouch	Thailand	British Dispensary		
oxymetholone	Androlic (Export)	50 mg tablet	20 tablet pouch	Thailand	British Dragon		
oxymetholone	Androyd	5 mg tablet	100 tablet	India	Parke Davis		
oxymetholone	Bonalone	50 mg tablet	100 tablet bottle	Thailand	Body Research		
oxymetholone	Dynasten	50 mg tablet	n/a	Portugal	Cilag	[NLM]	
oxymetholone	Hemogenin	50 mg tablet	10 tablet box	Brazil	Syntex	[NLM]	
oxymetholone	Hemogenin	50 mg tablet	n/a	Brazil	Aventis		
oxymetholone	Hemogenin	50 mg tablet	10 tablet box	Brazil	Sarsa	[NLM]	
oxymetholone	Kanestron	50 mg tablet	100 tablet bottle	Mexico	Loeffler		VET
oxymetholone	Oximetalon	75 mg tablet	100 tablet bottle	Mexico	Denkall		VET
oxymetholone	Oxitosona 5O	50 mg tablet	100 tablet box	Spain	Syntex	[NLM]	
oxymetholone	Oxitron 5O	50 mg tablet	100 tablet bottte	Mexico	Bratis Labs		VET
oxymetholone	Oxybolone	50 mg tablet	20 tablet box	Greece	Genapharm		
oxymetholone	Oxydrol	100 mg tablet	50 tablet pouch	Thailand	British Dragon		

oxymetholone	Oxylone	50 mg tablet	100 tablet bottle	Malaysia	Duopharma		
oxymetholone	Oxymetholone	50 mg tablet	30 tablet bottle	Belize	Planet Pharmacy		
oxymetholone	Oxymetholone	50 mg tablet	n/a	Malaysia	Sime Darby		
oxymetholone	Oxymetholone	50 mg tablet	100 tablet pouch	Thailand	British Dispensary		
oxymetholone	Oxymetholone Dongindang	n/a	n/a	Korea	Dongindang		
oxymetholone	Oxymetholone HanBul	50 mg tablet	n/a	Korea	HanBul		
oxymetholone	Oxymetholone HanSeo	50 mg tablet	100 tablet bottle	Korea	HanSeo		
oxymetholone	Oxymetholone Korea United	50 mg tablet	n/a	Korea	Korea United		
oxymetholone	Oxymetholone Miverva	50 mg tablet	100 tablet	Greece	Minerva	[NLM]	
oxymetholone	Oxymetolona 50	50 mg tablet	100 tablet bottle	Mexico	Ttokkyo		VET
oxymetholone	Oxytone 50	50 mg tablet	100 tablet bottle	Thailand	SB Laboratories		
oxymetholone	Ptenastril	50 mg tablet	n/a	Austria	Grunenthal	[NLM]	
oxymetholone	Plenastril	50 mg tablet	n/a	Switzerland	Proto chemie	[NLM]	
oxymetholone	Roboral	50 mg tablet	100 tablets	Israel	Abic/Ramat-Gan	[NLM]	
oxymetholone	Synasteron	50 mg tablet	50 tablet bottle	Belgium	Sarva	[NLM]	
quinbolone	Anabolicum Vister	10 mg capsule	30 capsule bottte	Italy	Parke Davis	[NLM]	
quinbolone	Anabolicum Vister	oral drops	n/a	Italy	Parke Davis	[NLM]	
stanozolol (inj)	Anabolic ST	50mg/ml	20 ml vial	Australia	SYD Group		VET
stanozolol (inj)	Anabolic ST	50mg/ml	20 ml vial	Mexico	SYD Group		VET
stanozolol (inj)	Anabolico Cimol	60mg/ml	5 ml vial	Argentina	Cimol		VET
stanozolol (inj)	Anabolico Produvet	10mg/ml	25 ml vial	Argentina	Cimol		VET
stanozolol (inj)	Anabolic-ST	50mg/ml	20 ml vial	Mexico	Grupo Tarasco	[NLM]	VET
stanozolol (inj)	Estrombol	25mg/ml	10 ml vial	Argentina	Fundacion		VET
stanozolol (inj)	Nabolic	2mg/ml	50 ml vial	Argentina	Chinfield Ind.		VET
stanozolol (inj)	Nabolic Strong	25mg/ml	50 ml vial	Argentina	Chinfield Ind.		VET
stanozolol (inj)	Stan QV 100	100mg/ml	20 ml vial	Mexico	Quality Vet		VET
stanozolol (inj)	Stan QV 50	50mg/ml	20 ml vial	Mexico	Quality Vet		VET
stanozolol (inj)	Stanabolic	50mg/ml	20 ml vial	Australia	Ilium/Troy		VET
stanozolol (inj)	Stanazol	50mg/ml	20, 50 ml vial	Australia	RWR	[NLM]	VET
stanozolol (inj)	Stanazolic	50, 100mg/ml	20ml, 10ml vial	Mexico	Denkall		VET
stanozolol (inj)	Stanol 50	50mg/ml	20 ml vial	Mexico	BratisLabs		VET
stanozolol (inj)	Stand-V	50, 100 mg/ml	20 ml vial	Mexico	Ttokkyo		VET
stanozolol (inj)	Stanosus	50mg/ml	20 ml vial	Australia	Jurox	[NLM]	VET
stanozolol (inj)	Stromba	50 mg/ml	n/a	United Kingdom	Sterling Research	[NLM]	
stanozolol (inj)	Stromba	50 mg/ml	n/a	Sweden	Sterling- Winthrop	[NLM]	
stanozolol (inj)	Stromba	50 mg/ml	n/a	Sweden	Winthrop	[NLM]	
stanozolol (inj)	Strombaject	50 mg/ml	n/a	Belgium	Winthrop	[NLM]	
stanozolol (inj)	Strombaject	50 mg/ml	n/a	Germany	Winthrop	[NLM]	
stanozolol (inj)	Tanoxol	25 mg/ml	10 ml vial	Argentina	Bumet		VET
stanozolol (inj)	Vitabolic	20 mg/ml	10. 100 ml vial	Argentina	Over Labs		VET
stanozolol (inj)	Winstrol®	50 mg/ml	n/a	Greece	Winthrop	[NLM]	
stanozolol (inj)	Winstrol® Depot	50 mg/ml	1 ml vial	Italy	Zambon	[NLM]	
stanozolol (inj)	Winstrol® Depot	50 mg/ml	1 ml ampule	Spain	Zambon		
stanozolol (inj)	Winstrol® V	50 mg/ml	10, 30ml vial	Canada	Pharmacia		VET
stanozolol (inj)	Winstrol® V	50 mg/ml	10, 30ml vial	U.S.	Pharmacia & Upjohn		VET
stanozolol (inj)	Winstrol® V	50 mg/ml	10, 30ml vial	U.S.	Winthrop	[NLM]	VET
stanozolol (oral)	Anazol	2 mg tablet	100 tablet box	Philippines	Xetox (export)		
stanozolol (oral)	Anazol	2 mg tablet	100, 1000 tablet bottle	Philippines	Xetox (export)		
stanozolol (oral)	Apetil	4 mg/ml	10 ml dropper bottle	Argentina	Holliday		VET

stanozolol (oral)	Cetabon	2 mg tablet	10 tablet strip	Thailand	Therapharma		
stanozolol (oral)	Estano-Pets	10, 25 mg tablet	100 tablet bottle	Mexico	Norvet		VET
stanozolol (oral)	Menabol	5 mg tablet	100 tablet box	India	n/a		
stanozolol (oral)	Neurabol	2 mg capsule	10 capsule box	India	Cadila		
stanozolol (oral)	Seidon	2 mg tablet	100 tablet box	Korea	Seoul Pharm		
stanozolol (oral)	Stabon	2 mg tablet	n/a	Korea	n/a		
stanozolol (oral)	Stanabol	5 mg tablet	250 tablet pouch	Thailand	British Dragon		
stanozolol (oral)	Stanabol	5 mg tablet	200,1000 tablet bottle	Thailand	British Dragon		
stanozolol (oral)	Stanabol	5 mg tablet	200 tablet pouch	Thailand	British Dragon		
stanozolol (oral)	Stanabol	50 mg tablet	100 tablet pouch	Thailand	British Dragon		
stanozolol (oral)	Stanazolic	6mgcap	300 capsule bottle	Mexico	Denkall		VET
stanozolol (oral)	Stanazolic	10 mg tablet	100 tablet bottle	Mexico	Denkall		VET
stanozolol (oral)	Stanol	2 mg tablet	n/a	Taiwan	Hua Shin		
stanozolol (oral)	Stanol	5 mg tablet	200 tablet bottle	Thailand	Body Research		
stanozolol (oral)	Stanol 10	10mg tablet	250 tablet bottle	Mexico	BratisLabs		VET
stanozolol (oral)	Stanol-V	10 mg tablet	100,500 tablet bottte	Mexico	Ttokkyo		VET
stanozolol (oral)	Stanozodon	2 mg tablet	1000 tablet bottte	Thailand	AcdhonCo.		
stanozolol (oral)	stanozolol	25 mg tablet	30 tablet bottle	Belize	Planet Pharmacy		
stanozolol (oral)	stanozolol Tab	5 mg tablet	30 tablet box	Greece	Genepharm		
stanozolol (oral)	stanozolol	2 mg tablet	n/a	Taiwan	Chen Ho		
stanozolol (oral)	Stanzol	5 mg tablet	200 tablet bottle	Thailand	SB Laboratories		
stanozolol (oral)	Stromba	5 mg tablet	10 tablet box	Belgium	Winthrop	[NLM]	
stanozolol (oral)	Stromba	5 mg tablet	56 tablet box	Greece	n/a		
stanozolol (oral)	Stromba	5 mg tablet	n/a	Hungary	Sterling-Health		
stanozolol (oral)	Stromba	5 mg tablet	n/a	Austria	Berger	[NLM]	
stanozolol (oral)	Stromba	5 mg tablet	n/a	Czech. Rep.	Sterling-Health	[NLM]	
stanozolol (oral)	Stromba	5 mg tablet	n/a	Denmark	Winthrop	[NLM]	
stanozolol (oral)	Stromba	5 mg tablet	n/a	Germany	Winthrop	[NLM]	
stanozolol (oral)	Stromba	5 mg tablet	100 tablet box	Netherlands	Sanofi		
stanozolol (oral)	Stromba	5 mg tablet	n/a	Netherlands	Winthrop	[NLM]	
stanozolol (oral)	Stromba	5 mg tablet	n/a	Sweden	Winthrop	[NLM]	
stanozolol (oral)	Stromba	5 mg tablet	n/a	Switzerland	Winthrop	[NLM]	
stanozolol (oral)	Stromba	5 mg tablet	n/a	United Kingdom	Sanofi	[NLM]	
stanozolol (oral)	Stromba	5 mg tablet	n/a	United Kingdom	Sterling	[NLM]	
stanozolol (oral)	Terabon	2 mg tablet	10 tablet strip	Korea	Jin Yang		
stanozolol (oral)	Winstrol	2 mg tablet	n/a	Japan	n/a		
stanozolol (oral)	Winstrol®	2 mg tablet	20 tablet box	Italy	Zambon	[NLM]	
stanozolol (oral)	Winstrol®	2 mg tablet	20 tablet box	Spain	Zambon		
stanozolol (oral)	Winstrol®	2 mg tablet	100 tablet bottle	U.S.	Sanofi		
stanozolol (oral)	Winstrol®	2 mg tablet	100 tablet bottle	U.S.	Upjohn	[NLM]	
stanozolol (oral)	Winstrol®	2 mg tablet	100 tablet bottle	U.S.	Winthrop	[NLM]	
stanozolol (oral)	Winstrol®	2 mg tablet	n/a	Greece	Winthrop	[NLM]	
stanozolol (oral)	Winstrol®	2 mg tablet	n/a	Portugal	Winthrop	[NLM]	
stanozolol (oral)	Winstrol-V®	2 mg tablet	100 tablet bottle	Canada	Pharmacia		VET
stanozolol (oral)	Wmstrol-V®	2 mg tablet	100 tablet bottle	U.S.	Pharmacia & Upjohn		VET
stanozolol (oral)	Winstrol-V®	2 mg chewable tab	100 tablet bottle	U.S.	Pharmacia & Upjohn		VET
Sten (testosterone blend)	Sten	50mg/ml	2 ml ampule	Mexico	Atlantis		
Sustanon 100 (testosterone blend)	Sustanon (Cyctahoh)	100mg/ml	1 ml ampule	India	Infer		
Sustanon 100 (testosterone blend)	Sustanon 100	100 mg/ml	1 ml ampule	Germany	Organon	[NLM]	

Sustanon 100 (testosterone blend)	Sustanon '100'®	100mg/ml	1 ml ampule	Egypt	Organon/Nile		
Sustanon 100 (testosterone blend)	Sustanon '100'®	100 mg/ml	1 ml ampule	Netherlands	Organon		
Sustanon 100 (testosterone blend)	Sustanon '100'®	100 mg/ml	1 ml ampule	United Kingdom	Organon		
Sustanon 100 (testosterone blend)	Testonon'1001®	100 mg/ml	1 ml ampule	Egypt	Nile		
Sustanon 250 (testosterone blend)	Durandron	250 mg/ml	1 ml ampule	Spain	Organon	[NLM]	
Sustanon 250 (testosterone blend)	Durateston	250 mg/ml	5 ml vial	Australia	Intervet		VET
Sustanon 250 (testosterone blend)	Durateston 250®	250 mg/ml	1 ml ampule	Bolivia	Organon		
Sustanon 250 (testosterone blend)	Durateston 250®	250 mg/ml	1 ml ampule	Brazil	Organon		
Sustanon 250 (testosterone blend)	Polysteron 250	250 mg/ml	1 ml ampule	Venezuela	Organon		
Sustanon 250 (testosterone blend)	Sostenon 250®	250 mg/ml	1 ml ampule	Mexico	Organon		
Sustanon 250 (testosterone blend)	Sostenon 250®	250 mg/ml	1 ml ampule	Spain	Organon	[NLM]	
Sustanon 250 (testosterone blend)	Super Test-250	250 mg/ml	5,10 ml vial	Mexico	Tomel		VET
Sustanon 250 (testosterone blend)	Sustanon	250 mg/ml	1 ml ampule	Ireland	Organon		
Sustanon 250 (testosterone blend)	Sustanon	250 mg/ml	1 ml ampule	Israel	Organon		
Sustanon 250 (testosterone blend)	Sustanon	250 mg/ml	1 ml ampule	Slovakia	Organon		
Sustanon 250 (testosterone blend)	Sustanon "250"	250 mg/ml	1 ml ampule	Argentina	Organon		
Sustanon 250 (testosterone blend)	Sustanon "250"	250 mg/ml	1 ml ampule	Indonesia	Organon		
Sustanon 250 (testosterone blend)	Sustanon "250"	250 mg/ml	1 ml ampule	Singapore	Organon		
Sustanon 250 (testosterone blend)	Sustanon "250"	250 mg/ml	1 ml ampule	Vietnam	Organon		
Sustanon 250 (testosterone blend)	Sustanon (Cyctahoh 250)	250 mg/ml	1 ml ampule	Russia	Organon		
Sustanon 250 (testosterone blend)	Sustanon 250	250 mg/ml	1 ml ampule	Czech. Rep.	Organon		
Sustanon 250 (testosterone blend)	Sustanon 250	250 mg/ml	1 ml ampule	Germany	Organon	[NLM]	
Sustanon 250 (testosterone blend)	Sustanon 250	250 mg/ml	1 ml ampule	New Zealand	Organon		
Sustanon 250 (testosterone blend)	Sustanon 250	250 mg/ml	1 ml ampule	Taiwan	Organon		
Sustanon 250 (testosterone blend)	Sustanon 250 (Cyctahon)	250 mg/ml	1 ml ampule	India	Infar		
Sustanon 250 (testosterone blend)	Sustanon 250®	250 mg/ml	1 ml ampule	Belgium	Organon		
Sustanon 250 (testosterone blend)	Sustanon 250®	250 mg/ml	1 ml ampule	Estonia	Organon		
Sustanon 250 (testosterone blend)	Sustanon 250®	250 mg/ml	1 ml ampule	Finland	Organon		
Sustanon 250 (testosterone blend)	Sustanon 250®	250 mg/ml	1 ml ampule	Netherlands	Organon		
Sustanon 250 (testosterone blend)	Sustanon 250®	250 mg/ml	1 ml ampule	Turkey	Organon		
Sustanon 250 (testosterone blend)	Sustanon '250'®	250 mg/ml	1 ml ampule	Egypt	Organon/Nile		
Sustanon 250 (testosterone blend)	Sustanon '250'®	250 mg/ml	1 ml ampule	Malaysia	Organon		
Sustanon 250 (testosterone blend)	Sustanon '250'®	250 mg/ml	1 ml ampule	Pakistan	Organon		
Sustanon 250 (testosterone blend)	Sustanon '250'®	250 mg/ml	1 ml ampule	South Africa	Donmed/Organon		
Sustanon 250 (testosterone blend)	Sustanon '250'®	250 mg/ml	1 ml ampule	Thailand	Organon		
Sustanon 250 (testosterone blend)	Sustanon '250'®	250 mg/ml	1 ml ampule	United Kingdom	Organon		
Sustanon 250 (testosterone blend)	Sustanon®	250 mg/ml	1 ml ampule	Italy	Organon		
Sustanon 250 (testosterone blend)	Sustaretard 250	250 mg/ml	1 ml ampule	India	BM Pharmaceuticals		
Sustanon 250 (testosterone blend)	Sustenan 250	250 mg/ml	1 ml ampule	Chile	Organon		
Sustanon 250 (testosterone blend)	Sustenon 250®	250 mg/ml	1 ml ampule	Portugal	Organon		
Sustanon 250 (testosterone blend)	Testenon 250	250 mg/ml	5 ml vial	Mexico	Ttokkyo		VET
Sustanon 250 (testosterone blend)	Testo-Jet L.A.	250 mg/ml	10 ml vial	Mexico	Norvet		VET
Sustanon 250 (testosterone blend)	Testonon '250'®	250 mg/ml	1 ml ampule	Egypt	Nile		
Sustanon 250 (testosterone blend)	Testosteron 250	250 mg/ml	1 ml ampule	Germany	Rotex Medica	[NLM]	
Sustanon 250 (testosterone blend)	Testosterone 250	250 mg/ml	10ml vial	Costa Rica	Qualityvet		VET
Sustanon 250 (testosterone blend)	Testosterona IV L/A	250 mg/ml	10 ml vial	Mexico	Loeffler		VET
Sustanon 250 (testosterone blend)	Testron 4 250	250 mg/ml	10 ml via!	Mexico	Bratis Labs		VET
Test 400 (testosterone blend)	Test 400	400 mg/ml	10 ml vial	Mexico	Denkall		VET
testosterone (gel)	Androge!	25, 50 mg	single dose packet	Canada	Solvay		

testosterone (gel)	Androgel	25, 50 mg	single dose packet	Netherlands	Besins		
testosterone (gel)	Androgel	25, 50 mg	single dose packet	Sweden	Besins		
testosterone (gel)	Androgel	50, 75, 100 mg	single dose packet	U.S.	Unimed		
testosterone (gel)	Androtop Gel	50 mg	single dose packet	Germany	Kade/Besins		
testosterone (gel)	Testogel	25, 50 mg	single dose packet	Australia	Schering		
testosterone (gel)	Testogel	50 mg	single dose packet	Austria	Schering		
testosterone (gel)	Testogel	25, 50 mg	single dose packet	Germany	Jenapharm		
testosterone (gel)	Testogel	25, 50 mg	single dose packet	Netherlands	Besins		
testosterone (gel)	Testogel	25, 50 mg	single dose packet	Sweden	Besins		
testosterone (implant)	Ropel Testosterone Pellets	23.5 mg pellet	450,600 pellet bottle	Australia	Jurox		VET
testosterone (patch)	Androderm®	12.2 mg patch.	30 patches/box	Canada	Pharmascience		
testosterone (patch)	Androderm®	12.2 mg patch.	10, 30, 60 patches/box	Germany	AstraZenica		
testosterone (patch)	Androderm®	12.2 mg patch.	n/a	Italy	Schwarz Pharma		
testosterone (patch)	Androderm®	12.2 mg patch.	n/a	Korea	n/a		
testosterone (patch)	Androderm®	*2.5* mg patch	30, 60 patch box	Spain	Schwarz Pharma		
testosterone (patch)	Androderm®	5 mg patch	30 patch box	Spain	Schwarz Pharma		
testosterone (patch)	Androderm®	12.2 mg patch	n/a	Switzerland	Astrazenica		
testosterone (patch)	Androderm®	1 2.2 mg patch	60 patches/box	U.S.	Smith Kline Beecham	[NLM]	
testosterone (patch)	Androderm®	12.2, 24.3 mg patch	60 patches/box	U.S.	Watson Pharma		
testosterone (patch)	Andropatch	12.2 mg patch	30, 60 patch box	Netherlands	Schwarz Pharma		
testosterone (patch)	Andropatch	2.5 mg patch	60 patches/box	United Kingdom	GSK		
testosterone (patch)	Andropatch	5 mg patch	30 patches/box	United Kingdom	GSK		
testosterone (patch)	Atmos	5 mg patch	30 patch box	Norway	Astra Zenica		
testosterone (patch)	Atmos	5 mg patch	n/a	Sweden	Astra		
testosterone (patch)	Testoderm	15mgpatch	n/a	Malaysia	Alza		
testosterone (patch)	Testoderm	6 mg patch	10, 30 patch box	Spain	Esteve		
testosterone (patch)	Testoderm	4 mg patch	10 patch box	Spain	Esteve		
testosterone blend (misc)	Deposterona	60mg/ml	10 ml vial	Mexico	Fort Dodge		VET
testosterone blend (misc)	Deposterona	60mg/ml	10 ml vial	Mexico	Syntex	[NLM]	VET
testosterone blend (misc)	Equitest 200	200 mg/ml	6 ml vial	Myanmar/Burma	WDV		VET
testosterone blend (misc)	Triolandren	250 mg/ml	1 ml ampule	Egypt	Novartis		
testosterone blend (misc)	Triolandren	250 mg/ml	1 ml ampule	Taiwan	Novartis		
testosterone cyclohexylpropionate	Testosterone CHP Theramex	296, 148, 37 mg/ml	1 ml ampule	France	Theramex	[NLM]	
testosterone cypionate	Anabolic TL	100 mg/ml	10ml vial	Australia	SYD Group		VET
testosterone cypionate	Anabolic TL	200 mg/ml	10ml vial	Mexico	SYD Group		VET
testosterone cypionate	Andro-Cyp	100, 200 mg/ml	10 ml vial	U.S.	Brown	[NLM]	
testosterone cypionate	Andro-Cyp	100, 200 mg/ml	10 ml vial	U.S.	Keene	[NLM]	
testosterone cypionate	Andronaq LA	100, 200 mg/ml	10 ml vial	U.S.	Central	[NLM]	
testosterone cypionate	Andronate	100, 200 mg/ml	10 ml vial	U.S.	Pasadena	[NLM]	
testosterone cypionate	Banrot	75 mg/ml	200 ml bladder	Australia	Coopers	[NLM]	VET
testosterone cypionate	Biselmon Depot	50 mg/ml	n/a	Taiwan	Ta Fong		
testosterone cypionate	Cyclo-Testosterone Depot	130 mg/ml	n/a	Taiwan	Astar		
testosterone cypionate	Cypionax	100 mg/ml	2 ml ampule	Thailand	Body Research		
testosterone cypionate	CypioTest 250	250 mg/ml	10 ml vial	Mexico	Denkall		VET
testosterone cypionate	Cypriotest L/A	250 mg/ml	10ml vial	Mexico	Loeffler		VET
testosterone cypionate	Dep Andro-100-200	100, 200 mg/ml	10 ml vial	U.S.	Forest	[NLM]	
testosterone cypionate	Deposteron	100 mg/ml	2 ml ampule	Brazil	Novaquimica/Sigma		
testosterone cypionate	Depot-Bifuron	50 mg/ml	n/a	Taiwan	Gentle		
testosterone cypionate	Depo-TCP	200mg/ml	n/a	Korea	n/a		

testosterone cypionate	Depotest	100, 200 mg/ml	10ml vial	U.S.	Hyrex	[NLM]	
testosterone cypionate	Depotest	100, 200 mg/ml	10 ml vial	U.S.	Kay	[NLM]	
testosterone cypionate	Depo-Testermon	200 mg/ml	n/a	Taiwan	CCPC		
testosterone cypionate	Depo-Testerone	200 mg/ml	n/a	Taiwan	Metro		
testosterone cypionate	Depo-Testomon	100 mg/ml	n/a	Taiwan	LiTa		
testosterone cypionate	Depo-Testosterone	100 mg/ml	10 ml vial	South Africa	Pharmacia & Upjohn		
testosterone cypionate	Depo-Testosterone CPP	100 mg/ml	n/a	Taiwan	Metro		
testosterone cypionate	Depo-Testosterone®	100 mg/ml	10 ml vial	Canada	Pharmacia		
testosterone cypionate	Depo-Testosterone®	100 mg/ml	n/a	Malaysia	Pharmacia		
testosterone cypionate	Depo-Testosterone®	10 mg/ml	10 ml vial	New Zealand	Pharmacia & Upjohn		
testosterone cypionate	Depo-Testosterone®	100 mg/ml	10 ml vial	Singapore	Pharmacia & Upjohn		
testosterone cypionate	Depo-Testosterone®	100, 200 mg/ml	10 ml vial	U.S.	Pharmacia & Upjohn		
testosterone cypionate	Depo-Testosterone®	200 mg/ml	1 ml vial	U.S.	Pharmacia & Upjohn		
testosterone cypionate	Depot-Hormon MF	50 mg/ml	n/a	Taiwan	Sintong		
testosterone cypionate	Depotrone	100 mg/ml	2 ml ampule	South Africa	Propan-Zurich		
testosterone cypionate	Depovirin Inj	125 mg/ml	2ml	Korea	n/a		
testosterone cypionate	Dep-Test	100 mg/ml	10 ml vial	U.S.	Rocky Mountain	[NLM]	
testosterone cypionate	D-Test 100/200	100,200 mg/ml	10 ml vial	U.S.	Sig	[NLM]	
testosterone cypionate	Duratest-100-200	100,200mg/ml	10 ml vial	U.S.	Roberts	[NLM]	
testosterone cypionate	Duratest-100-200	100,200 mg/ml	10 ml vial	U.S.	Hauck	[NLM]	
testosterone cypionate	Malogen Cyp	100,200 mg/ml	10 ml vial	U.S.	Forest	[NLM]	
testosterone cypionate	Miro Depo	125 mg/ml	2 ml vial	Korea	Hanil Pharm		
testosterone cypionate	Nannismon Depot	50,100 mg/ml	n/a	Taiwan	Chi Sheng		
testosterone cypionate	Ridrot Testosterone Inj.	75 mg/ml	250 ml vial	Australia	Troy		VET
testosterone cypionate	Scheinpharma Testone-Cyp	100 mg/ml	10 ml vial	Canada	Schein		
testosterone cypionate	Testabot Depot	200 mg/ml	10 ml vial	Thailand	British Dragon		
testosterone cypionate	Testa-C	200 mg/ml	10 ml vial	U.S.	Vortech	[NLM]	
testosterone cypionate	Testacyp	100 mg/ml	2 ml vial	India	BM Pharmaceuticals		
testosterone cypionate	Testadiate-Depo	200 mg/ml	10 ml vial	U.S.	Kay	[NLM]	
testosterone cypionate	Testex Leo prolongatum	50,125 mg/ml	2 ml ampule	Spain	Altana Pharma		
testosterone cypionate	Testex Leo prolongatum	50,125 mg/ml	2 ml ampule	Spain	Leo	[NLM]	
testosterone cypionate	Testo LA	100 mg/ml	10 ml vial	Australia	Jurox	[NLM]	VET
testosterone cypionate	Testoject	100 mg/ml	n/a	U.S.	Mayrand	[NLM]	
testosterone cypionate	Testoject 50	50 mg/ml	n/a	U.S.	Mayrand	[NLM]	
testosterone cypionate	Testoject-LA	200 mg/ml	n/a	U.S.	Mayrand	[NLM]	
testosterone cypionate	Teston QV 200	200 mg/ml	10 ml vial	Mexico	Quality Vet		VET
testosterone cypionate	Testorone Depot	100 mg/ml	n/a	Taiwan	Gentle		
testosterone cypionate	Testosterona Ultra Lenta	100 mg/ml	20 ml vial	Uruguay	Dispert Labs.		VET
testosterone cypionate	Testosterona Ultra Lenta Fuerte	200 mg/ml	5 ml ampule	Uruguay	Dispert Labs.		VET
testosterone cypionate	Testosterona Ultra Lenta Fuerte	200 mg/ml	20 ml vial	Uruguay	Dispert Labs.		VET
testosterone cypionate	testosterone cypionate	100 mg/ml	10 ml vial	U.S.	Geneva Geriatrics	[NLM]	
testosterone cypionate	testosterone cypionate	100, 200 mg/ml	10 ml vial	U.S.	Goldline	[NLM]	
testosterone cypionate	testosterone cypionate	50,100, 200 mg/ml	10 ml vial	U.S.	Huffman	[NLM]	
testosterone cypionate	testosterone cypionate	200 mg/ml	10 ml vial	U.S.	Legere	[NLM]	
testosterone cypionate	testosterone cypionate	100, 200 mg/ml	10 ml vial	U.S.	Schein	[NLM]	
testosterone cypionate	testosterone cypionate	100,200 mg/ml	10ml vial	U.S.	Steris	[NLM]	
testosterone cypionate	Testosterone Cypionate 200	200 mg/ml	10ml vial	Mexico	Ttokkyo		VET
testosterone cypionate	Testosterone Cypionate Inj	200 mg/ml	n/a	Hong Kong	Charmaine		
testosterone cypionate	Testosterone Cypionate Inj	200 mg/ml	n/a	Taiwan	Gwo Chyang		

testosterone cypionate	Testosterone Cypionate Inj	200 mg/ml	n/a	Taiwan	Tai Yu		
testosterone cypionate	Testosterone Cypionate Inj.	100 mg/ml	2 ml vial	Canada	Cytex		
testosterone cypionate	Testosterone Cypionate Inj.	200 mg/ml	10 ml vial	Canada	Sabex		
testosterone cypionate	Testosterone Cypionate LA	100 mg/ml	10ml vial	Mexico	Ttokkyo	[NLM]	VET
testosterone cypionate	Testosterone Depositum	n/a	n/a	Italy	SPA		
testosterone cypionate	Testred Cypionate	200 mg/ml	10 ml vial	U.S.	INC	[NLM]	
testosterone cypionate	Vironate	200 mg/ml	5 ml vial	Philippines	Xelox (export)		
testosterone decanoate	Neotest 250	250 mg/ml	10 ml bottle	Mexico	Loeffler		
testosterone enanthate	Anderone 100/200	100,200 mg/ml	10ml vial	U.S.	Burgin-Arden	[NLM]	
testosterone enanthate	Andro 100	100 mg/ml	10ml vial	U.S.	Forest	[NLM]	
testosterone enanthate	Andro LA 200	200 mg/ml	10 ml vial	U.S.	Forest	[NLM]	
testosterone enanthate	Andropository	200 mg/ml	10ml vial	U.S.	Rugby	[NLM]	
testosterone enanthate	Androtardyl®	250 mg/ml	1 ml ampule	Algeria	Schering		
testosterone enanthate	Androtardyl®	250 mg/ml	1 ml ampule	France	Schering		
testosterone enanthate	Androtardyl®	250 mg/ml	1 ml ampule	Morocco	Schering		
testosterone enanthate	Androtardyl®	250 mg/ml	1 ml ampule	Tunisia	Schering		
testosterone enanthate	Andryl 200	200 mg/ml	10 ml vial	U.S.	Keene	[NLM]	
testosterone enanthate	Delatest	100/mg/ml	10 ml vial	U.S.	Dunhall	[NLM]	
testosterone enanthate	Delatestryl	200 mg/ml	5 ml vial	Canada	Theramed		
testosterone enanthate	Delatestryl	200 mg/ml	10 ml vial	Mexico	Brovel	[NLM]	VET
testosterone enanthate	Delatestryl	200 mg/ml	1 ml syringe	U.S.	BTG		
testosterone enanthate	Delatestryl	200mg/ml	5 ml vial	U.S.	BTG		
testosterone enanthate	Delatestryt	200 mg/ml	10 ml vial	U.S.	Mead Johnson	[NLM]	
testosterone enanthate	DepoTestmon Inj	65mg/ml	n/a	Taiwan	CCPC		
testosterone enanthate	Dura-Testosterone	200 mg/ml	10 ml vial	U.S.	Pharmex	[NLM]	
testosterone enanthate	Durathate-200 Injection	200 mg/ml	n/a	U.S.	Hauck	[NLM]	
testosterone enanthate	Durathate-200 Injection	200 mg/ml	n/a	U.S.	Roberts	[NLM]	
testosterone enanthate	Enantat QV 250	250 mg/ml	10,50 ml vial	Mexico	Quality Vet		Vet
testosterone enanthate	Enarmon-Depot	125 mg/ml	n/a	Japan	Teskoku Hormone		
testosterone enanthate	Everone	100, 200 mg/ml	10 ml vial	U.S.	Hyrex	[NLM]	
testosterone enanthate	Jenasteron Inj	250 mg/ml	n/a	Korea	n/a		
testosterone enanthate	Jenasteron Inj	250 mg/ml	1 ml ampule	Malaysia	Jenahexal		
testosterone enanthate	Matogen 100/200 L.A.	100,200 mg/ml	10 ml vial	U.S.	Forest	[NLM]	
testosterone enanthate	Malogex LA200	200 mg/ml	10 ml vial	Canada	Germiphene	[NLM]	
testosterone enanthate	PMS-Testosterone Enanthate	200 mg/ml	10 ml vial	Canada	Pharmascience		
testosterone enanthate	Primoniat®-Depot 250	250 mg/ml	1 ml ampule	Chile	Schering-Chile	[NLM]	
testosterone enanthate	Primoteston®-Depot	250 mg/ml	1 ml ampule	Egypt	Schering/CID		
testosterone enanthate	Primoteston®-Depot	250 mg/ml	1 ml ampule	Finland	Leiras	[NLM]	
testosterone enanthate	Primoteston®-Depot	250 mg/ml	1 ml ampule	Norway	Schering		
testosterone enanthate	Primoteston®-Depot	250 mg/ml	1 ml ampule	United Kingdom	Sobering	[NLM]	
testosterone enanthate	Primoteston®-Depot	250 mg/ml	1 ml ampule	Australia	Schering		Vet
testosterone enanthate	Primoteston®-Depot	250 mg/ml	1 ml ampule	Ecuador	Schering		
testosterone enanthate	Primoteston®-Depot	250 mg/ml	1 ml ampule	Guatemala	Schering		
testosterone enanthate	Primoteston®-Depot	250 mg/ml	1 ml ampule	Jordan	Schering		
testosterone enanthate	Primoteston®-Depot	250 mg/ml	1 ml ampule	Kuwait	Schering	[NLM]	
testosterone enanthate	Primoteston®-Depot	250 mg/ml	1 ml ampule	Mauritius	Schering		
testosterone enanthate	Primoteston®-Depot	250 mg/ml	1 ml ampule	Mexico	Schering		
testosterone enanthate	Primoteston®-Depot	250 mg/ml	1 ml syringe	New Zealand	Schering		
testosterone enanthate	Primoteston®-Depot	250 mg/ml	1 ml ampule	Sudan	Schering		

testosterone enanthate	Proviron®-Depot	250 mg/ml	1 ml ampule	Venezuela	Schering		
testosterone enanthate	Ropel Liquid Testosterone	75 mg/ml	200 ml vial	Australia	Jurox		
testosterone enanthate	Sunamon Depot Inj	130 mg/ml	n/a	Taiwan	Astar		
testosterone enanthate	Sunamon Inj	250 mg/ml	n/a	Taiwan	Astar		
testosterone enanthate	Tesone L.A.	200 mg/ml	10 ml vial	U.S.	Sig	[NLM]	
testosterone enanthate	Testanate No. 1	100 mg/ml	n/a	U.S.	Kenyon	[NLM]	
testosterone enanthate	Testaval	100,200 mg/ml	10 ml vial	U.S.	Legere	[NLM]	
testosterone enanthate	Testen-250	250 mg/ml	2 ml vial	India	BM Pharmaceuticals		
testosterone enanthate	Testenan Depot	250 mg/ml	n/a	Taiwan	Sinton		
testosterone enanthate	Testermon	25 mg/ml	n/a	Taiwan	CCPC		
testosterone enanthate	Testinon-Depot	n/a	n/a	Japan	n/a		
testosterone enanthate	Testoenan L/A	250 mg/ml	10 ml vial	Mexico	Loeffler		Vet
testosterone enanthate	Testo-Enant	125 mg/ml	2 ml ampule	Italy	Geymonat		
testosterone enanthate	Testo-Enant	250 mg/ml	1 ml ampule	Italy	Geymonat		
testosterone enanthate	Testosteron Depot	100 mg/ml	1 ml ampule	Germany	Rotex Medica	[NLM]	
testosterone enanthate	Testosteron Depot	250 mg/ml	1 ml ampule	Germany	Rotex Medica		
testosterone enanthate	Testosterona 200	200 mg/ml	10 ml vial	Mexico	Brovel		Vet
testosterone enanthate	testosterone enantato	250 mg/ml	1 ml ampule	Chile	Biosano		
testosterone enanthate	testosterona enantato	100 mg/ml	1 ml ampule	Chile	Chile	[NLM]	
testosterone enanthate	testosterona enantato	250 mg/ml	1 ml ampule	Chile	Chile		
testosterone enanthate	Testosteron-Depo	100 mg/ml	1 ml ampule	YugoslaviaFRMR	Galenika	[NLM]	
testosterone enanthate	Testosteron-Depo	250 mg/ml	1 ml ampule	YugoslaviaFRMR	Galenika		
testosterone enanthate	Testosteron-Depo	100, 250 mg/ml	1 ml ampule	YugoslaviaFRMR	Hemofarm	[NLM]	
testosterone enanthate	Testosteron-Depot	250 mg/ml	1 ml ampule	Germany	Eifelfango		
testosterone enanthate	Testosteron-Depot	250 mg/ml	1 ml ampule	Bulgaria	Jenapharm		
testosterone enanthate	Testosteron-Depot	250mg/ml	1 ml ampule	Germany	Jenapharm		
testosterone enanthate	Testosterone 200 Depot	200mg/ml	10 ml vial	Mexico	Tomel		vet
testosterone enanthate	testosterone enanthate	100,200mg/ml	10 ml vial	U.S.	Geneva Geriatrics	[NLM]	
testosterone enanthate	testosterone enanthate	100,200 mg/ml	10 ml vial	U.S.	Goldlline	[NLM]	
testosterone enanthate	testosterone enanthate	100,200mg/ml	10 ml vial	U.S.	Quad	[NLM]	
testosterone enanthate	testosterone enanthate	100,200 mg/ml	10 ml vial	U.S.	Schein	[NLM]	
testosterone enanthate	testosterone enanthate	100,200 mg/ml	10 ml vial	U.S.	Steris	[NLM]	
testosterone enanthate	Testosterone Enanthate 250	250 mg/ml	1 ml ampule	Iran	Aburaihan		
testosterone enanthate	Testosterone Enanthate Dalim	250 mg/ml	n/a	Korea	Dalim		
testosterone enanthate	Testosterone Enanthate Inj	200 mg/ml	10 ml vial	Canada	Taro	[NLM]	
testosterone enanthate	Testosterone Heptytate	50,100,250 mg/ml	1 ml ampule	France	Theramex		
testosterone enanthate	Testosteronum Prolongatum	100 mg/ml	1 ml ampule	Belgium	Polfa	[NLM]	
testosterone enanthate	Testosteronum Prolongatum	100 mg/ml	1 ml ampule	Bulgaria	Jetfa	[NLM]	
testosterone enanthate	Testosteronum Prolongatum	100 mg/ml	1 ml ampule	Poland	Jelfa		
testosterone enanthate	Testosteronum Prolongatum	100 mg/ml	1 ml ampule	Poland	Polfa	[NLM]	
testosterone enanthate	Testoviron Depot	250 mg/ml	1 ml ampule	Taiwan	Schering		
testosterone enanthate	Testoviron® Depot	250 mg/ml	1 ml ampule	Argentina	Schering		
testosterone enanthate	Testoviron® Depot	250 mg/ml	1 ml ampule	Hungary	Schering	[NLM]	
testosterone enanthate	Testoviron® Depot	250 mg/ml	1 ml ampule	Ireland	Schering	[NLM]	
testosterone enanthate	Testoviron® Depot	250 mg/ml	1 ml ampule	Peru	Schering		
testosterone enanthate	Testoviron®-Depot	250 mg/ml	1 ml ampule	Hong Kong	Schering		
testosterone enanthate	Testoviron®-Depot	250 mg/ml	1 ml ampule	Iceland	Schering		
testosterone enanthate	Testoviron®-Depot	250 mg/ml	1 ml ampule	Thailand	Schering		
testosterone enanthate	Testoviron®-Depot	250 mg/ml	1 ml ampule	Yemen	Schering		

testosterone enanthate	Testoviron®-Depot	250 mg/ml	1 mi ampule	Austria	Schering		
testosterone enanthate	Testoviron®-Depot	250 mg/ml	1 ml ampule	Bahrain	Schering	[NLM]	
testosterone enanthate	Testoviron®-Depot	250 mg/ml	1 ml ampule	Colombia	Schering		
testosterone enanthate	Testoviron®-Depot	250 mg/ml	1 ml ampule	Czech. Rep.	Schering	[NLM]	
testosterone enanthate	Testoviron®-Depot	250 mg/ml	1 ml ampule	Denmark	Schering		
testosterone enanthate	Testoviron®-Depot	250 mg/ml	1 ml ampule	Dom. Rep.	Schering		
testosterone enanthate	Testoviron®-Depot	250 mg/ml	1 ml ampule	Ethiopia	Schering		
testosterone enanthate	Testoviron®-Depot	250 mg/ml	1 ml ampule	Germany	Schering		
testosterone enanthate	Testoviron®-Depot	250 mg/ml	1 ml ampule	Greece	Schering		
testosterone enanthate	Testoviron®-Depot	250 mg/ml	1 ml ampule	India	Schering		
testosterone enanthate	Testoviron®-Depot	250 mg/ml	1 ml ampule	Israel	Schering		
testosterone enanthate	Testoviron®-Depot	250 mg/ml	1 ml ampule	Italy	Schering		
testosterone enanthate	Testoviron®-Depot	250 mg/ml	1 ml ampule	Japan	Schering		
testosterone enanthate	Testoviron®-Depot	250 mg/ml	1 ml ampule	Lebanon	Schering	[NLM]	
testosterone enanthate	Testoviron®-Depot	250 mg/ml	1 ml ampule	Malaysia	Schering		
testosterone enanthate	Testoviron®-Depot	250 mg/ml	1 ml ampule	Malta	Schering		
testosterone enanthate	Testoviron®-Depot	250 mg/ml	1 ml ampule	Pakistan	Schering		
testosterone enanthate	Testoviron®-Depot	250 mg/ml	1 ml ampule	Paraguay	Schering		
testosterone enanthate	Testoviron®-Depot	250 mg/ml	1 ml ampule	Portugal	Schering		
testosterone enanthate	Testovjron®-Depot	250 mg/ml	1 ml ampule	Qatar	Schering	[NLM]	
testosterone enanthate	Testoviron®-Depot	250 mg/ml	1 ml ampule	Saudi Arabia	Schering		
testosterone enanthate	Testoviron®-Depot	250 mg/ml	1 ml ampule	Spain	Schering		
testosterone enanthate	Testoviron®-Depot	250 mg/m!	1 ml ampule	Sri Lanka	Schering		
testosterone enanthate	Testoviron®-Depot	250 mg/ml	1 ml ampule	Sweden	Schering		
testosterone enanthate	Testoviron®-Depot	250 mg/ml	1 ml ampule	Switzerland	Schering		
testosterone enanthate	Testoviron®-Depot	250 mg/ml	1 ml ampule	Uruguay	Schering		
testosterone enanthate	Testrin-PA	200 mg/ml	n/a	U.S.	Pasadena Res.	[NLM]	
testosterone enanthate	Testron Depot	125,250 mg/ml	1 ml vial	Japan	n/a		
testosterone enanthate	Weratestone 250	250 mg/ml	1 ml ampule	Algeria	Weimer Pharma		
testosterone enanthate	Weratestone 250	250 mg/ml	1 ml ampule	Mozambique	Weimer Pharma		
testosterone enanthate	Weratestone 250	250 mg/ml	1 ml ampule	Zimbabwe	Weimer Pharma		
testosterone enanthate	Weratestone 250	250 mg/ml	1 ml ampule	Zimbabwe	Weimer Pharma		
testosterone phenylpropionate	Testolent	100 mg/ml	1 ml ampule	Rumania	Sicomed	[NLM]	
testosterone propionate	Agovirin injectable	25 mg/ml	n/a	Czech. Rep.	Leciva	[NLM]	
testosterone propionate	Anatest	100 mg/ml	10 ml vial	Canada	Rhone	[NLM]	VET
testosterone propionate	Anatest	100 mg/ml	10 ml vial	Canada	Sterivet	[NLM]	VET
testosterone propionate	Anatest	100 mg/ml	10 ml vial	Canada	Vetoquinol		VET
testosterone propionate	Androfort-Richter	10, 25 mg/ml	n/a	Hungary	Gedeon Richter		
testosterone propionate	Androlan	50, 100 mg/ml	n/a	U.S.	Lannett	[NLM]	
testosterone propionate	Ara-Test	25 mg/ml	10 ml vial	Mexico	Aranda Laboratories	[NLM]	VET
testosterone propionate	Astrapin	50 mg/ml	1 ml ampule	Malaysia	Astrapin		
testosterone propionate	AVP Supertest	50 mg/ml	10 ml vial	Australia	Vetsearch		VET
testosterone propionate	Dubol	25 mg/ml	1 ml ampule	China	n/a		
testosterone propionate	Facovit	1 mg/ml	10 ml vial	Italy	Teofarma		
testosterone propionate	Hybolin Imp.	25, 50 mg/ml	n/a	U.S.	Hyrex	[NLM]	
testosterone propionate	Malogen In Oil	100 mg/ml	10 ml vial	Canada	Germiphene	[NLM]	
testosterone propionate	Nansmon Depot	25 mg/ml	n/a	Taiwan	Chi Sheng		
testosterone propionate	Neo-Hombreol	50 mg/ml	n/a	Netherlands	Organon	[NLM]	
testosterone propionate	Oreton	25 mg/ml	n/a	Mexico	Goldline	[NLM]	

testosterone propionate	Propionat QV 1OO	100 mg/ml	10 ml vial	Mexico	Quality Vet		VET
testosterone propionate	Propionato de Testosterona	25 mg/ml	20 ml vial	Argentina	Induvet		VET
testosterone propionate	Tepro Hormone	100 mg/ml	500 ml vial	Australia	Virbac		VET
testosterone propionate	Testabol Propionate	100 mg/ml	10 ml vial	Thailand	British Dragon		
testosterone propionate	Testex	50, 100 mg/ml	n/a	U.S.	Pasadena	[NLM]	
testosterone propionate	Testex Leo	25 mg/ml	1 ml ampule	Spain	Altana Pharma		
testosterone propionate	Testex Leo	25 mg/ml	1 ml ampule	Spain	Leo	[NLM]	
testosterone propionate	Testo	50 mg/ml	10 ml vial	Korea	Samil		
testosterone propionate	Testogan	25 mg/ml	50 ml vial	Costa Rica	Laguinsa		VET
testosterone propionate	Testogan	25 mg/ml	50 ml vial	Dom. Rep.	Laguinsa		VET
testosterone propionate	Testogan	25 mg/ml	50 ml vial	Ecuador	Laguinsa		VET
testosterone propionate	Testogan	25 mg/ml	50 ml vial	El Salvador	Laguinsa		VET
testosterone propionate	Testogan	25 mg/ml	50 ml vial	Guatemala	Laguinsa		VET
testosterone propionate	Testogan	25 mg/ml	50 ml vial	Honduras	Laguinsa		VET
testosterone propionate	Testogan	25 mg/ml	50 ml vial	Nicaragua	Laguinsa		VET
testosterone propionate	Testogan	25 mg/ml	50 ml vial	Panama	Laguinsa		VET
testosterone propionate	Testolic	50 mg/ml	2 ml ampule	Thailand	Body Research		
testosterone propionate	Testone-E	25 mg/ml	1 ml ampule	Egypt	Misr		
testosterone propionate	Testopin-100	100 mg/ml	2 ml vial	India	BM Phanmaceuticals		
testosterone propionate	Testopin-100	100 mg/ml	1 ml ampule	India	BM PharmaceutJcals		
testosterone propionate	Testopro L/A	250 mg/ml	10 ml vial	Mexico	Loeffler		VET
testosterone propionate	Testosteron	25 mg/ml	1 ml ampule	Rumania	Sicomed	[NLM]	
testosterone propionate	Testosteron	50 mg/ml	1 ml ampule	Bulgaria	Sopharma		
testosterone propionate	Testosteron	5, 10, 25, 50 mg/ml	1 ml ampule	Hungary	Hemofarm	[NLM]	
testosterone propionate	Testosteron	50 mg/ml	1 ml ampule	Switzerland	Streuli & Co. AG	[NLM]	
testosterone propionate	Testosteron	5, 10, 25, 50 mg/ml	1 ml ampule	YugoslaviaFRMR	Galenika	[NLM]	
testosterone propionate	Testosteron Depot	25 mg/ml	n/a	Taiwan	Gentle		
testosterone propionate	Testosterona	50, 100 mg/ml	10, 20 ml vial	Mexico	Brovel		VET
testosterone propionate	Testosterona Proptonat	50, 100 mg/ml	1 ml ampule	Russia	Farmadon		
testosterone propionate	Testosterona Propionato	n/a	n/a	Paraguay	Botica		
testosterone propionate	Testosterone Berco Supp.	40 mg/suppository	1 8 supp. box	Germany	Funke	[NLM]	
testosterone propionate	Testosterone Jenaphamn	25 mg/ml	1 ml ampule	Germany	Jenapharm	[NLM]	
testosterone propionate	testosterone propionate	50 mg/ml	n/a	U.S.	Quad & Lilly	[NLM]	
testosterone propionate	testosterone propionate	100 mg/ml	10, 30 ml vial	U.S.	Rugby	[NLM]	
testosterone propionate	testosterone propionate	100mg/ml	10ml vial	U.S.	Steris	[NLM]	
testosterone propionate	Testosterone Propionate Inj.	100 mg/ml	1 0 ml vial	Canada	Cytex		
testosterone propionate	Testosterone Propionate Inj.	100 mg/ml	10 ml vial	Canada	Dominion		VET
testosterone propionate	Testosterone Propionate Inj.	100 mg/ml	10 ml vial	Canada	Taro	[NLM]	
testosterone propionate	Testosterone Propionate Inj	50 mg/ml	1 ml ampule	China	n/a		
testosterone propionate	Testosterone Propionate Inj	25 mg/ml	n/a	Hong Kong	Charmaine		
testosterone propionate	Testosterone Propionate Inj	50 mg/ml	n/a	Hong Kong	Hong Kong Med		
testosterone propionate	Testosterone Propionate Inj	25 mg/ml	n/a	Taiwan	Tai Yu		
testosterone propionate	Testosterone Streuli	n/a	5, 10, 25, 50 mg/ml	Austria	Streuli & Co. AG	[NLM]	
testosterone propionate	Testosterone Vitis	n/a	10, 25 mg/ml	Germany	Neopharma	[NLM]	
testosterone propionate	Testosterone-Prop. Disp.	10, 25 mg/ml	1 ml ampule	Austria	Disperga	[NLM]	
testosterone propionate	testosteronpropionat	50 mg/ml	1 ml ampule	Germany	Eifelfango	[NLM]	
testosterone propionate	testosteronpropionat	25 mg/ml	1 ml ampule	Germany	Eifelfango		
testosterone propionate	Testosteronum Propionicum	50 mg/ml	1 ml ampule	Poland	Jelfa		
testosterone propionate	Testoviron®	10,25, 50 mg/ml	1 ml ampule	Greece	Sobering		

testosterone propionate	Testoviron®	10, 25 mg/ml	1 ml ampule	Italy	Schering	[NLM]	
testosterone propionate	Testoviron®	50 mg/ml	2 ml ampule	Spain	Schering	[NLM]	
testosterone propionate	Testovis	20 mg/ml	n/a	Italy	SIT		
testosterone propionate	Triolandren	100 mg/ml	10 ml vial	Switzerland	Ciba Geigy CH	[NLM]	
testosterone propionate	Uni-Test Inj	50, 100 mg/ml	1 ml ampule	Canada	Univet		VET
testosterone propionate	Virormone	50 mg/ml	2 ml ampule	Thailand	Paines		
testosterone propionate	Virormone	50 mg/ml	2 ml ampule	United Kingdom	Ferring	[NLM]	
testosterone propionate	Virormone	50 mg/ml	10 ml vial	United Kingdom	Nordic		
testosterone propionate	VR Testprop	22 mg/pellet	n/a	Australia	Jurox		VET
testosterone propionate (implant)	Implus-H	20 mg/pellet	n/a	U.S.	Upjohn		
testosterone propionate (implant)	Progro-H (plus estradiol)	20 mg/pellet	n/a	Australia	Pro Beef		VET
testosterone propionate (implant)	Synovex®-H (plus estradiol)	20 mg/pellet	n/a	Canada	Ayerst		
testosterone propionate (implant)	Synovex®-H (plus estrogen)	25 mg/pellet	80 pellet cartridge	Australia	Fort Dodge		VET
testosterone propionate (implant)	Synovex®-H (plus estrogen)	20 mg/pellet	n/a	Mexico	Fort Dodge		
testosterone propionate (implant)	Synovex®-H (plus estrogen)	20 mg/pellet	n/a	Mexico	Syntex	[NLM]	
testosterone propionate (implant)	Synovex®-H (plus estrogen)	20 mg/pellet	n/a	U.S.	Fort Dodge		VET
testosterone propionate (implant)	Synovex®-H (plus estrogen)	23.5 mg pellet	450 pellets	U.S.	Syntex	[NLM]	VET
testosterone propionate (implant)	Virbac Tepro Pellets	100 mg/ml	20 ml vial	Australia	Virbac		VET
testosterone suspension	Anabolic TS	100 mg/ml	20 ml vial	Australia	SYD Group		VET
testosterone suspension	Anabolic TS	100 mg/ml	20 ml via!	Mexico	SYD Group		VET
testosterone suspension	Anabolic-TS	25,50, 100 mg/ml	n/a	Mexico	Grupo Tarasco	[NLM]	VET
testosterone suspension	Androlan Aqueous	100 mg/ml	n/a	U.S.	Lannet	[NLM]	
testosterone suspension	Androlin	50 mg/ml	n/a	U.S.	Lincoln	[NLM]	
testosterone suspension	Andronaq-50	100 mg/ml	10 ml vial	U.S.	Central	[NLM]	
testosterone suspension	AquaTest	25 mg/ml	1 ml ampule	Mexico	Denkall		VET
testosterone suspension	Aquaviron	100 mg/ml	n/a	India	Nicholas		
testosterone suspension	Histerone Injection	100 mg/ml	n/a	U.S.	Roberts	[NLM]	
testosterone suspension	Histerone Injection	25, 50, 100, mg/ml	n/a	U.S.	Hauck	[NLM]	
testosterone suspension	Malogen	100 mg/ml	10ml vial	U.S.	Forest	[NLM]	
testosterone suspension	Malogen Aqueous	25, 50 mg/ml	n/a	Canada	Germiphene	[NLM]	
testosterone suspension	Malotrone	100 mg/ml	20 ml vial	U.S.	Bluco	[NLM]	
testosterone suspension	RWR Suspension	25, 50, 100, mg/ml	n/a	Australia	RWR		VET
testosterone suspension	Tesamone	25, 50, 100, mg/ml	n/a	U.S.	Dunhall	[NLM]	
testosterone suspension	Testolin	100 mg/ml	10 ml vial	U.S.	Pasadena	[NLM]	
testosterone suspension	Testos 100	100 mg/ml	n/a	Canada	Vetcom		VET
testosterone suspension	testosterone suspension	50, 100 mg/ml	10, 30ml vial	U.S.	Legere	[NLM]	
testosterone suspension	testosterone suspension			U.S.	Schein	[NLM]	
testosterone suspension	testosterone suspension	50, 100 mg/ml	10, 30ml vial	U.S.	Steris	[NLM]	
testosterone suspension	Testosus 100	100 mg/ml	20 ml vial	Australia	Jurox	[NLM]	VET
testosterone suspension	Uni-Test Suspension	100 mg/ml	30 ml vial	Canada	Univet		VET
testosterone suspension	Veto-Test Sus	100 mg/ml	30 ml vial	Canada	Austin		VET
testosterone suspension (isobutyrate)	Agovirin-Depot	25 mg/ml	2 ml ampule	Czech. Rep.	Biotika		
testosterone undecanoate	Andriol	40 mg capsules	60 capsule bottle	Algeria	Organon		
testosterone undecanoate	Andriol	40 mg capsules	n/a	Aruba	Organon		
testosterone undecanoate	Andriol	40 mg capsules	60 capsule bottle	Australia	Organon		
testosterone undecanoate	Andriol	40 mg capsules	60 capsule bottle	Austria	Organon		
testosterone undecanoate	Andriol	40 mg capsules	n/a	Bahrain	Organon		
testosterone undecanoate	Andriol	40 mg capsules	n/a	Bangladesh	Organon		
testosterone undecanoate	Andriol	40 mg capsules	n/a	Belarus	Organon		

testosterone undecanoate	Andriol	40 mg capsules	60 capsule bottle	Canada	Organon		
testosterone undecanoate	Andriol	40 mg capsules	16 capsule box	China	Organon		
testosterone undecanoate	Andriol	40 mg capsules	n/a	Cyprus	Organon		
testosterone undecanoate	Andriol	40 mg capsules	n/a	Dutch Antilles	Organon		
testosterone undecanoate	Andriol	40 mg capsules	n/a	Ecuador	Organon		
testosterone undecanoate	Andriol	40 mg capsules	20 capsule box	Egypt	Organon/Sedico		
testosterone undecanoate	Andriol	40 mg capsules	n/a	Georgia	Organon		
testosterone undecanoate	Andriol	40 mg capsules	30, 60 capsule bottle	Germany	Organon		
testosterone undecanoate	Andriol	40 mg capsules	n/a	Ghana	Organon		
testosterone undecanoate	Andriol	40 mg capsules	n/a	Hong-Kong	Organon		
testosterone undecanoate	Andriol	40 mg capsules	n/a	Hungary	Organon		
testosterone undecanoate	Andriol	40 mg capsules	n/a	Indonesia	Organon		
testosterone undecanoate	Andriol	40 mg capsules	60 capsule bottle	Italy	Organon		
testosterone undecanoate	Andriol	40 mg capsules	n/a	Jordan	Organon		
testosterone undecanoate	Andriol	40 mg capsules	n/a	Kenya	Organon		
testosterone undecanoate	Andriol	40 mg capsules	n/a	Korea	Organon		
testosterone undecanoate	Andriol	40 mg capsules	n/a	Kuwait	Organon		
testosterone undecanoate	Andriol	40 mg capsules	n/a	Lebanon	Organon		
testosterone undecanoate	Andriol	40 mg capsules	60 capsule bottle	Malaysia	Organon		
testosterone undecanoate	Andriol	40 mg capsules	n/a	Mauritius	Organon		
testosterone undecanoate	Andriol	40 mg capsules	n/a	Morocco	Organon		
testosterone undecanoate	Andriol	40 mg capsules	n/a	Myanmar/Burma	Organon		VET
testosterone undecanoate	Andriol	40 mg capsules	n/a	Netherlands	Organon		
testosterone undecanoate	Andriol	40 mg capsules	n/a	Nigeria	Organon		
testosterone undecanoate	Andriol	40 mg capsules	n/a	Oman	Organon		
testosterone undecanoate	Andriol	40 mg capsules	n/a	Philippines	Organon		
testosterone undecanoate	Andriol	40 mg capsules	n/a	Portugal	Organon		
testosterone undecanoate	Andriol	40 mg capsules	n/a	Qatar	Organon		
testosterone undecanoate	Andriol	40 mg capsules	n/a	Russia	Organon		
testosterone undecanoate	Andriol	40 mg capsules	n/a	Saudi Arabia	Organon		
testosterone undecanoate	Andriol	40 mg capsules	60 capsule bottle	Singapore	Organon		
testosterone undecanoate	Andriol	40 mg capsules	n/a	Sri Lanka	Organon		
testosterone undecanoate	Andriol	40 mg capsules	n/a	Switzerland	Organon		
testosterone undecanoate	Andriol	40 mg capsules	10 capsule strip	Thailand	Organon		
testosterone undecanoate	Andriol	40 mg capsules	n/a	Tunisia	Organon		
testosterone undecanoate	Andriol	40 mg capsules	n/a	Ukraine	Organon		
testosterone undecanoate	Andriol	40 mg capsules	n/a	United Arab E	Organon		
testosterone undecanoate	Andriol	40 mg capsules	n/a	Vietnam	Organon		
testosterone undecanoate	Andriol	40 mg capsules	n/a	Yemen	Organon		
testosterone undecanoate	Andriol	40 mg capsules	n/a	YugoslaviaFRMR	Organon		
testosterone undecanoate	Andriol capsulas	40 mg capsules	30 capsule bottle	Mexico	Organon		
testosterone undecanoate	Andriol capsulas	40 mg capsules	n/a	Venezuela	Organon		
testosterone undecanoate	Androxon	40 mg capsules	20 capsule box	Brazil	Organon		
testosterone undecanoate	Androxon	40 mg capsules	30 capsule bottle	Israel	Organon		
testosterone undecanoate	Androxon	40 mg capsules	60 capsule bottle	Norway	Organon		
testosterone undecanoate	Androxon	40 mg capsules	n/a	Pakistan	Organon		
testosterone undecanoate	Androxon	40 mg capsules	60 capsule bottle	South Africa	Don med/Organon		
testosterone undecanoate	Nuvir	40 mg capsules	30 capsule bottle	India	Organon		
testosterone undecanoate	Panteston	40 mg capsules	60 capsule bottle	Finland	Organon		

testosterone undecanoate	Panteston	40 mg capsules	n/a	Latvia	Organon		
testosterone undecanoate	Panteston	40 mg capsules	n/a	Lithuania	Organon		
testosterone undecanoate	Panteston	40 mg capsules	30,60 capsule bottle	Peru	Organon		
testosterone undecanoate	Panteston capsules	40 mg capsules	n/a	New Zealand	Organon		
testosterone undecanoate	Pantestone	40 mg capsules	60 capsule bottle	Estonia	Organon		
testosterone undecanoate	Pantestone	40 mg capsules	60 capsule bottle	France	Organon		
testosterone undecanoate	Restandol	40 mg capsules	60 capsule bottle	Denmark	Organon		
testosterone undecanoate	Restandol	40 mg capsules	60 capsule bottle	Greece	Organon		
testosterone undecanoate	Restandol	40 mg capsules	n/a	Taiwan	Organon		
testosterone undecanoate	Restandol	40 mg capsules	28, 56 capsule box	United Kingdom	Organon		
testosterone undecanoate	Sustenan Oral	40 mg capsules	n/a	Chile	Organon		
testosterone undecanoate	Undestor	40 mg capsules	n/a	Argentina	Organon		
testosterone undecanoate	Undestor	40 mg capsules	60 capsule bottle	Belgium	Organon		
testosterone undecanoate	Undestor	40 mg capsules	60 capsule bottle	Bulgaria	Organon		
testosterone undecanoate	Undestor	40 mg capsules	60 capsule bottle	Czech. Rep.	Organon		
testosterone undecanoate	Undestor	40 mg capsules	n/a	Luxemburg	Organon		
testosterone undecanoate	Undestor	40 mg capsules	60 capsule bottle	Poland	Organon		
testosterone undecanoate	Undestor	40 mg capsules	60 capsule bottle	Rumania	Organon		
testosterone undecanoate	Undestor	40 mg capsules	n/a	Slovakia	Organon		
testosterone undecanoate	Undestor	40 mg capsules	n/a	Sweden	Organon		
testosterone undecanoate	Virigen	40 mg capsules	30 capsule bottle	Turkey	Organon		
Testosterone Blend	Andropen 275	275 mg/ml	10 and 20 ml vial	Thailand	British Dragon		
Testoviron (testosterone blend)	Aratest 2500	250 mg/ml	10 ml vial	Mexico	Aranda		VET
Testoviron (testosterone blend)	Bi-Testo	60 mg/ml	10 ml vial	Argentina	Cimol		VET
Testoviron (testosterone blend)	Primoniat®-Depot 100	135 mg/ml	1 ml ampule	Chile	Schering-Chile	[NLM]	
Testoviron (testosterone blend)	Primoteston Depot 100	135 mg/ml	1 ml ampule	Australia	Schering	[NLM]	
Testoviron (testosterone blend)	Primoteston Depot 50	75 mg/ml	1 ml ampule	Australia	Schering	[NLM]	
Testoviron (testosterone blend)	Primoteston®-Depot 100	135 mg/ml	1 ml ampule	Egypt	Schering/CID		
Testoviron (testosterone blend)	Testenat	100 mg/ml	1 ml ampule	Russia	Farmadon	[NLM]	
Testoviron (testosterone blend)	Testenon	135 mg/ml	2 ml vial	India	BM Pharmaceuticals		
Testoviron (testosterone blend)	Testenon	135 mg/ml	1 ml ampule	India	BM Pharmaceuticals		
Testoviron (testosterone blend)	Testoprim-D	250 mg/ml	1 ml ampule	Mexico	Labs. Tocogino		
Testoviron (testosterone blend)	Testoviron® Depot	135 mg/ml	1 ml ampule	Argentina	Schering	[NLM]	
Testoviron (testosterone blend)	Testoviron® Depot	135 mg/ml	1 ml ampule	Hungary	Schering	[NLM]	
Testoviron (testosterone blend)	Testoviron® Depot 100	135 mg/ml	1 ml ampule	Austria	Schering	[NLM]	
Testoviron (testosterone blend)	Testoviron® Depot 100	135 mg/ml	1 ml ampule	Dom. Rep.	Schering		
Testoviron (testosterone blend)	Testoviron® Depot 100	135 mg/ml	1 ml ampule	Germany	Schering	[NLM]	
Testoviron (testosterone blend)	Testoviron® Depot 100	135 mg/ml	1 ml ampule	Greece	Schering	[NLM]	
Testoviron (testosterone blend)	Testoviron® Depot 100	135 mg/ml	1 ml ampule	Italy	Schering		
Testoviron (testosterone blend)	Testoviron® Depot 100	135 mg/ml	1 ml ampule	Netherlands	Schering	[NLM]	
Testoviron (testosterone blend)	Testoviron® Depot 100	135 mg/ml	1 ml ampule	Portugal	Schering	[NLM]	
Testoviron (testosterone blend)	Testoviron® Depot 100	135 mg/ml	1 ml ampule	Spain	Schering	[NLM]	
Testoviron (testosterone blend)	Testoviron® Depot 100	135 mg/ml	1 ml ampule	Switzerland	Schering	[NLM]	
Testoviron (testosterone blend)	Testoviron® Depot 135	135 mg/ml	1 ml ampule	Denmark	Schering		
Testoviron (testosterone blend)	Testoviron® Depot 135	135 mg/ml	1 ml ampule	Sweden	Schering	[NLM]	
Testoviron (testosterone blend)	Testoviron® Depot 50	75 mg/ml	1 ml ampule	Austria	Schering	[NLM]	
Testoviron (testosterone blend)	Testoviron® Depot 50	75 mg/ml	1 ml ampule	Germany	Schering	[NLM]	
Testoviron (testosterone blend)	Testoviron® Depot 50	75 mg/ml	1 ml ampule	Italy	Sobering	[NLM]	
Testoviron (testosterone Wend)	Testoviron® Depot 50	75 mg/ml	1 ml ampule	Spain	Schering	[NLM]	

trenbolone acetate	Acetrenbo 50	50 mg tablet	20 tablet bottle	Mexico	Loeffler		VET
trenbolone acetate	ComponentTE-G®	20 mg pellet	40 pellet cartridge	U.S.	VetLife		VET
trenbolone acetate	ComponentTE-S®	20 mg pellet	120 pellet cartridge	U.S.	VetLife		VET
trenbolone acetate	ComponentTE-H®	20 mg pellet	200 pellet cartridge	U.S.	VetLife		VET
trenbolone acetate	ComponentTE-S®	20 mg pellet	140 pellet cartridge	U.S.	VetLife		VET
trenbolone acetate	Finaject	30 mg/ml	n/a	France	Roussel	[NLM]	VET
trenbolone acetate	Finajet	30 mg/ml	50 ml vial	U.S.	Hoechst	[NLM]	VET
trenbolone acetate	Finajet	30 mg/ml	50 ml vial	United Kingdom	Hoechst	[NLM]	VET
trenbolone acetate	Finaplix-H® 20	20 mg pellet	100 pellet cartridge	U.S.	Hoechst-Roussel	[NLM]	VET
trenbolone acetate	Finaplix-H®	20 mg pellet	100 pellet cartridge	U.S.	Intervet		VET
trenbolone acetate	Finaplix-H®	20 mg pellet	70,100 pellet cartridge	Mexico	Roussel	[NLM]	VET
trenbolone acetate	Finaplix-S®	20 mg pellet	70 pellet cartridge	U.S.	Hoechst-Roussel	[NLM]	VET
trenbolone acetate	Parabolan Tabs (Export)	25 mg tablet	20 tablet pouch	Thailand	British Dragon		
trenbolone acetate	Revator-200 (plus estradiol)	20 mg pellet	100 pellet cartridge	U.S.	Intervet		VET
trenbolone acetate	Revator-G (plus estradiol)	20 mg pellet	20 pellet cartridge	U.S.	Intervet		VET
trenbolone acetate	Revator-H (plus estradiol)	20 mg pellet	70 pellet cartridge	Canada	Intervet		VET
trenbolone acetate	Revator-H (plus estradiol)	20 mg pellet	70 pellet cartridge	U.S.	Hoechst-Roussel	[NLM]	VET
trenbolone acetate	Revator-H (plus estradiol)	20 mg pellet	70 pellet cartridge	U.S.	Intervet		VET
trenbolone acetate	Revator-IH (plus estradiol)	20 mg pellet	40 pellet cartridge	U.S.	Intervet		VET
trenbolone acetate	Revator-IS (plus estradiol)	20 mg pellet	40 pellet cartridge	U.S.	Intervet		VET
trenbolone acetate	Revator-S (plus estradiol)	20 mg pellet	60 pellet cartridge	Canada	Intervet		VET
trenbolone acetate	Revator-S (plus estradiol)	20 mg pellet	60 pellet cartridge	U.S.	Hoechst-Roussel	[NLM]	VET
trenbolone acetate	Revator-S (plus estradiol)	20 mg pellet	60 pellet cartridge	U.S.	Intervet		VET
trenbolone acetate	Synovex plus (plus estradiol)	25 mg pellet	80 pellet cartridge	Canada	Wyeth		VET
trenbolone acetate	Synovex plus (plus estradiol)	25 mg pellet	80 pellet cartridge	Mexico	Fort Dodge		VET
trenbolone acetate	Synovex plus (plus estradiol)	25 mg pellet	80 pellet cartridge	U.S.	Fort Dodge		VET
trenbolone acetate	Synovex plus (plus estradiol)	25 mg pellet	80 pellet cartridge	U.S.	Syntex	[NLM]	VET
trenbolone acetate	Trembolone QV 75	75 mg/ml	10 ml vial	Mexico	Quality Vet		VET
trenbolone acetate	Trenabol	75 mg/ml	10 ml vial	Thailand	British Dragon		
trenbolone acetate	Trenbol 75	75 mg/ml	20 ml vial	Mexico	Ttokkyo		VET
Trenbolone acetate	Trenabol 200	200 mg/ml	10 ml vial	Thailand	British Dragon		
trenbolone acetate	Trend 50	50 mg/ml	6 ml vial	Myanmar/Burma	WDV		VET
trenbolone hexahydrobenzytearbonate	Parabolan	76 mg/1.5 ml	1.5 ml ampule	France	Negma	[NLM]	
Trenbolone Blend	Tri-Trenabol 150	150mg/ml	10 ml vial	Thailand	British Dragon		

Steroid Listings

By

Trade Name

Trade Name	Generic Name	Dosage	Packaging	Country	Company	Status	Vet
Acetrenbo 50	trenbolone acetate	50 mg tablet	20 tablet bottle	Mexico	Loeffler		VET
Activin	nandrolone phenylpropionate	10 mg/ml	n/a	Spain	Aristegvi	[NLM]	
Afro	methyltestosterone	25 mg tablet	40 tablet box	Turkey	Casel		
Agovirin	methyltestosterone	10 mg dragee	100 dragee bottle	Czech. Rep.	Leciva	[NLM]	
Agovirin injectable	testosterone propionate	25 mg/ml	n/a	Czech. Rep.	Leciva	[NLM]	
Agovirin-Depot	testosterone suspension (isobutyrate)	25 mg/ml	2 ml ampule	Czech. Rep.	Biotika		
Alfa-Trofbdermin	clostebol acetate	.5% gel	n/a	Italy	Pharmacia & Upjohn		
Alfa-Trofodermin	dostebol acetate	.5% gel	n/a	Italy	Farmitalia	[NLM]	
Ammipire	methandrostenolone	5 mg tablet	1000 tablet bottle	Thailand	Ammipire		
Anabol	methandrostenolone	50 mg tablet	n/a	Thailand	British Dragon	[NLM]	
Anabol Tablets	methandrostenolone	5 mg tablet	1000 tablet bottte	Thailand	British Dispensary		
Anabol Tablets	methandrostenolone	5 mg tablet	1000 tablet bottle	Thailand	L.P Standard	[NLM]	
Ana-Bolde	boldenone undecylenate	50 mg/ml	10 ml vial	Argentina	Fort		VET
Anabolex	methandrostenolone	3 mg tablet	100 tablet box	Dom. Rep.	Ethical		
Anabolic BD	boldenone undecylenate	50 mg/ml	10 ml vial	Australia	SYD Group		VET
Anabolic BD	boldenone undecylenate	100, 200 mg/ml	10 ml vial	Mexico	SYD Group		VET
Anabolic DN	nandrolone cypionate	50 mg/ml	10 ml vial	Australia	SYD Group		VET
Anabolic DN	nandrolone cypionate	50, 300 mg/ml	10 ml vial	Mexico	SYD Group		VET
Anabolic NA	methylandrostenediol (blend)	75mg/ml	10 ml vial	Australia	SYD Group		VET
Anabolic NA	methylandrostenediol (blend)	75mg/ml	10 ml vial	Mexico	SYD Group		VET
Anabolic ST	stanozolol (inj)	50mg/ml	20 ml vial	Australia	SYD Group		VET
Anabolic ST	stanozolol (inj)	50mg/ml	20 ml vial	Mexico	SYD Group		VET
Anabolic TL	testosterone cypionate	100 mg/ml	10ml vial	Australia	SYD Group		VET
Anabolic TL	testosterone cypionate	200 mg/ml	10ml vial	Mexico	SYD Group		VET
Anabolic TS	testosterone suspension	100 mg/ml	20 ml vial	Australia	SYD Group		VET
Anabolic TS	testosterone suspension	100 mg/ml	20 ml via!	Mexico	SYD Group		VET
Anabolic-BD	boldenone undecylenate	100 mg/ml	10 ml vial	Mexico	Grupo Tarasco	[NLM]	VET
Anabolic-DN	nandrolone cypionate	50 mg/ml	10 ml vial	Mexico	Grupo Tarasco	[NLM]	VET
Anabolic-NA	methylandrostenediol (blend)	75 mg/ml	10 ml vial	Mexico	Grupo Tarasco	[NLM]	VET
Anabolico Cimol	stanozolol (inj)	60mg/ml	5 ml vial	Argentina	Cimol		VET
Anabolico Produvet	stanozolol (inj)	10mg/ml	25 ml vial	Argentina	Cimol		VET
Anabolic-ST	stanozolol (inj)	50mg/ml	20 ml vial	Mexico	Grupo Tarasco	[NLM]	VET
Anabolic-TS	testosterone suspension	25,50, 100 mg/ml	n/a	Mexico	Grupo Tarasco	[NLM]	VET
Anabolicum	nandrolone decanoate	25 mg/ml	10, 50 ml vial	Germany	Bela-Pharm		VET
Anabolicum Vister	quinbolone	10 mg capsule	30 capsule bottte	Italy	Parke Davis	[NLM]	
Anabolicum Vister	quinbolone	oral drops	n/a	Italy	Parke Davis	[NLM]	
Anabolikum 2.5%	methandrostenolone	25mg/ml	50 ml vial	Germany	Meca G	[NLM]	VET
Anabolin	methandrostenolone	5 mg tablet	n/a	Finland	Leiras	[NLM]	
Anabolin	methandrostenolone	0.5% cream	n/a	Finland	Leiras	[NLM]	
Anabolin	nandrolone phenylpropionate	50 mg/ml	n/a	U.S.	Alto	[NLM]	
Anabolin Forte	nandrolone decanoate	50 mg/ml	10 ml vial	Netherlands	Alfasan		VET
Anabolin Forte	nandrolone decanoate	50 mg/ml	10 ml vial	Rumania	Alfasan		VET
Anabolin Forte	nandrolone decanoate	50 mg/ml	10,50 ml vial	Spain	Alfasan		VET
Anaboline Depot	nandrolone decanoate	50 mg/ml	1 ml	Greece	Adeteo		
Anabolin-IM	nandrolone phenylpropionate	50 mg/ml	n/a	U.S.	Alto	[NLM]	
Anabolin-LA	nandrolone phenylpropionate	1 00 mg/ml	n/a	U.S.	Alto	[NLM]	
Anabol-Jet	methandrostenolone	25mg/ml	30,100, 250 ml vial	Mexico	Norvet		VET
Anabol-Jet ADE	methandrostenolone	30mg/ml	100,250 ml vial	Mexico	Norvet		VET

Anabol-Pets	methandrostenolone	10.25 mg tablet	200 tablet bottle	Mexico	Norvet		VET
Anabrol	oxymetholone	50 mg tablet	100 tablet bottle	Mexico	Brovel		VET
Anadiol	methylandrostenediol dipropionate	5mg tab	10, 100 tablet bottle	Australia	Ilium/Troy		VET
Anadiol Depot	methylandrostenediol dipropionate	75 mg/ml	10 ml vial	Australia	Ilium/Troy		VET
Anador	nandrolone hexyloxyphenylpropionate	25 mg/ml	2 ml ampule	France	Pharmacia-Upjohn	[NLM]	
Anadrol	oxymetholone	5 mg tablet	n/a	Japan	n/a		
Anadrol 50®	oxymetholone	50 mg tablet	100 tablet bottle	U.S.	Unimed		
Anadrol 50®	oxymetholone	50 mg tablet	100 tablet bottle	Canada	Syntex	[NLM]	
Anadrol 50®	oxymetholone	50 mg tablet	100 tablet bottle	U.S.	Syntex	[NLM]	
Anadur	nandrolone hexyloxyphenylpropionate	25, 50 mg/ml	1, 2 ml ampule	Austria	Kabi Pharmacia	[NLM]	
Anadur	nandrolone hexyloxyphenylpropionate	25, 50 mg/ml	1 , 2 ml ampule	Belgium	Pharmacia	[NLM]	
Anadur	nandrolone hexyloxyphenylpropionate	25, 50 mg/ml	1 , 2 ml ampule	Czech. Rep.	Pharmacia	[NLM]	
Anadur	nandrolone hexyloxyphenylpropionate	25 mg/ml	2 ml ampule	Denmark	Lundbeck	[NLM]	
Anadur	nandrolone hexyloxyphenylpropionate	25, 50 mg/ml	1 , 2 ml ampule	Finland	Pharmacia	[NLM]	
Anadur	nandrolone hexyloxyphenylpropionate	25, 50 mg/ml	1 , 2 ml ampule	Germany	Kabi Pharmacia	[NLM]	
Anadur	nandrolone hexyloxyphenylpropionate	25, 50 mg/ml	1 , 2 ml ampule	Netherlands	Pharmacia	[NLM]	
Anadur	nandrolone hexyloxyphenylpropionate	25, 50 mg/ml	1 , 2 ml ampule	Norway	Kabi Pharmacia	[NLM]	
Anadur	nandrolone hexyloxyphenylpropionate	25 mg/ml	2 ml ampule	Spain	Leo	[NLM]	
Anadur	nandrolone hexyloxyphenylpropionate	25, 50 mg/ml	1 , 2 ml ampule	Switzerland	Kabi Pharmacia	[NLM]	
Anadur	nandrolone hexyloxyphenylpropionate	25 mg/ml	2 ml ampule	Turkey	Eczacibasi	[NLM]	
Anadurin	nandrolone hexyloxyphenylpropionate	50 mg/ml	1 ml ampule	Greece	Xponei	[NLM]	
Anapolan 50	oxymetholone	50 mg tablet	100 tablet bottle	Malaysia	Syntex	[NLM]	
Anapolan 50	oxymetholone	50 mg tablet	20 tablet strip	Mexico	Syntex	[NLM]	
Anapolan 50	oxymetholone	50 mg tablet	100 tablet bottle	United Kingdom	Syntex	[NLM]	
Anapolan 50	oxymetholone	50 mg tablet	100 tablet bottle	Canada	Hoffman-La Rouche	[NLM]	
Anapolon	oxymetholone	50 mg tablet	n/a	Bulgaria	Syntex	[NLM]	
Anapolon	oxymetholone	50 mg tablet	20 tablet box	Turkey	Ibrahim		
Anapolon	oxymetholone	2.5, 5 mg tablet	20 tablet box	Turkey	Ibrahim	[NLM]	
Anaprolina	nandrolone decanoate	25, 50 mg/ml	1 ml ampule	Chile	Silesia		
Anaptex	norethandrolone	5 mg tablet	100 tablet bottle	Australia	Jurox		VET
Anasteron	oxymetholone	25 mg tablet	60 tablet bottle	Greece	Farmaprod		
Anasteron	oxymetholone	50 mg tablet	n/a	Greece	Syntex	[NLM]	
Anasteron	oxymetholone	50 mg tablet	n/a	Sweden	Syntex	[NLM]	
Anatest	testosterone propionate	100 mg/ml	10 ml vial	Canada	Rhone	[NLM]	VET
Anatest	testosterone propionate	100 mg/ml	10 ml vial	Canada	Sterivet	[NLM]	VET
Anatest	testosterone propionate	100 mg/ml	10 ml vial	Canada	Vetoquinol		VET
Anatrophill	oxandrolone	2.5 mg tablet	n/a	France	Searle	[NLM]	
Anavar	oxandrolone	5 mg tablet	30 tablet strip	China	Hubei Huangshi		
Anavar	oxandrolone	2.5 mg tablet	100 tablet bottle	U.S.	Searle	[NLM]	
Anazol	stanozolol (oral)	2 mg tablet	100 tablet box	Philippines	Xetox (export)		
Anazol	stanozolol (oral)	2 mg tablet	100, 1000 tablet bottle	Philippines	Xetox (export)		
Anderone 100/200	testosterone enanthate	100,200 mg/ml	10ml vial	U.S.	Burgin-Arden	[NLM]	
Andoredan	methandrostenolone	5 mg tablet	n/a	Japan	Takeshima-Kodama	[NLM]	
Andractim	dihydrotestosterone	25mg/g	80 gram gel	Belgium	Piette		
Andractim	dihydrotestosterone	25mg/g	100 gram gel	France	Besins-Iscovesco		
Andractim	dihydrotestosterone	25mg/g	100 gram gel	India	Chemec		
Andractim	dihydrotestosterone	25mg/g	80 gram gel	Korea	n/a		
Andractim	dihydrotestosterone	25mg/g	80 gram gel	Uruguay	Servimedic		
Andriol	testosterone undecanoate	40 mg capsules	60 capsule bottle	Algeria	Organon		

Andriol	testosterone undecanoate	40 mg capsules	n/a	Aruba	Organon		
Andriol	testosterone undecanoate	40 mg capsules	60 capsule bottle	Australia	Organon		
Andriol	testosterone undecanoate	40 mg capsules	60 capsule bottle	Austria	Organon		
Andriol	testosterone undecanoate	40 mg capsules	n/a	Bahrain	Organon		
Andriol	testosterone undecanoate	40 mg capsules	n/a	Bangladesh	Organon		
Andriol	testosterone undecanoate	40 mg capsules	n/a	Belarus	Organon		
Andriol	testosterone undecanoate	40 mg capsules	60 capsule bottle	Canada	Organon		
Andriol	testosterone undecanoate	40 mg capsules	16 capsule box	China	Organon		
Andriol	testosterone undecanoate	40 mg capsules	n/a	Cyprus	Organon		
Andriol	testosterone undecanoate	40 mg capsules	n/a	Dutch Antilles	Organon		
Andriol	testosterone undecanoate	40 mg capsules	n/a	Ecuador	Organon		
Andriol	testosterone undecanoate	40 mg capsules	20 capsule box	Egypt	Organon/Sedico		
Andriol	testosterone undecanoate	40 mg capsules	n/a	Georgia	Organon		
Andriol	testosterone undecanoate	40 mg capsules	30, 60 capsule bottle	Germany	Organon		
Andriol	testosterone undecanoate	40 mg capsules	n/a	Ghana	Organon		
Andriol	testosterone undecanoate	40 mg capsules	n/a	Hong-Kong	Organon		
Andriol	testosterone undecanoate	40 mg capsules	n/a	Hungary	Organon		
Andriol	testosterone undecanoate	40 mg capsules	n/a	Indonesia	Organon		
Andriol	testosterone undecanoate	40 mg capsules	60 capsule bottle	Italy	Organon		
Andriol	testosterone undecanoate	40 mg capsules	n/a	Jordan	Organon		
Andriol	testosterone undecanoate	40 mg capsules	n/a	Kenya	Organon		
Andriol	testosterone undecanoate	40 mg capsules	n/a	Korea	Organon		
Andriol	testosterone undecanoate	40 mg capsules	n/a	Kuwait	Organon		
Andriol	testosterone undecanoate	40 mg capsules	n/a	Lebanon	Organon		
Andriol	testosterone undecanoate	40 mg capsules	60 capsule bottle	Malaysia	Organon		
Andriol	testosterone undecanoate	40 mg capsules	n/a	Mauritius	Organon		
Andriol	testosterone undecanoate	40 mg capsules	n/a	Morocco	Organon		
Andriol	testosterone undecanoate	40 mg capsules	n/a	Myanmar/Burma	Organon		VET
Andriol	testosterone undecanoate	40 mg capsules	n/a	Netherlands	Organon		
Andriol	testosterone undecanoate	40 mg capsules	n/a	Nigeria	Organon		
Andriol	testosterone undecanoate	40 mg capsules	n/a	Oman	Organon		
Andriol	testosterone undecanoate	40 mg capsules	n/a	Philippines	Organon		
Andriol	testosterone undecanoate	40 mg capsules	n/a	Portugal	Organon		
Andriol	testosterone undecanoate	40 mg capsules	n/a	Qatar	Organon		
Andriol	testosterone undecanoate	40 mg capsules	n/a	Russia	Organon		
Andriol	testosterone undecanoate	40 mg capsules	n/a	Saudi Arabia	Organon		
Andriol	testosterone undecanoate	40 mg capsules	60 capsule bottle	Singapore	Organon		
Andriol	testosterone undecanoate	40 mg capsules	n/a	Sri Lanka	Organon		
Andriol	testosterone undecanoate	40 mg capsules	n/a	Switzerland	Organon		
Andriol	testosterone undecanoate	40 mg capsules	10 capsule strip	Thailand	Organon		
Andriol	testosterone undecanoate	40 mg capsules	n/a	Tunisia	Organon		
Andriol	testosterone undecanoate	40 mg capsules	n/a	Ukraine	Organon		
Andriol	testosterone undecanoate	40 mg capsules	n/a	United Arab E	Organon		
Andriol	testosterone undecanoate	40 mg capsules	n/a	Vietnam	Organon		
Andriol	testosterone undecanoate	40 mg capsules	n/a	Yemen	Organon		
Andriol	testosterone undecanoate	40 mg capsules	n/a	YugoslaviaFRMR	Organon		
Andriol capsulas	testosterone undecanoate	40 mg capsules	30 capsule bottle	Mexico	Organon		
Andriol capsulas	testosterone undecanoate	40 mg capsules	n/a	Venezuela	Organon		
Andris	methylandrostenediol	10mg tablet	n/a	Greece	Chifar	[NLM]	

Andro 100	testosterone enanthate	100 mg/ml	10ml vial	U.S.	Forest	[NLM]	
Andro LA 200	testosterone enanthate	200 mg/ml	10 ml vial	U.S.	Forest	[NLM]	
Andro-Cyp	testosterone cypionate	100, 200 mg/ml	10 ml vial	U.S.	Brown	[NLM]	
Andro-Cyp	testosterone cypionate	100, 200 mg/ml	10 ml vial	U.S.	Keene	[NLM]	
Androderm®	testosterone (patch)	12.2 mg patch.	30 patches/box	Canada	Pharmascience		
Androderm®	testosterone (patch)	12.2 mg patch.	10, 30, 60 patches/box	Germany	AstraZenica		
Androderm®	testosterone (patch)	12.2 mg patch.	n/a	Italy	Schwarz Pharma		
Androderm®	testosterone (patch)	12.2 mg patch.	n/a	Korea	n/a		
Androderm®	testosterone (patch)	*2.5* mg patch	30, 60 patch box	Spain	Schwarz Pharma		
Androderm®	testosterone (patch)	5 mg patch	30 patch box	Spain	Schwarz Pharma		
Androderm®	testosterone (patch)	12.2 mg patch	n/a	Switzerland	Astrazenica		
Androderm®	testosterone (patch)	1 2.2 mg patch	60 patches/box	U.S.	Smith Kline Beecham	[NLM]	
Androderm®	testosterone (patch)	12.2, 24.3 mg patch	60 patches/box	U.S.	Watson Pharma		
Androfort-Richter	testosterone propionate	10, 25 mg/ml	n/a	Hungary	Gedeon Richter		
Androge!	testosterone (gel)	25, 50 mg	single dose packet	Canada	Solvay		
Androgel	testosterone (gel)	25, 50 mg	single dose packet	Netherlands	Besins		
Androgel	testosterone (gel)	25, 50 mg	single dose packet	Sweden	Besins		
Androgel	testosterone (gel)	50, 75, 100 mg	single dose packet	U.S.	Unimed		
Android	methyltestosterone	5, 10,25 mg tablet	60 tablet bottle	U.S.	ICN Pharm		
Android	methyltestosterone	5, 10, 25 mg tablet	n/a	U.S.	Brown	[NLM]	
Android-F	fluoxymesterone	10mg tablet	100 tablet bottle	U.S.	Brown	[NLM]	
Androlan	testosterone propionate	50, 100 mg/ml	n/a	U.S.	Lannett	[NLM]	
Androlan Aqueous	testosterone suspension	100 mg/ml	n/a	U.S.	Lannet	[NLM]	
Androlic	oxymetholone	50 mg tablet	100 tablet bottle, pouch	Thailand	British Dispensary		
Androlic (Export)	oxymetholone	50 mg tablet	20 tablet pouch	Thailand	British Dragon		
Androlin	testosterone suspension	50 mg/ml	n/a	U.S.	Lincoln	[NLM]	
Androlone	nandrolone phenylpropionate	50 mg/ml	n/a	U.S.	Keene	[NLM]	
Androlone-D 200	nandrolone decanoate	200 mg/ml	1 ml	U.S.	Keene	[NLM]	
Andronaq LA	testosterone cypionate	100, 200 mg/ml	10 ml vial	U.S.	Central	[NLM]	
Andronaq-50	testosterone suspension	100 mg/ml	10 ml vial	U.S.	Central	[NLM]	
Andronate	testosterone cypionate	100, 200 mg/ml	10 ml vial	U.S.	Pasadena	[NLM]	
Andropatch	testosterone (patch)	12.2 mg patch	30, 60 patch box	Netherlands	Schwarz Pharma		
Andropatch	testosterone (patch)	2.5 mg patch	60 patches/box	United Kingdom	GSK		
Andropatch	testosterone (patch)	5 mg patch	30 patches/box	United Kingdom	GSK		
Andropen 275	Testosterone Blend	275 mg/ml	10 and 20 ml vial	Thailand	British Dragon		
Andropository	testosterone enanthate	200 mg/ml	10ml vial	U.S.	Rugby	[NLM]	
Androral	methyltestosterone	10mg tablet	n/a	Hungary	Gedeon Richter		
Androtardyl®	testosterone enanthate	250 mg/ml	1 ml ampule	Algeria	Schering		
Androtardyl®	testosterone enanthate	250 mg/ml	1 ml ampule	France	Schering		
Androtardyl®	testosterone enanthate	250 mg/ml	1 ml ampule	Morocco	Schering		
Androtardyl®	testosterone enanthate	250 mg/ml	1 ml ampule	Tunisia	Schering		
Androtop Gel	testosterone (gel)	50 mg	single dose packet	Germany	Kade/Besins		
Androxon	testosterone undecanoate	40 mg capsules	20 capsule box	Brazil	Organon		
Androxon	testosterone undecanoate	40 mg capsules	30 capsule bottle	Israel	Organon		
Androxon	testosterone undecanoate	40 mg capsules	60 capsule bottle	Norway	Organon		
Androxon	testosterone undecanoate	40 mg capsules	n/a	Pakistan	Organon		
Androxon	testosterone undecanoate	40 mg capsules	60 capsule bottle	South Africa	Don med/Organon		
Androyd	oxymetholone	5 mg tablet	100 tablet	India	Parke Davis		
Andryl 200	testosterone enanthate	200 mg/ml	10 ml vial	U.S.	Keene	[NLM]	

Apetil	stanozolol (oral)	4 mg/ml	10 ml dropper bottle	Argentina	Holliday		VET
AquaTest	testosterone suspension	25 mg/ml	1 ml ampule	Mexico	Denkall		VET
Aquaviron	testosterone suspension	100 mg/ml	n/a	India	Nicholas		
Ara-Test	testosterone propionate	25 mg/ml	10 ml vial	Mexico	Aranda Laboratories	[NLM]	VET
Aratest 2500	Testoviron (testosterone blend)	250 mg/ml	10 ml vial	Mexico	Aranda		VET
Arbolic	methylandrostenediol dipropionate	50 mg/ml	n/a	U.S.	Burgin Arden	[NLM]	
Arcosterone	methyltestosterone	10 mg	n/a	U.S.	Acrum	[NLM]	
Arcosterone	methyltestosterone	10, 25 mg tablet	n/a	U.S.	Acrum	[NLM]	
Astrapin	testosterone propionate	50 mg/ml	1 ml ampule	Malaysia	Astrapin		
Atmos	testosterone (patch)	5 mg patch	30 patch box	Norway	Astra Zenica		
Atmos	testosterone (patch)	5 mg patch	n/a	Sweden	Astra		
AVP Supertest	testosterone propionate	50 mg/ml	10 ml vial	Australia	Vetsearch		VET
Banrot	testosterone cypionate	75 mg/ml	200 ml bladder	Australia	Coopers	[NLM]	VET
Baojen	fluoxymesterone	5 mg capsule	n/a	Taiwan	Ta Fong		
Bionabol	methandrostenolone	*2,* 5 mg tab	40 tablet box	Bulgaria	Balkanpharma		
Bionabol	methandrostenolone	2 mg tablet	40 tablet bottle	Bulgaria	Pharmacia	[NLM]	
Bionabol	methandrostenolone	5mg tab	40 tablet bottle	Bulgaria	Pharmacia	[NLM]	
Biselmon Depot	testosterone cypionate	50 mg/ml	n/a	Taiwan	Ta Fong		
Bi-Testo	Testoviron (testosterone blend)	60 mg/ml	10 ml vial	Argentina	Cimol		VET
Bold QV 200	boldenone undecylenate	200 mg/ml	10 ml vial	Mexico	Quality Vet		VET
Boldabol	boldenone undecylenate	200 mg/ml	10 ml vial	Thailand	British Dragon		
Boldebal-H	boldenone undecylenate	50 mg/ml	10 ml vial	Australia	Ilium/Troy		VET
Boldenol R	boldenone undecylenate	50 mg/ml	10, 50, 100, 250ml vial	Columbia	Comandina		VET
Boldenol 25	boldenone undecylenate	25 mg/ml	10, 50,100, 250ml vial	Columbia	Comandina		VET
Boldenon	boldenone undecylenate	200 mg/ml	10 ml vial	Mexico	Ttokkyo		VET
Boldenona	boldenone undecylenate	50mg/ml	10,20,100 ml vial	Columbia	Biogen		VET
Boldenona	boldenone undecylenate	50 mg/ml	10, 50,100, 250ml vial	Columbia	Vecol		VET
Boldenona 50	boldenone undecylenate	50 mg/ml	10, 50, 100, 250ml vial	Columbia	Servinsumos		VET
Boldenona 50 Gen-Far	boldenone undecylenate	50 mg/ml	10, 50,100,250ml vial	Bolivia	Gen-Far		VET
Boldenona 50 Gen-Far	boldenone undecylenate	50 mg/ml	10, 50,100, 250ml vial	Columbia	Gen-Far		VET
Boldenona 50 Gen-Far	boldenone undecylenate	50 mg/ml	10, 50,100, 250ml vial	Costa Rica	Gen-Far		VET
Boldenona 50 Gen-Far	boldenone undecylenate	50 mg/ml	10, 50, 100, 250ml vial	Dom. Republic	Gen-Far		VET
Boldenona 50 Gen-Far	boldenone undecylenate	50 mg/ml	10,50,100,250ml vial	Ecuador	Gen-Far		VET
Boldenona 50 Gen-Far	boldenone undecylenate	50 mg/ml	10, 50,100, 250ml vial	El Salvador	Gen-Far		VET
Boldenona 50 Gen-Far	boldenone undecylenate	50 mg/ml	10,50,100,250ml vial	Guatemala	Gen-Far		VET
Boldenona 50 Gen-Far	boldenone undecylenate	50 mg/ml	10,50,100, 250ml vial	Honduras	Gen-Far		VET
Boldenona 50 Gen-Far	boldenone undecylenate	50 mg/ml	10, 50,100,250ml vial	Nicaragua	Gen-Far		VET
Boldenona 50 Gen-Far	boldenone undecylenate	50 mg/ml	10, 50,100,250ml vial	Panama	Gen-Far		VET
Boldenona 50 Gen-Far	boldenone undecylenate	50 mg/ml	10,50,100,250ml vial	Peru	Gen-Far		VET
Boldenone - 50	boldenone undecylenate	50 mg/ml	10 ml vial	Australia	Jurox	[NLM]	VET
Bonalone	oxymetholone	50 mg tablet	100 tablet bottle	Thailand	Body Research		
Bonavar	oxandrolone	2.5 mg tablet	10 tablet strip	Thailand	Body Research		
Canoate Inj	nandrolone decanoate	25, 50 mg/ml	n/a	Korea	n/a		
Cebulin 50	boldenone undecylenate	50 mg/ml	10, 50, 250 ml vial	Columbia	Provet		VET
Cetabon	stanozolol (oral)	2 mg tablet	10 tablet strip	Thailand	Therapharma		
Cheque Drops	mibolerone	100 meg/ml	55 mg bottle	U.S.	Upjohn	[NLM]	VET
Chinglicosan	fluoxymesterone	5 mg capsule	n/a	Taiwan	Ciiphar		
Chinlipan Tab	methandrostenolone	2 mg tablet	n/a	Taiwan	Chin Tien		
ComponentTE-G®	trenbolone acetate	20 mg pellet	40 pellet cartridge	U.S.	VetLife		VET

ComponentTE-H®	trenbolone acetate	20 mg pellet	200 pellet cartridge	U.S.	VetLife		VET
ComponentTE-S®	trenbolone acetate	20 mg pellet	120 pellet cartridge	U.S.	VetLife		VET
ComponentTE-S®	trenbolone acetate	20 mg pellet	140 pellet cartridge	U.S.	VetLife		VET
Crecibol 50	boldenone undecylenate	25 mg/ml	10, 30 ml vial	Mexico	Unimed		VET
Crestabolic	methylandrostenediol dipropionate	50 mg/ml	n/a	U.S.	Nutrition	[NLM]	
Cyclo-Testosterone Depot	testosterone cypionate	130 mg/ml	n/a	Taiwan	Astar		
Cypionax	testosterone cypionate	100 mg/ml	2 ml ampule	Thailand	Body Research		
CypioTest 250	testosterone cypionate	250 mg/ml	10 ml vial	Mexico	Denkall		VET
Cypriotest L/A	testosterone cypionate	250 mg/ml	10ml vial	Mexico	Loeffler		VET
Daily Reborn Inj	nandrolone phenylpropionate	25 mg/ml	n/a	Taiwan	Shiteh		
Danabol OS	methandrostenolone	10mg tablet	500 tablet bottle	Thailand	Body Research		
D-Bol	methandrostenolone	10mg tablet	100 tablet bottle	Mexico	Denkall		VET
D-Bol	methandrostenolone	10mg capsule	96 capsule box	Mexico	Denkall		VET
D-Bol	methandrostenolone	10mg capsule	300 capsule bottle	Mexico	Denkall		VET
D-Bol	methandrostenolone	25mg/ml	10 ml vial	Mexico	Denkall		VET
Debosteron	methyltestosterone	n/a	n/a	Korea	n/a		
Deca QV 200	nandrolone decanoate	200 mg/ml	10, 50 ml vial	Mexico	Quality Vet		VET
Deca QV 300	nandrolone decanoate	300 mg/ml	10 ml vial	Mexico	Quality Vet		VET
Deca-Dubol-100	nandrolone decanoate	100 mg/ml	2 ml vial	India	BM Pharmaceuticals		
Deca-Durabolin®	nandrolone decanoate	25, 50 mg/ml	1 ml	Argentina	Organon		
Deca-Durabolin®	nandrolone decanoate	50 mg/ml	2ml	Argentina	Organon		
Deca-Durabolin®	nandrolone decanoate	25 mg/ml	1 ml	Austria	Organon	[NLM]	
Deca-Durabolin®	nandrolone decanoate	25, 50 mg/ml	1 ml ampule, syringe	Belgium	Organon		
Deca-Durabolin®	nandrolone decanoate	25, 50 mg/ml	1 ml ampule	Brazil	Organon		
Deca-Durabolin®	nandrolone decanoate	25, 50 mg/ml	1 ml ampule	Bulgaria	Organon		
Deca-Durabolin®	nandrolone decanoate	50 mg/ml	2ml	Canada	Organon	[NLM]	
Deca-Durabolin®	nandrolone decanoate	100 mg/ml	2ml	Canada	Organon		
Deca-Durabolin®	nandrolone decanoate	25, 50,100 mg/ml	1 ml ampule	Chile	Organon		
Deca-Durabolin®	nandrolone decanoate	25, 50 mg/ml	1 ml ampule	Colombia	Organon		
Deca-Durabolin®	nandrolone decanoate	25, 50 mg/ml	1 ml	Denmark	Organon	[NLM]	
Deca-Durabolin®	nandrolone decanoate	25, 50 mg/ml	1 ml ampule	Egypt	Organon/Nile		
Deca-Durabolin®	nandrolone decanoate	25, 50 mg/ml	1 ml	Finland	Organon		
Deca-Durabolin®	nandrolone decanoate	100 mg/ml	1, 2ml	Finland	Organon		
Deca-Durabolin®	nandrolone decanoate	50 mg/ml	1 ml	France	Organon	[NLM]	
Deca-Durabolin®	nandrolone decanoate	25, 50 mg/ml	1 ml	Germany	Organon	[NLM]	
Deca-Durabolin®	nandrolone decanoate	50 mg/ml	1 ml vial	Greece	Organon		
Deca-Durabolin®	nandrolone decanoate	100 mg/ml	2 ml vial	Greece	Organon		
Deca-Durabolin®	nandrolone decanoate	100 mg/ml	2 ml vial	Greece	Organon		
Deca-Durabolin®	nandrolone decanoate	25,50, 100 mg/ml	1 ml ampule	India	Infar		
Deca-Durabolin®	nandrolone decanoate	25, 50 mg/ml	1 ml ampule	Indonesia	Organon		
Deca-Durabolin®	nandrolone decanoate	n/a	n/a	Ireland	Organon		
Deca-Durabolin®	nandrolone decanoate	25, 50 mg/ml	1 ml ampule	Italy	Organon		
Deca-Durabolin®	nandrolone decanoate	25, 50 mg/ml	1 ml ampule	Korea	Organon		
Deca-Durabolin®	nandrolone decanoate	25 mg/ml	1 ml ampule	Malaysia	Organon		
Deca-Durabolin®	nandrolone decanoate	25, 50 mg/ml	1 ml ampule	Netherlands	Organon		
Deca-Durabolin®	nandrolone decanoate	50 mg/ml	1 ml ampule	New Zealand	Organon		
Deca-Durabolin®	nandrolone decanoate	50 mg/ml	1 ml ampule	Norway	Organon		
Deca-Durabolin®	nandrolone decanoate	50 mg/ml	1 ml ampule	Peru	Organon		
Deca-Durabolin®	nandrolone decanoate	25 mg/ml	1 ml ampule	Poland	Organon	[NLM]	

Deca-Durabolin®	nandrolone decanoate	50 mg/ml	1 ml ampule	Poland	Organon		
Deca-Durabolin®	nandrolone decanoate	50 mg/ml	1 ml ampule	Rumania	Organon		
Deca-Durabolin®	nandrolone decanoate	25 mg/ml	1 ml ampule	Singapore	Organon		
Deca-Durabolin®	nandrolone decanoate	25, 50 mg/ml	1 ml ampule	South Africa	Donmed / Organon		
Deca-Durabolin®	nandrolone decanoate	25, 50 mg/ml	1 ml ampule	Spain	Organon		
Deca-Durabolin®	nandrolone decanoate	50 mg/ml	1 ml ampule	Sweden	Organon		
Deca-Durabolin®	nandrolone decanoate	25, 100 mg/ml	1, 2ml	Sweden	Organon	[NLM]	
Deca-Durabolin®	nandrolone decanoate	25 mg/ml	1 ml ampule	Switzerland	Organon	[NLM]	
Deca-Durabolin®	nandrolone decanoate	50 mg/ml	1 ml ampule	Switzerland	Organon		
Deca-Durabolin®	nandrolone decanoate	50 mg/ml	1 ml ampule	Taiwan	Organon		
Deca-Durabolin®	nandrolone decanoate	25, 50 mg/ml	1 ml ampule	Thailand	Organon		
Deca-Durabolin®	nandrolone decanoate	100 mg/ml	1 , 2 ml vial	U.S.	Organon	[NLM]	
Deca-Durabolin®	nandrolone decanoate	200 mg/ml	1 ml vial	U.S.	Organon	[NLM]	
Deca-Durabolin®	nandrolone decanoate	50 mg/ml	1 ml ampule	United Kingdom	Organon		
Deca-Durabolin®	nandrolone decanoate	100 mg/ml	1 , 2 ml ampule	United Kingdom	Organon	[NLM]	
Deca-Durabolin®	nandrolone decanoate	25 mg/ml	1 ml ampule	Venezuela	Organon		
Deca-Durabolin®	nandrolone decanoate	50 mg/ml	1 ml syringe	Venezuela	Organon		
Deca-Durabolin®	nandrolone decanoate	100 mg/ml	2 ml vial	Netherlands	Organon		
Deca-Evabolin	nandrolone decanoate	25 mg/ml	1 ml ampule	India	Concept		
Decagic	nandrolone decanoate	100 mg/ml	10 ml vial	India	Unichem	[NLM]	
Decanandrolen	nandrolone decanoate	200mg/ml	10 ml vial	Mexico	Denkall		VET
Decaneurabol	nandrolone decanoate	25, 50 mg/ml	1 ml ampule	India	Cadila		
Decaneurophen	nandrolone decanoate	25, 50 mg/ml	1 ml ampule	India	Ind-Swift		
Decanoato de Nandrobna	nandrolone decanoate	200 mg/ml	10ml vial	Mexico	Tomel		VET
Decanoato Nandrolona	nandrolone decanoate	25, 50 mg/ml	1 ml ampule	Chile	Astorga		
Decanoato Nandrolona	nandrolone decanoate	50 mg/ml	1 ml ampule	Chile	Biosano		
Decanofort	nandrolone decanoate	25 mg/ml	1 ml ampule	Rumania	Terapia		
Deca-Pronabol	nandrolone decanoate	100 mg/ml	2 ml ampule	India	P & B Labs	[NLM]	
Decatron250	nandrolone decanoate	250 mg/ml	10 ml vial	Mexico	Brovel		VET
Delatest	testosterone enanthate	100/mg/ml	10 ml vial	U.S.	Dunhall	[NLM]	
Delatestryl	testosterone enanthate	200 mg/ml	5 ml vial	Canada	Theramed		
Delatestryl	testosterone enanthate	200 mg/ml	10 ml vial	Mexico	Brovel	[NLM]	VET
Delatestryl	testosterone enanthate	200 mg/ml	1 ml syringe	U.S.	BTG		
Delatestryl	testosterone enanthate	200mg/ml	5 ml vial	U.S.	BTG		
Delatestryt	testosterone enanthate	200 mg/ml	10 ml vial	U.S.	Mead Johnson	[NLM]	
Denkadiol	methylandrostenediol dipropionate	75 mg/ml	10 ml vial	Mexico	Denkall		VET
Dep Andro-100-200	testosterone cypionate	100, 200 mg/ml	10 ml vial	U.S.	Forest	[NLM]	
Deposteron	testosterone cypionate	100 mg/ml	2 ml ampule	Brazil	Novaquimica/Sigma		
Deposterona	testosterone blend (misc)	60mg/ml	10 ml vial	Mexico	Fort Dodge		VET
Deposterona	testosterone blend (misc)	60mg/ml	10 ml vial	Mexico	Syntex	[NLM]	VET
Depot-Bifuron	testosterone cypionate	50 mg/ml	n/a	Taiwan	Gentle		
Depo-TCP	testosterone cypionate	200mg/ml	n/a	Korea	n/a		
Depotest	testosterone cypionate	100, 200 mg/ml	10ml vial	U.S.	Hyrex	[NLM]	
Depotest	testosterone cypionate	100, 200 mg/ml	10 ml vial	U.S.	Kay	[NLM]	
Depo-Testermon	testosterone cypionate	200 mg/ml	n/a	Taiwan	CCPC		
Depo-Testerone	testosterone cypionate	200 mg/ml	n/a	Taiwan	Metro		
DepoTestmon Inj	testosterone enanthate	65mg/ml	n/a	Taiwan	CCPC		
Depo-Testomon	testosterone cypionate	100 mg/ml	n/a	Taiwan	LiTa		
Depo-Testosterone	testosterone cypionate	100 mg/ml	10 ml vial	South Africa	Pharmacia & Upjohn		

Depo-Testosterone CPP	testosterone cypionate	100 mg/ml	n/a	Taiwan	Metro		
Depo-Testosterone®	testosterone cypionate	100 mg/ml	10 ml vial	Canada	Pharmacia		
Depo-Testosterone®	testosterone cypionate	100 mg/ml	n/a	Malaysia	Pharmacia		
Depo-Testosterone®	testosterone cypionate	10 mg/ml	10 ml vial	New Zealand	Pharmacia & Upjohn		
Depo-Testosterone®	testosterone cypionate	100 mg/ml	10 ml vial	Singapore	Pharmacia & Upjohn		
Depo-Testosterone®	testosterone cypionate	100, 200 mg/ml	10 ml vial	U.S.	Pharmacia & Upjohn		
Depo-Testosterone®	testosterone cypionate	200 mg/ml	1 ml vial	U.S.	Pharmacia & Upjohn		
Depot-Hormon MF	testosterone cypionate	50 mg/ml	n/a	Taiwan	Sintong		
Depotrone	testosterone cypionate	100 mg/ml	2 ml ampule	South Africa	Propan-Zurich		
Depovirin Inj	testosterone cypionate	125 mg/ml	2ml	Korea	n/a		
Dep-Test	testosterone cypionate	100 mg/ml	10 ml vial	U.S.	Rocky Mountain	[NLM]	
Dialone	methandrostenolone	5 mg tablet	100 tablet bottle	U.S.	Major	[NLM]	
Dianabol	methandrostenolone	10mg tablet	100 tablet bottle	Mexico	Salud		VET
Dianabol	methandrostenolone	25 mg/ml	10,50,100 ml vial	Mexico	Salud		VET
Dianabol	methandrostenolone	25 mg tablet	30 tablet bottle	Belize	Planet Pharmacy		
Dianabol	methandrostenolone	5 mg tablet	100 tablet bottle	Germany	Ciba	[NLM]	
Dianabol	methandrostenolone	5 mg tablet	100 tablet bottle	U.S.	Ciba	[NLM]	
Dianabol	methandrostenolone	5 mg tablet	100 tablet bottle	United Kingdom	Ciba	[NLM]	
Dimetabol	nandrolone decanoate	50 mg/ml	50 ml vial	Dom. Rep.	Bremer Pharma	[NLM]	VET
Dimetabol ADE	nandrolone decanoate	25 mg/ml	50, 100 ml vial	Mexico	Lapisa		VET
Dinandrol	nandrolone (blend)	100mg/ml	2 ml vial	Philippines	Xelox (export)		
Diosterol	methandrostenolone/stanozolol	50 mg tablet	30 tablet bottle	Belize	Planet Pharmacy		
Drive	methylandrostenediol (blend)	55mg/ml	10 ml vial	Australia	RWR		VET
Drolban	drostanolone propionate	50mg/1ml	1 ml vial	U.S.	Lilly	[NLM]	
Dromostan	drostanolone	50 mg/ml	5 ml vial	Philippines	Xelox (export)		
D-Test 100/200	testosterone cypionate	100,200 mg/ml	10 ml vial	U.S.	Sig	[NLM]	
Dubol	testosterone propionate	25 mg/ml	1 ml ampule	China	n/a		
Dubol-100	nandrolone phenylpropionate	100 mg/ml	2 ml vial	India	BM Pharmaceuticals		
Dubol-50	nandrolone phenylpropionate	50 mg/ml	1 ml ampule	India	BM Pharmaceuticals		
Durabol	nandrolone phenylpropionate	100 mg/ml	10ml vial	Thailand	British Dragon		
Durabolin®	nandrolone phenylpropionate	25 mg/ml	n/a	Belgium	Organon	[NLM]	
Durabolin®	nandrolone phenylpropionate	25,50 mg/ml	n/a	Canada	Organon	[NLM]	
Durabolin®	nandrolone phenylpropionate	25mg/ml	n/a	Finland	Organon		
Durabolin®	nandrolone phenylpropionate	25 mg/ml	1 ml ampule	Greece	Organon	[NLM]	
Durabolin®	nandrolone phenylpropionate	25 mg/ml	1 ml ampule	India	Infar		
Durabolin®	nandrolone phenylpropionate	12.5 mg/ml	2 ml ampule	Indonesia	Organon		
Durabolin®	nandrolone phenylpropionate	25 mg/ml	1 ml ampule	Malaysia	Organon		
Durabolin®	nandrolone phenylpropionate	25 mg/ml	1 ml ampule	Netherlands	Organon		
Durabolin®	nandrolone phenylpropionate	50 mg/ml	n/a	Portugal	Organon		
Durabolin®	nandrolone phenylpropionate	25 mg/ml	1 ml ampule	Spain	Organon	[NLM]	
Durabolin®	nandrolone phenylpropionate	25 mg/ml	n/a	Switzerland	Opopharma	[NLM]	
Durabolin®	nandrolone phenylpropionate	25 mg/ml	2 ml vial	Taiwan	Organon		
Durabolin®	nandrolone phenylpropionate	25, 50 mg/ml	n/a	U.S.	Organon	[NLM]	
Durabolin®	nandrolone phenylpropionate	50 mg/ml	1 ml ampule	United Kingdom	Organon	[NLM]	
Durabolin®	nandrolone phenylpropionate	50 mg/ml	n/a	Yugoslavia/FRMR	Organon		
Durandrol	methylandrostenediol dipropionate	50 mg/ml	n/a	U.S.	Pharmex	[NLM]	
Durandron	Sustanon 250 (testosterone blend)	250 mg/ml	1 ml ampule	Spain	Organon	[NLM]	
Duratest-100-200	testosterone cypionate	100,200mg/ml	10 ml vial	U.S.	Roberts	[NLM]	
Duratest-100-200	testosterone cypionate	100,200 mg/ml	10 ml vial	U.S.	Hauck	[NLM]	

Durateston	Sustanon 250 (testosterone blend)	250 mg/ml	5 ml vial	Australia	Intervet		VET
Durateston 250®	Sustanon 250 (testosterone blend)	250 mg/ml	1 ml ampule	Bolivia	Organon		
Durateston 250®	Sustanon 250 (testosterone blend)	250 mg/ml	1 ml ampule	Brazil	Organon		
Dura-Testosterone	testosterone enanthate	200 mg/ml	10 ml vial	U.S.	Pharmex	[NLM]	
Durathate-200 Injection	testosterone enanthate	200 mg/ml	n/a	U.S.	Hauck	[NLM]	
Durathate-200 Injection	testosterone enanthate	200 mg/ml	n/a	U.S.	Roberts	[NLM]	
Dynabol	nandrolone cypionate	50 mg/ml	10ml vial	Australia	Jurox	[NLM]	VET
Dynabolin 50	boldenone undecylenate	50 mg/ml	10, 50,100,250ml vial	Columbia	Kryovet		VET
Dynabolon	nandrolone undecanoate	80.5 mg/ml	1 ml ampule	France	Theramex	[NLM]	
Dynabolon	nandrolone undecanoate	80.5 mg/ml	1 ml ampule	Italy	Farmasister	[NLM]	
Dynabolon	nandrolone undecanoate	80.5 mg/ml	1 ml ampule	Italy	Foumier		
Dynabolon Inj	nandrolone decanoate	40 mg/.5 ml	1 ml ampule	Korea	n/a		
Dynasten	oxymetholone	50 mg tablet	n/a	Portugal	Cilag	[NLM]	
Elpihormo	nandrolone decanoate	50 mg/ml	1 ml	Greece	Chemica	[NLM]	
Enantat QV 250	testosterone enanthate	250 mg/ml	10,50 ml vial	Mexico	Quality Vet		Vet
Enarmon-Depot	testosterone enanthate	125 mg/ml	n/a	Japan	Teskoku Hormone		
Encephan	methandrostenolone	5 mg tablet	n/a	Japan	Sato	[NLM]	
Equibolin-50	nandrolone phenylpropionate	50 mg/ml	n/a	U.S.	Vortech	[NLM]	
Equifort	boldenone undecylenate	50 mg/ml	10, 50 ml vial	Brazil	Purina		VET
Equi-gan	boldenone undecylenate	50 mg/ml	10, 50,100,250 ml vial	Mexico	Tomel		VET
Equilon 100	boldenone (blend)	100 mg/ml	6 ml vial	Myanmar/Burma	WDV		VET
Equipoise®	boldenone undecylenate	50 mg/ml	10, 50 ml vial	Mexico	Fort Dodge		VET
Equipoise®	boldenone undecylenate	50 mg/ml	50 ml vial	U.S.	Fort Dodge		VET
Equipoise®	boldenone undecylenate	25,50 mg/ml	50 ml vial	Canada	Ciba-Geigy	[NLM]	VET
Equipoise®	boldenone undecylenate	25, 50 mg/ml	50 ml vial	Canada	Squibb	[NLM]	VET
Equipoise®	boldenone undecylenate	50 mg/ml	50 ml vial	Canada	Wyeth		VET
Equipoise®	boldenone undecylenate	25, 50 mg/ml	50 ml vial	Mexico	Solvay	[NLM]	VET
Equipoise®	boldenone undecylenate	25, 50 mg/ml	50 ml vial	Mexico	Squibb	[NLM]	VET
Equipoise®	boldenone undecylenate	25. 50 mg/ml	50 ml vial	U.S.	Squibb	[NLM]	VET
Equitest 200	testosterone blend (misc)	200 mg/ml	6 ml vial	Myanmar/Burma	WDV		VET
Esiclene	formebolone	1 mg drops	n/a	Italy	LPB	[NLM]	
Esiclene	formebolone	2 mg/ml	2 ml ampule	Italy	LPB	[NLM]	
Esiclene	formebolone	5 mg tablet	n/a	Italy	LPB	[NLM]	
Esiclene	formebolone	1 mg drops	n/a	Portugal	Biofarma	[NLM]	
Esiclene	formebolone	5 mg tablet	n/a	Portugal	Biofarma	[NLM]	
Estano-Pets	stanozolol (oral)	10, 25 mg tablet	100 tablet bottle	Mexico	Norvet		VET
Estigor	nandrolone phenylpropionate	10 mg/ml	250ml	Argentina	Bumet		VET
Estrombol	stanozolol (inj)	25mg/ml	10 ml vial	Argentina	Fundacion		VET
Evabolin	nandrolone phenylpropionate	25 mg/ml	1 ml ampule	India	Concept		
Everone	testosterone enanthate	100, 200 mg/ml	10 ml vial	U.S.	Hyrex	[NLM]	
Ex-Pois	boldenone undecylenate	50 mg/ml	10 ml vial	Argentina	Agofarma		VET
Extraboline	nandrolone decanoate	50 mg/ml	2 ml vial	Greece	Genepharm		
Facovit	testosterone propionate	1 mg/ml	10 ml vial	Italy	Teofarma		
Fenobolin	nandrolone phenylpropionate	20 mg/ml	n/a	Russia	Medexport Russia	[NLM]	
Ferona	fluoxymesterone	1 mg tablet	30 tablet box	Argentina	Sidus		
Fherbolico	nandrolone phenylpropionate	50 mg/ml	n/a	Spain	Fher	[NLM]	
Filybol	methylandrostenediol (blend)	70 mg/ml	10, 20 ml vial	Australia	Ranvet		VET
Finaject	trenbolone acetate	30 mg/ml	n/a	France	Roussel	[NLM]	VET
Finajet	trenbolone acetate	30 mg/ml	50 ml vial	U.S.	Hoechst	[NLM]	VET

Finajet	trenbolone acetate	30 mg/ml	50 ml vial	United Kingdom	Hoechst	[NLM]	VET
Finaplix-H®	trenbolone acetate	20 mg pellet	70,100 pellet cartridge	Mexico	Roussel	[NLM]	VET
Finaplix-H®	trenbolone acetate	20 mg pellet	100 pellet cartridge	U.S.	Intervet		VET
Finaplix-H® 20	trenbolone acetate	20 mg pellet	100 pellet cartridge	U.S.	Hoechst-Roussel	[NLM]	VET
Finaplix-S®	trenbolone acetate	20 mg pellet	70 pellet cartridge	U.S.	Hoechst-Roussel	[NLM]	VET
Floxymesterone	fluoxymesterone	5 mg capsule	n/a	Taiwan	Chen Ho		
Fluoxymesterone	fluoxymesterone	10mg tablet	100 tablet bottle	U.S.	Rosemont		
Fluoxymesterone cap	fluoxymesterone	5 mg capsule	n/a	Taiwan	Yuan Chou		
Fortabol	nandrolone laurate	20 mg/ml	10, 50 ml vial	Mexico	Parfam		VET
Fortadex	nandrolone laurate	25, 50 mg/ml	n/a	Germany	Hydro		VET
Fosteron	fluoxymesterone	5 mg capsule	n/a	Taiwan	Health Chemical		
Fu Lao Shu	fluoxymesterone	10 mg capsule	n/a	Taiwan	Ming Ta		
Fuloan	fluoxymesterone	11 mg capsule	n/a	Taiwan	New Chem & Pharm		
Ganabol	boldenone undecylenate	50 mg/ml	500 ml vial	Bolivia	Laboratorios VM		VET
Ganabol	boldenone undecylenate	25, 50 mg/ml	10, 50,100, 250ml vial	Bolivia	Laboratories VM		VET
Ganabol	boldenone undecylenate	50 mg/ml	500 ml vial	Chile	Laboratorios VM		VET
Ganabol	boldenone undecylenate	25, 50 mg/ml	10,50, 100, 250ml vial	Chile	Laboratorios VM		VET
Ganabol	boldenone undecylenate	50 mg/ml	500 ml vial	Columbia	Laboratorios VM		VET
Ganabol	boldenone undecylenate	25, 50 mg/ml	10, 50, 100, 250ml vial	Columbia	Laboratorios VM		VET
Ganabol	boldenone undecylenate	50 mg/ml	500 ml vial	Dom. Republic	Laboratorios VM		VET
Ganabol	boldenone undecylenate	25, 50 mg/ml	10, 50, 100. 250ml vial	Dom. Republic	Laboratorios VM		VET
Ganabol	boldenone undecylenate	50 mg/ml	500 ml vial	Ecuador	Laboratorios VM		VET
Ganabol	boldenone undecylenate	25, 50 mg/ml	10, 50, 100, 250ml vial	Ecuador	Laboratorios VM		VET
Ganabol	boldenone undecylenate	50 mg/ml	500 ml vial	El Salvador	Laboratorios VM		VET
Ganabol	boldenone undecylenate	25. 50 mg/ml	10,50, 100, 250ml vial	El Salvador	Laboratorios VM		VET
Ganabol	boldenone undecylenate	50 mg/ml	500 ml vial	Guatemala	Laboratorios VM		VET
Ganabol	boldenone undecylenate	25, 50 mg/ml	10,50, 100, 250ml vial	Guatemala	Laboratories VM		VET
Ganabol	boldenone undecylenate	50 mg/ml	500 ml vial	Honduras	Laboratories VM		VET
Ganabol	boldenone undecylenate	25, 50 mg/ml	10, 50,100, 250ml vial	Honduras	Laboratories VM		VET
Ganabol	boldenone undecylenate	50 mg/ml	500 ml vial	Panama	Laboratories VM		VET
Ganabol	boldenone undecylenate	25, 50 mg/ml	10,50,100. 250ml vial	Panama	Laboratories VM		VET
Ganabol	boldenone undecylenate	50 mg/ml	500 ml vial	Paraguay	Laboratories VM		VET
Ganabol	boldenone undecylenate	25, 50 mg/ml	10, 50,100, 250ml vial	Paraguay	Laboratories VM		VET
Ganabol	boldenone undecylenate	50 mg/ml	500 ml vial	Peru	Laboratories VM		VET
Ganabol	boldenone undecylenate	25, 50 mg/ml	10, 50,100, 250ml vial	Peru	Laboratories VM		VET
Ganabol	boldenone undecylenate	50 mg/ml	500 ml vial	Venezuela	Laboratories VM		VET
Ganabol	boldenone undecylenate	25, 50 mg/ml	10, 50,100, 250ml vial	Venezuela	Laboratories VM		VET
Ganabol	methandrostenolone	25 mg/ml	50 ml vial	Mexico	Salud	[NLM]	VET
Ganekyl	nandrolone phenylpropionate	50 mg/ml	10,100 ml vial	Argentina	Over Labs		VET
Gen Tabs	methyltestosterone	2 mg tablet	50, 200 tablet bottle	Canada	Vetcom		VET
Gerabolin	nandrolone decanoate	25 mg/ml	1 ml ampule	Egypt	Nile		
Glando Stridox	methyltestosterone	10mg tablet	20 tablet box	Uruguay	Ion		
Halotestin®	fluoxymesterone	5 mg tablet	50 tablet bottle	Canada	Pharmacia		
Halotestin®	fluoxymesterone	5 mg tablet	n/a	Denmark	Upjohn	[NLM]	
Halotestin®	fluoxymesterone	5 mg tablet	n/a	Finland	Upjohn		
Halotestin®	fluoxymesterone	5 mg tablet	n/a	France	Pharmacia-Upjohn	[NLM]	
Halotestin®	fluoxymesterone	5 mg tablet	20 tablet box	Greece	Upjohn		
Halotestin®	fluoxymesterone	5 mg tablet	20 tablet box	Italy	Upjohn	[NLM]	
Halotestin®	fluoxymesterone	2, 5 mg tablet	n/a	Japan	n/a		

Halotestin®	fluoxymesterone	5 mg tablet	n/a	Netherlands	Upjohn	[NLM]	
Halotestin®	fluoxymesterone	5 mg tablet	n/a	Norway	Upjohn	[NLM]	
Halotestin®	fluoxymesterone	5 mg tablet	n/a	Philippines	Pharmacia & Upjohn		
Halotestin®	fluoxymesterone	5 mg tablet	n/a	Sweden	Upjohn	[NLM]	
Halotestin®	fluoxymesterone	5 mg tablet	100 tablet bottle	Thailand	Pharmacia		
Halotestin®	fluoxymesterone	2,5,10 mg tablet	100 tablet bottle	U.S.	Pharmacia & Upjohn		
Halotestin®	fluoxymesterone	10mg tablet	100 tablet bottle	U.S.	Warner-Chilcott	[NLM]	
Halotestin®	fluoxymesterone	5 mg tablet	n/a	YugoslaviaFRMR	Galenika	[NLM]	
Hemogenin	oxymetholone	50 mg tablet	10 tablet box	Brazil	Syntex	[NLM]	
Hemogenin	oxymetholone	50 mg tablet	n/a	Brazil	Aventis		
Hemogenin	oxymetholone	50 mg tablet	10 tablet box	Brazil	Sarsa	[NLM]	
Histerone Injection	testosterone suspension	100 mg/ml	n/a	U.S.	Roberts	[NLM]	
Histerone Injection	testosterone suspension	25, 50, 100, mg/ml	n/a	U.S.	Hauck	[NLM]	
Hormobin	methyltestosterone	5 mg tablet	40 tablet box	Turkey	Munrin Sahin		
Hubernol	formebolone	5 mg dragee	n/a	Spain	ICN Hubber	[NLM]	
Hubernol	formebolone	1 mg drops	n/a	Spain	ICN Hubber	[NLM]	
Hybolin	methylandrostenediol dipropionate	50 mg/ml	n/a	U.S.	Hyrex	[NLM]	
Hybolin	nandrolone phenylpropionate	25,50 mg/ml	n/a	U.S.	Hyrex	[NLM]	
Hybolin Decanoate	nandrolone decanoate	50, 100 mg/ml	1, 2 ml vial	U.S.	Hyrex		
Hybolin Imp.	testosterone propionate	25, 50 mg/ml	n/a	U.S.	Hyrex	[NLM]	
Hysterone	fluoxymesterone	20 mg tablet	100 tablet bottle	U.S.	Major	[NLM]	
Implus-H	testosterone propionate (implant)	20 mg/pellet	n/a	U.S.	Upjohn		
Jebolan	nandrolone decanoate	50 mg/ml	1 ml ampule	Turkey	Etem	[NLM]	
Jenasteron Inj	testosterone enanthate	250 mg/ml	n/a	Korea	n/a		
Jenasteron Inj	testosterone enanthate	250 mg/ml	1 ml ampule	Malaysia	Jenahexal		
Kanestron	oxymetholone	50 mg tablet	100 tablet bottle	Mexico	Loeffler		VET
KangJungBing	methyltestosterone	n/a	n/a	Korea	n/a		
Kicker Tab	oxandrolone	2.5 mg tablet	n/a	Korea	n/a		
Laudrol LA	nandrolone laurate	250 mg/ml	10 ml vial	Mexico	Loeffler		VET
Laura bolin	nandrolone laurate	25, 50 mg/ml	10ml vial	Australia	Intervet		VET
Laura bolin	nandrolone laurate	50 mg/ml	n/a	Austria	Werffi-Chemie		VET
Laura bolin	nandrolone laurate	50 mg/ml	10, 50 ml	Columbia	Intervet		VET
Laura bolin	nandrolone laurate	20, 50 mg/ml	10, 50 ml vial	Mexico	Intervet		VET
Laurabolin	nandrolone laurate	25, 50 mg/ml	5, 10,50ml	Germany	Vemie		VET
Laurabolin V	nandrolone laurate	50 mg/ml	10, 50 ml	Netherlands	Intervet		VET
libriol	methylandrostenediol (blend)	75 mg/ml	10, 20 ml vial	Australia	RWR		VET
Lipaw	fluoxymesterone	10 mg capsule	n/a	Taiwan	Long Der		
Lipidex	oxandrolone	2.5 mg tablet	n/a	Brazil	Searle	[NLM]	
Lonavar	oxandrolone	2.5 mg tablet	100 tablet bottle	Israel	BTG		
Lonavar	oxandrolone	2 mg tablet	n/a	Japan	Dainippon	[NLM]	
Lonavar	oxandrolone	2.5 mg tablet	n/a	Argentina	Searle	[NLM]	
Long	fluoxymesterone	10mg capsule	n/a	Taiwan	Century		
Longivol (plus estrogen)	methyltestosterone	1 mg tablet	n/a	Spain	Medical S.A.		
Macrabone	nandrolone phenylpropionate	25 mg/ml	n/a	Taiwan	Ta Fong		
Malogen	testosterone suspension	100 mg/ml	10ml vial	U.S.	Forest	[NLM]	
Malogen Aqueous	testosterone suspension	25, 50 mg/ml	n/a	Canada	Germiphene	[NLM]	
Malogen Cyp	testosterone cypionate	100,200 mg/ml	10 ml vial	U.S.	Forest	[NLM]	
Malogen In Oil	testosterone propionate	100 mg/ml	10 ml vial	Canada	Germiphene	[NLM]	
Malogex LA200	testosterone enanthate	200 mg/ml	10 ml vial	Canada	Germiphene	[NLM]	

Malotrone	testosterone suspension	100 mg/ml	20 ml vial	U.S.	Bluco	[NLM]	
Masterid	drostanolone propionate	100 mg/2ml	2 ml amp	Germany	Gruenthal	[NLM]	
Masteril	drostanolone propionate	100 mg/2ml	2 ml ampule	Bulgaria	Syntex	[NLM]	
Masteril	drostanolone propionate	100 mg/2ml	2 ml amp	United Kingdom	Syntex	[NLM]	
Masteron	drostanolone propionate	100 mg/2ml	2 ml amp	Belgium	Sarva-Syntex	[NLM]	
Masteron	drostanolone propionate	100 mg/2ml	2 ml amp	Portugal	Cilag	[NLM]	
Mastisol	drostanolone propionate	5% injection sol.	n/a	Japan	Shionogi	[NLM]	
Matogen 100/200 L.A.	testosterone enanthate	100,200 mg/ml	10 ml vial	U.S.	Forest	[NLM]	
Maxibolin	ethylestrenol	2 mg tablet	n/a	U.S.	Organon	[NLM]	
Maxibolin Elixir	ethylestrenol	2mg/5ml	n/a	U.S.	Organon	[NLM]	
Maxigan	boldenone undecylenate	50 mg/ml	10, 50 ml vial	Mexico	Inpei		VET
Mediatric	methyltestosterone	10mg tablet	n/a	U.S.	Wyeth-Ayerst	[NLM]	
Megagrisevit-Mono	clostebol acetate	15 mg dragee	30 dragee box	Germany	Pharmacia	[NLM]	
Megagrisevit-Mono	clostebol acetate	10mg/1.5ml	1.5 ml vial	Germany	Pharmacia	[NLM]	
Melic	methandrostenolone	5 mg tablet	1000 tablet box, bottle	Thailand	Phanmasant		
Menabol	stanozolol (oral)	5 mg tablet	100 tablet box	India	n/a		
Menabolin	nandrolone phenylpropionate	25 mg/ml	1 ml ampule	Egypt	Theramex / Memphis		
Mesterolon	mesterolone	25 mg tablet	n/a	Philippines	Brown & Burk		
Mesterolon	mesterolone	25 mg tablet	n/a	Sweden	Schering	[NLM]	
Mesteron	methyltestosterone	10mg tablet	n/a	Poland	Jelfa	[NLM]	
Mestoranum	mesterolone	25 mg tablet	n/a	Denmark	Schering		
Mestoranum	mesterolone	25 mg tablet	n/a	Norway	Sobering	[NLM]	
Metabol	nandrolone phenylpropionate	25 mg/ml	1 ml ampule	India	Jagsonpal		
Metabolin	nandrolone phenylpropionate	25 mg/ml	n/a	Taiwan	Metro		
Metaboline	methandrostenolone	2 mg tablet	60, 500 tablet bottle	Canada	Desbergers	[NLM]	
Metabolon 25	methenolone acetate	25 mg tablet	100 tablet bottle	Mexico	Bratis Labs		VET
Metadec	nandrolone decanoate	25, 50 mg/ml	1 ml ampule	India	Jagsonpal		
Metanabol	methandrostenolone	5 mg tablet	20 tablet box	Poland	Jelfa		
Metanabol	methandrostenolone	5 mg tablet	20 tablet box	Poland	Polfa	[NLM]	
Metanabol	methandrostenolone	l mg tablet	20 tablet box	Poland	Polfa	[NLM]	
Metanabol	methandrostenolone	0.5% cream	n/a	Poland	Polfa	[NLM]	
Metandiabol	methandrostenolone	25 mg/ml	50 ml vial	Mexico	Quimper		VET
Metandienon	methandrostenolone	5 mg tablet	100 tablet box	Russia	Bioreaktor		
Metandren	methyltestosterone	5 mg sub. dragee	n/a	U.S.	Ciba	[NLM]	
Metandren	methyltestosterone	10, 25 mg tablet	n/a	U.S.	Ciba	[NLM]	
Metandren	methyltestosterone	10, 25 mg tablet	100 tablet bottle	U.S.	Novartis	[NLM]	
Metandrol 10	methandrostenolone	10mg tablet	500 tablet bottle	Mexico	Bratis Labs		VET
Metandrostenolon	methandrostenolone	5 mg tablet	100 tablet box	Russia	Akrihin	[NLM]	
Metandrostenolon	methandrostenolone	5 mg tablet	100 tablet box	Russia	Akrikhin		
Metandrostenolon	methandrostenolone	5 mg tablet	100 tablet box	Russia	Bioreaktor	[NLM]	
Metesto	methyltestosterone	25 mg tablet	100 tablet bottle	Thailand	Acdhon		
Methanabol	methandrostenolone	5 mg tablet	500 tablet pouch	Thailand	British Dragon		
Methanabol	methandrostenolone	50 mg tablet	100 tablet pouch	Thailand	British Dragon		
Methandienone	methandrostenolone	5, 10mg tablet	100,1000 tablet bottle	Mexico	Ttokkyo		VET
Methandon	methandrostenolone	5 mg tablet	1000 tablet bottle	Thailand	Acdhon Co.		
Methandriol	methylandrostenediol dipropionate	75 mg/ml	10 ml vial	Australia	Ilium/Troy	[NLM]	VET
Methandriol Dipropionate	Methandriol Dipropionate	75mg/ml	10ml vial	Thailand	British Dragon		
Methasus 50	methylandrostenediol dipropionate	50 mg/ml	20 ml vial	Australia	Jurox	[NLM]	VET
Methyldiol	methylandrostenediol	2 mg tablet	n/a	U.S.	Vortech	[NLM]	

Methyldiol Aqueous	methylandrostenediol	50mg/ml	n/a	U.S.	Vortech	[NLM]	
Methyltestosterone	methyltestosterone	10 mg tablet	n/a	U.S.	Goldline	[NLM]	
Methyltestosterone	methyltestosterone	10mg tablet	n/a	U.S.	Global		
Metil Testosteron	methyltestosterone	10mg tablet	50 tablet box	Rumania	Terapia		
Metil Thomsina S	methyltestosterone	10 mg tablet	20 tablet box	Uruguay	Celsius		
Metil-Test	methyltestosterone	50 mg tablet	100 tablet bottle	Mexico	Brovel		VET
Metiltestosterona	methyltestosterone	n/a	n/a	Paraguay	Botica		
Metormon	drostanolone propionate	100 mg/2ml	2 ml amp	Spain	Syntex	[NLM]	
Metyandrostendiol	methylandrostenediol	10, 25 mg tablet	n/a	Poland	Jelfa	[NLM]	
mibolerone drops	mibolerone	100 meg/ml	55 mg bottle	U.S.	Wedgewood		VET
Miotolan	furazabol	1 mg tablet	n/a	Japan	Daiichi Seiyaku	[NLM]	
Miro Depo	testosterone cypionate	125 mg/ml	2 ml vial	Korea	Hanil Pharm		
Mitgan 50	boldenone undecylenate	50 mg/ml	50 ml vial	Columbia	California		VET
Myobolin	nandrolone decanoate	25 mg/ml	1 ml ampule	India	Troikaa		
Nabolic	stanozolol (inj)	2mg/ml	50 ml vial	Argentina	Chinfield Ind.		VET
Nabolic Strong	stanozolol (inj)	25mg/ml	50 ml vial	Argentina	Chinfield Ind.		VET
Nandoral	ethylestrenol	.5 mg tablet	100, 500 tablet bottle	Australia	Intervet		VET
Nandrobolic	nandrolone phenylpropionate	25 mg/ml	n/a	U.S.	Forest	[NLM]	
Nandrobolic L.A.	nandrolone decanoate	100 mg/ml	1 , 2 ml vial	U.S.	Forest	[NLM]	
Nandrolin	nandrolone phenylpropionate	50 mg/ml	25 ml vial	Australia	Intervet		VET
Nandrolin	nandrolone phenylpropionate	25 mg/ml	10 ml vial	Australia	Intervet		VET
Nandrolona 300 L.A.	nandrolone decanoate	300mg/ml	10ml vial	Mexico	Ttokkyo		VET
nandrolona decanoato	nandrolone decanoate	50 mg/ml	1 ml ampule	Chile	Chile		
nandrolone decanoate	nandrolone decanoate	200 mg/2ml	2 ml vial	Greece	Norma Hellas		
nandrolone decanoate	nandrolone decanoate	100mg/ml	1,2 ml vial	U.S.	Lyphomed	[NLM]	
nandrolone decanoate	nandrolone decanoate	l00mg/ml	1, 2 ml vial	U.S.	Quad	[NLM]	
nandrolone decanoate	nandrolone decanoate	50, 100, 200 mg/ml	1, 2 ml vial	U.S.	Steris	[NLM]	
Nandrolone Decanoate Inj	nandrolone decanoate	100 mg/ml	2 ml vial	U.S.	Watson Pharma		
Nandrolone Decanoate Inj	nandrolone decanoate	200 mg/ml	1 ml vial	U.S.	Watson Pharma		
nandrolone phenylpropionate	nandrolone phenylpropionate	50,100mg/ml	2 ml vial	India	Hayrian Biotogicals	[NLM]	
nandrolone phenylpropionate	nandrolone phenylpropionate	50 mg/ml	n/a	U.S.	Quad	[NLM]	
Nandrosande	nandrolone decanoate	25.50, 100 mg/ml	1 ml ampule	Chile	Sanderson		
Nannismon Depot	testosterone cypionate	50,100 mg/ml	n/a	Taiwan	Chi Sheng		
Nansmon Depot	testosterone propionate	25 mg/ml	n/a	Taiwan	Chi Sheng		
Naposim	methandrostenolone	5 mg tablet	20 tablet box	Rumania	Terapia		
Neo Aphro	methyltestosterone	5 mg tablet	30 tablet	Egypt	Misr		
Neo-Anabolene	methandrostenolone	5 mg tablet	10 tablet strip	Indonesia	Haurus		
Neo-Durabolic	nandrolone decanoate	100, 200 mg/ml	1, 2 ml vial	U.S.	Hauck	[NLM]	
Neo-Hombreol	testosterone propionate	50 mg/ml	n/a	Netherlands	Organon	[NLM]	
Neotest 250	testosterone decanoate	250 mg/ml	10 ml bottle	Mexico	Loeffler		
Nerobol	methandrostenolone	5 mg tablet	20 tablet box	Bulgaria	Gedeon Richter	[NLM]	
Nerobol	methandrostenolone	5 mg tablet	20 tablet box	Hungary	Gedeon Richter	[NLM]	
Nerobol	methandrostenolone	5 mg tablet	20 tablet box	Yugoslavia/FRMR	Galenika	[NLM]	
Nerobolil	nandrolone phenylpropionate	25 mg/ml	1 ml ampule	Bulgaria	Godeon Richter	[NLM]	
Nerobolil	nandrolone phenylpropionate	25 mg/ml	n/a	Hungary	Godeon Richter	[NLM]	
Neurabol	stanozolol (oral)	2 mg capsule	10 capsule box	India	Cadila		
Neurabol Inj	nandrolone phenylpropionate	25 mg/ml	1 ml ampule	India	Cadila		
Neurophen	nandrolone phenylpropionate	25 mg/ml	1 ml ampule	India	Ind-Swift		
Nilevar	norethandrolone	10mg tablet	30 tablet bottle	France	Searle		

Nilevar	norethandrolone	10mg tablet	30 tablet bottle	Switzerland	Searie	[NLM]	
Nilevar	norethandrolone	10 mg tablet	100 tablet bottle	U.S.	Searle		
Nitrotain	ethylestrenol	15mg/4gram	60, 250,1000 gram tube	Australia	Nature-Vet		VET
Norabon	nandrolone phenylpropionate	25 mg/ml	1 ml ampule	Thailand	Phihalab		
Norandren	nandrolone decanoate	50, 200 mg/ml	10, 50ml vial	Mexico	Brovel		VET
Novandrol	methylandrostenediol	10, 25 mg dragee	n/a	Yugoslavia/FRMR	Galenika	[NLM]	
Nu-Bolic	nandrolone phenylpropionate	25 mg/ml	n/a	U.S.	Seatrace	[NLM]	
Nurezan	nandrolone decanoate	50 mg/ml	1 ml ampule	Greece	Rafarm		
Nuvir	testosterone undecanoate	40 mg capsules	30 capsule bottle	India	Organon		
ODK	fluoxymesterone	5 mg capsule	n/a	Taiwan	Winston		
Omnadren	Omnadren (testosterone blend)	250 mg/ml	1 ml ampule	Poland	Jelfa		
Omnadren	Omnadren (testosterone blend)	250 mg/ml	1ml ampule	Poland	Polfa	[NLM]	
Omnadren 250	Omnadren (testosterone blend)	250mg/ml	1 ml ampule	Bulgaria	Jelfa		
Orabol-H	ethylestrenol	100 mg/5g paste	30 ml plastic tube	Australia	Vetsearch	[NLM]	VET
Orabolin®	ethylestrenol	2 mg tablet	n/a	Belgium	Organon	[NLM]	
Orabolin®	ethylestrenol	2 mg tablet	10 tablet box	India	Infar		
Orabolin®	ethylestrenol	2 mg tablet	100 tablet box	Pakistan	Organon		
Orabolin®	ethylestrenol	2 mg tablet	n/a	South Africa	Donmed/Organon	[NLM]	
Orabolin®	ethylestrenol	2 mg tablet	n/a	United Kingdom	Organon	[NLM]	
Oralsterone	fluoxymesterone	5 mg capsule	n/a	Taiwan	Long Der		
Ora-Testryl	fluoxymesterone	5 mg tablet	100 tablet bottle	U.S.	Squibb Mark	[NLM]	
Oreton	methyltestosterone	n/a	n/a	Venezuela	n/a		
Oreton	testosterone propionate	25 mg/ml	n/a	Mexico	Goldline	[NLM]	
Oreton Methyl	methyltestosterone	10 mg sub. tablet	n/a	U.S.	Schering	[NLM]	
Oreton Methyl	methyltestosterone	10mg tablet	n/a	U.S.	Schering	[NLM]	
Orgabolin	ethylestrenol	2 mg tablet	n/a	Indonesia	Organon		
Orgabolin	ethytestrenol	2 mg tablet	n/a	Netherlands	Organon	[NLM]	
Orgabolin	ethytestrenol	2 mg tablet	n/a	Turkey	Santa	[NLM]	
Orgabolin Drops	ethytestrenol	2mg	n/a	Turkey	Santa	[NLM]	
Oxafort	oxandrolone	5 mg tablet	100 tablet bottle	Mexico	Loeffler		VET
Oxanabol	oxandrolone	5 mg tablet	100 tablet pouch	Thailand	British Dragon		
Oxandrin®	oxandrolone	2.5,10 mg tablet	100 tablet bottle	U.S.	BTG		
Oxandrolone	oxandrolone	5 mg tablet	30 tablet bottle	Belize	Planet Pharmacy		
Oxandrolone	oxandrolone	2.5 tablet	100 tablet bottle	Mexico	Ttokkyo	[NLM]	VET
Oxandrolone	oxandrolone	5 mg tablet	100 tablet bottle	Mexico	Ttokkyo		VET
Oxandrolone 10	oxandrolone	10 mg tablet	100 tablet bottle	Mexico	Bratis Labs		VET
Oxandrolone SPA	oxandrolone	2.5 mg tablet	30 tablet box	Italy	SPA	[NLM]	
Oxandrolone SPA (Export)	oxandrolone	2.5 mg tablet	30 tablet box	Italy	SPA		
Oxandrovet	oxandrolone	5 mg tablet	100 tablet bottle	Mexico	Denkall		VET
Oximetalon	oxymetholone	75 mg tablet	100 tablet bottle	Mexico	Denkall		VET
Oxitosona 5O	oxymetholone	50 mg tablet	100 tablet box	Spain	Syntex	[NLM]	
Oxitron 5O	oxymetholone	50 mg tablet	100 tablet bottte	Mexico	Bratis Labs		VET
Oxybolone	oxymetholone	50 mg tablet	20 tablet box	Greece	Genapharm		
Oxydrol	oxymetholone	100 mg tablet	50 tablet pouch	Thailand	British Dragon		
Oxylone	oxymetholone	50 mg tablet	100 tablet bottle	Malaysia	Duopharma		
Oxymetholone	oxymetholone	50 mg tablet	30 tablet bottle	Belize	Planet Pharmacy		
Oxymetholone	oxymetholone	50 mg tablet	n/a	Malaysia	Sime Darby		
Oxymetholone	oxymetholone	50 mg tablet	100 tablet pouch	Thailand	British Dispensary		
Oxymetholone Dongindang	oxymetholone	n/a	n/a	Korea	Dongindang		

Oxymetholone HanBul	oxymetholone	50 mg tablet	n/a	Korea	HanBul		
Oxymetholone HanSeo	oxymetholone	50 mg tablet	100 tablet bottle	Korea	HanSeo		
Oxymetholone Korea United	oxymetholone	50 mg tablet	n/a	Korea	Korea United		
Oxymetholone Miverva	oxymetholone	50 mg tablet	100 tablet	Greece	Minerva	[NLM]	
Oxymetolona 50	oxymetholone	50 mg tablet	100 tablet bottle	Mexico	Ttokkyo		VET
Oxytone 50	oxymetholone	50 mg tablet	100 tablet bottle	Thailand	SB Laboratories		
Panteston	testosterone undecanoate	40 mg capsules	60 capsule bottle	Finland	Organon		
Panteston	testosterone undecanoate	40 mg capsules	n/a	Latvia	Organon		
Panteston	testosterone undecanoate	40 mg capsules	n/a	Lithuania	Organon		
Panteston	testosterone undecanoate	40 mg capsules	30,60 capsule bottle	Peru	Organon		
Panteston capsules	testosterone undecanoate	40 mg capsules	n/a	New Zealand	Organon		
Pantestone	testosterone undecanoate	40 mg capsules	60 capsule bottle	Estonia	Organon		
Pantestone	testosterone undecanoate	40 mg capsules	60 capsule bottle	France	Organon		
Parabolan	trenbolone hexahydrobenzytearbonate	76 mg/1.5 ml	1.5 ml ampule	France	Negma	[NLM]	
Parabolan Tabs (Export)	trenbolone acetate	25 mg tablet	20 tablet pouch	Thailand	British Dragon		
Permastril	drostanolone propionate	100 mg/2ml	2 ml ampule	France	Cassenne	[NLM]	
Plenastril	oxymetholone	50 mg tablet	n/a	Switzerland	Proto chemie	[NLM]	
Pluriviron	mesterolone	25 mg dragee	30 dragee box	Germany	Asche	[NLM]	
PMS-Testosterone Enanthate	testosterone enanthate	200 mg/ml	10 ml vial	Canada	Pharmascience		
Polysteron 250	Sustanon 250 (testosterone blend)	250 mg/ml	1 ml ampule	Venezuela	Organon		
Porkybol 1%	boldenone undecylenate	10 mg/ml	10, 50,100 ml vial	Columbia	Compania California		VET
Primobolan Depot	methenolone enanthate	100 mg/ml	1 ml ampule	Egypt	Schering/CID	[NLM]	
Primobolan®	methenolone acetate	5 mg tablet	n/a	Austria	Schering	[NLM]	
Primobolan®	methenolone acetate	5 mg tablet	n/a	Belgium	Schering	[NLM]	
Primobolan®	methenolone acetate	5 mg tablet	n/a	Bolivia	Schering	[NLM]	
Primobolan®	methenolone acetate	5 mg tablet	n/a	Costa Rica	Schering	[NLM]	
Primobolan®	methenolone acetate	5 mg tablet	n/a	Dom. Rep.	Schering	[NLM]	
Primobolan®	methenolone acetate	5 mg tablet	n/a	Ecuador	Schering	[NLM]	
Primobolan®	methenolone acetate	5 mg tablet	n/a	El Salvador	Schering	[NLM]	
Primobolan®	methenolone acetate	50 mg tablet	n/a	France	Schering	[NLM]	
Primobolan®	methenolone acetate	5 mg tablet	n/a	Germany	Schering	[NLM]	
Primobolan®	methenolone acetate	5 mg tablet	n/a	Guatemala	Schering	[NLM]	
Primobolan®	methenolone acetate	5 mg tablet	n/a	Honduras	Schering	[NLM]	
Primobolan®	methenolone acetate	5 mg tablet	100,1000 tablet box	Japan	Schering		
Primobolan®	methenolone acetate	5 mg tablet	n/a	Mexico	Schering	[NLM]	
Primobolan®	methenolone acetate	5 mg tablet	n/a	Nicaragua	Schering	[NLM]	
Primobolan®	methenolone acetate	5 mg tablet	n/a	Panama	Schering	[NLM]	
Primobolan®	methenolone acetate	5 mg tablet	n/a	South Africa	Schering/Berlimed	[NLM]	
Primobolan® Acetate	methenolone acetate	25 mg/ml	1 ml ampule	Germany	Schering	[NLM]	
Primobolan® Depot	methenolone enanthate	100 mg/ml	1 ml ampule	Austria	Schering	[NLM]	
Primobolan® Depot	methenolone enanthate	100 mg/ml	1 ml ampule	Belgium	Schering	[NLM]	
Primobolan® Depot	methenolone enanthate	100 mg/ml	1 ml ampule	Czech. Rep.	Schering	[NLM]	
Primobolan® Depot	methenolone enanthate	100 mg/ml	1 ml ampule	Ecuador	Schering		
Primobolan® Depot	methenolone enanthate	100 mg/ml	1 ml ampule	France	Schering	[NLM]	
Primobolan® Depot	methenolone enanthate	100 mg/ml	1 ml ampule	Germany	Schering	[NLM]	
Primobolan® Depot	methenolone enanthate	100 mg/ml	1 ml ampule	Greece	Schering	[NLM]	
Primobolan® Depot	methenolone enanthate	100 mg/ml	1 ml ampule	Guatemala	Schering		
Primobolan® Depot	methenolone enanthate	100 mg/ml	1 ml ampule	Italy	Schering	[NLM]	
Primobolan® Depot	methenolone enanthate	50 mg/ml	1 ml ampule	Japan	Schering	[NLM]	

Primobolan® Depot	methenolone enanthate	100 mg/ml	1 ml ampule	Japan	Schering		
Primobolan® Depot	methenolone enanthate	50 mg/ml	1 ml ampule	Mexico	Schering		
Primobolan® Depot	methenolone enanthate	100 mg/ml	1 ml ampule	Paraguay	Schering		
Primobolan® Depot	methenolone enanthate	100 mg/ml	1 ml ampule	Portugal	Schering	[NLM]	
Primobolan® Depot	methenolone enanthate	100 mg/ml	1 ml ampule	South Africa	Schering/Berlimed	[NLM]	
Primobolan® Depot	methenolone enanthate	100 mg/ml	1 ml ampule	Spain	Schering		
Primobolan® Depot	methenolone enanthate	100 mg/ml	1 ml ampule	Switzerland	Schering	[NLM]	
Primobolan® Depot	methenolone enanthate	100 mg/ml	1 ml ampule	Turkey	Schering		
Primobolan® Depot mite	methenolone enanthate	50 mg/ml	1 ml ampule	Germany	Schering	[NLM]	
Primobolan® S	methenolone acetate	25 mg tablet	n/a	Finland	Leiras	[NLM]	
Primobolan® S	methenolone acetate	25 mg tablet	n/a	Germany	Schering	[NLM]	
Primobolan® S	methenolone acetate	25 mg tablet	n/a	Netherlands	Schering	[NLM]	
Primobolan® S	methenolone acetate	25 mg tablet	50 tablet bottle	South Africa	Schering/Berlimed		
Primobolan® S	methenolone acetate	25 mg tablet	n/a	Thailand	Schering	[NLM]	
Primoniat®-Depot 100	Testoviron (testosterone blend)	135 mg/ml	1 ml ampule	Chile	Schering-Chile	[NLM]	
Primoniat®-Depot 250	testosterone enanthate	250 mg/ml	1 ml ampule	Chile	Schering-Chile	[NLM]	
Primo-Plus 100	methenolone enanthate	100mg/ml	1 ml ampule	Mexico	Ttokkyo		VET
Primo-Plus 50	methenolone acetate	50 mg tablet	100 tablet bottle	Mexico	Ttokkyo		VET
Primoteston Depot 100	Testoviron (testosterone blend)	135 mg/ml	1 ml ampule	Australia	Schering	[NLM]	
Primoteston Depot 50	Testoviron (testosterone blend)	75 mg/ml	1 ml ampule	Australia	Schering	[NLM]	
Primoteston®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Egypt	Schering/CID		
Primoteston®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Finland	Leiras	[NLM]	
Primoteston®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Norway	Schering		
Primoteston®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	United Kingdom	Sobering	[NLM]	
Primoteston®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Australia	Schering		Vet
Primoteston®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Ecuador	Schering		
Primoteston®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Guatemala	Schering		
Primoteston®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Jordan	Schering		
Primoteston®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Kuwait	Schering	[NLM]	
Primoteston®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Mauritius	Schering		
Primoteston®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Mexico	Schering		
Primoteston®-Depot	testosterone enanthate	250 mg/ml	1 ml syringe	New Zealand	Schering		
Primoteston®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Sudan	Schering		
Primoteston®-Depot 100	Testoviron (testosterone blend)	135 mg/ml	1 ml ampule	Egypt	Schering/CID		
Progro-H (plus estradiol)	testosterone propionate (implant)	20 mg/pellet	n/a	Australia	Pro Beef		VET
Pronabol-5	methandrostenolone	5 mg tablet	100 tablet box	India	P&B Labs	[NLM]	
Propionat QV 1OO	testosterone propionate	100 mg/ml	10 ml vial	Mexico	Quality Vet		VET
Propionato de Testosterona	testosterone propionate	25 mg/ml	20 ml vial	Argentina	Induvet		VET
Protabol	methylandrostenediol dipropionate	75 mg/ml	10 ml vial	Australia	Protabol		VET
Protosin Inj	nandrolone phenylpropionate	25 mg/ml	n/a	Taiwan	Astar		
Proviron	mesterolone	25 mg tablet	20 tablet box	Algeria	Schering		
Proviron	mesterolone	25 mg tablet	50 tablet box	Taiwan	Schering		
Proviron	mesterolone	25 mg tablet	20 tablet box	Turkey	Schering		
Proviron®	mesterolone	25 mg tablet	n/a	Argentina	Schering		
Proviron®	mesterolone	25, 50 mg tablet	n/a	Australia	Schering		
Proviron®	mesterolone	25 mg tablet	50 tablet bottle	Austria	Schering		
Proviron®	mesterolone	25 mg tablet	50 tablet bottle	Belgium	Schering		
Proviron®	mesterolone	25 mg tablet	20 tablet box	Brazil	Schering		
Proviron®	mesterolone	25 mg tablet	20, 50 tablet box	Bulgaria	Schering		

Proviron®	mesterolone	25 mg tablet	20 tablet box	Colombia	Schering		
Proviron®	mesterolone	25 mg tablet	n/a	Costa Rica	Schering		
Proviron®	mesterolone	25 mg tablet	20 tablet box	Croatia	Schering		
Proviron®	mesterolone	25 mg tablet	20, 50 tablet box	Czech. Rep.	Schering		
Proviron®	mesterolone	25 mg tablet	20 tablet bottle	Dom. Rep.	Schering		
Proviron®	mesterolone	25 mg tablet	20 tablet box	Egypt	Schering/CID	[NLM]	
Proviron®	mesterolone	25 mg tablet	n/a	El Salvador	Schering		
Proviron®	mesterolone	25 mg tablet	20 tablet box	Estonia	Schering	[NLM]	
Proviron®	mesterolone	25 mg tablet	n/a	Finland	Leiras		
Proviron®	mesterolone	25 mg tablet	n/a	France	Schering	[NLM]	
Proviron®	mesterolone	25 mg tablet	50 tablet bottle	Germany	Schering	[NLM]	
Proviron®	mesterolone	25 mg tablet	20 tablet bottle	Greece	Schering		
Proviron®	mesterolone	25 mg tablet	n/a	Guatemala	Schering		
Proviron®	mesterolone	25 mg tablet	n/a	Honduras	Schering		
Proviron®	mesterolone	25 mg tablet	10, 15, 20, 50, 100, 150 tab bottle	Hungary	Schering		
Proviron®	mesterolone	25 mg tablet	30 tablet box	India	Schering		
Proviron®	mesterolone	25 mg tablet	n/a	Indonesia	Schering		
Proviron®	mesterolone	25 mg tablet	20, 50 tablet box	Israel	Schering		
Proviron®	mesterolone	25 mg tablet	20 tablet box	Italy	Schering		
Proviron®	mesterolone	25 mg tablet	20 tablet box	Latvia	Schering	[NLM]	
Proviron®	mesterolone	25 mg tablet	20 tablet box	Lithuania	Schering	[NLM]	
Proviron®	mesterolone	25 mg tablet	10 tablet box	Mexico	Schering		
Proviron®	mesterolone	25 mg tablet	50 tablet bottle	Netherlands	Schering		
Proviron®	mesterolone	25 mg tablet	n/a	Nicaragua	Schering		
Proviron®	mesterolone	25 mg tablet	n/a	Panama	Schering		
Proviron®	mesterolone	25 mg tablet	20 tablet box	Paraguay	Schering		
Proviron®	mesterolone	25 mg tablet	20 tablet box	Poland	Schering		
Proviron®	mesterolone	25 mg tablet	20 tablet box	Portugal	Schering		
Proviron®	mesterolone	25 mg tablet	20 tablet bottle	Russia	Schering		
Proviron®	mesterolone	25 mg tablet	20, 50 tablet bottle	Slovakia	Schering		
Proviron®	mesterolone	25 mg tablet	20, 100 tablet bottle	South Africa	Schering/Beriimed		
Proviron®	mesterolone	25 mg tablet	20 tablet box	Spain	Schering		
Proviron®	mesterolone	25 mg tablet	n/a	Switzerland	Schering	[NLM]	
Proviron®	mesterolone	25 mg tablet	20 tablet box	Ukraine	Schering		
Proviron®	mesterolone	25 mg tablet	30 tablet box	United Kingdom	Schering		
Proviron®	mesterolone	25 mg tablet	n/a	Uruguay	Schering		
Proviron®	mesterolone	25 mg tablet	15 tablet box	Venezuela	Schering		
Proviron®	mesterolone	25 mg tablet	n/a	Yugoslavia FRMR	Alkoid		
Proviron®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Venezuela	Schering		
Provironum	mesterolone	25 mg tablet	50 tablet box	Singapore	Organon		
Provironum	mesterolone	25 mg tablet	150 tablet box	Thailand	Schering		
Psychobolan	nandrolone undecanoate	80.5 mg/ml	1 ml ampule	Greece	Theramex	[NLM]	
Ptenastril	oxymetholone	50 mg tablet	n/a	Austria	Grunenthal	[NLM]	
Reforvit	methandrostenolone	25 mg tab	100, 300 tablet bottle	Mexico	Loeffler		VET
Reforvit-B	methandrostenolone	25mg/ml	10, 50ml	Mexico	Loeffler		VET
Restandol	testosterone undecanoate	40 mg capsules	60 capsule bottle	Denmark	Organon		
Restandol	testosterone undecanoate	40 mg capsules	60 capsule bottle	Greece	Organon		
Restandol	testosterone undecanoate	40 mg capsules	n/a	Taiwan	Organon		
Restandol	testosterone undecanoate	40 mg capsules	28, 56 capsule box	United Kingdom	Organon		

Restauvit	methandrostenolone	2 mg tablet	n/a	Mexico	Ciba, Rugby	[NLM]	
Restore	mesterolone	25 mg tablet	20 tablet box	India	Brown & Burk		
Retabolil	nandrolone decanoate	25, 50 mg/ml	1 ml ampule	Bulgaria	Gedeon Richter	[NLM]	
Retabolil	nandrolone decanoate	50 mg/ml	1 ml ampule	Egypt	Medimpex/Alxndria		
Retabolil	nandrolone decanoate	50 mg/ml	1 ml ampule	Estonia	Gedeon Richter		
Retabolil	nandrolone decanoate	25, 50 mg/ml	1 ml ampule	Hungary	Gedeon Richter		
Retabolil	nandrolone decanoate	25, 50 mg/ml	1 ml ampule	Malaysia	Gedeon Richter		
Retabolin	nandrolone decanoate	50 mg/ml	1 ml ampule	Russia	Medexport Russia	[NLM]	
Revator-200 (plus estradiol)	trenbolone acetate	20 mg pellet	100 pellet cartridge	U.S.	Intervet		VET
Revator-G (plus estradiol)	trenbolone acetate	20 mg pellet	20 pellet cartridge	U.S.	Intervet		VET
Revator-H (plus estradiol)	trenbolone acetate	20 mg pellet	70 pellet cartridge	U.S.	Intervet		VET
Revator-H (plus estradiol)	trenbolone acetate	20 mg pellet	70 pellet cartridge	Canada	Intervet		VET
Revator-H (plus estradiol)	trenbolone acetate	20 mg pellet	70 pellet cartridge	U.S.	Hoechst-Roussel	[NLM]	VET
Revator-IH (plus estradiol)	trenbolone acetate	20 mg pellet	40 pellet cartridge	U.S.	Intervet		VET
Revator-IS (plus estradiol)	trenbolone acetate	20 mg pellet	40 pellet cartridge	U.S.	Intervet		VET
Revator-S (plus estradiol)	trenbolone acetate	20 mg pellet	60 pellet cartridge	U.S.	Hoechst-Roussel	[NLM]	VET
Revator-S (plus estradiol)	trenbolone acetate	20 mg pellet	60 pellet cartridge	Canada	Intervet		VET
Revator-S (plus estradiol)	trenbolone acetate	20 mg pellet	60 pellet cartridge	U.S.	Intervet		VET
Ridrot Testosterone Inj.	testosterone cypionate	75 mg/ml	250 ml vial	Australia	Troy		VET
Roboral	oxymetholone	50 mg tablet	100 tablets	Israel	Abic/Ramat-Gan	[NLM]	
Ropel Liquid Testosterone	testosterone enanthate	75 mg/ml	200 ml vial	Australia	Jurox		
Ropel Testosterone Pellets	testosterone (implant)	23.5 mg pellet	450,600 pellet bottle	Australia	Jurox		VET
Rubolin	nandrolone phenylpropionate	25 mg/ml	n/a	Taiwan	Ying Yuan		
RWR Deca 50	nandrolone decanoate	50 mg/ml	10 ml vial	Australia	RWR		VET
RWR Suspension	testosterone suspension	25, 50, 100, mg/ml	n/a	Australia	RWR		VET
Sanabolicum	nandrolone cyclohexylpropionate	25, 50 mg/ml	1 ml ampule	Egypt	Biochemie/Nile		
Sanabolicum-Vet	nandrolone cyclohexylpropionate	50mg/ml	10 ml vial	Austria	Werfft-Chemie		VET
Scheinpharma Testone-Cyp	testosterone cypionate	100 mg/ml	10 ml vial	Canada	Schein		
Seidon	stanozolol (oral)	2 mg tablet	100 tablet box	Korea	Seoul Pharm		
Sidomon	fluoxymesterone	5 mg capsule	n/a	Taiwan	n/a		
Silabolin	ethytestrenol	25. 50 mg/ml	1 ml ampule	Russia	Farmadon	[NLM]	
Sinbolin	nandrolone phenylpropionate	25 mg/ml	n/a	Taiwan	Sinton		
Sostenon 250®	Sustanon 250 (testosterone blend)	250 mg/ml	1 ml ampule	Mexico	Organon		
Sostenon 250®	Sustanon 250 (testosterone blend)	250 mg/ml	1 ml ampule	Spain	Organon	[NLM]	
Spectriol	methylandrostenediol (blend)	65 mg/ml	10 ml vial	Australia	RWR		VET
Stabon	stanozolol (oral)	2 mg tablet	n/a	Korea	n/a		
Stan QV 100	stanozolol (inj)	100mg/ml	20 ml vial	Mexico	Quality Vet		VET
Stan QV 50	stanozolol (inj)	50mg/ml	20 ml vial	Mexico	Quality Vet		VET
Stanabol	stanozolol (oral)	5 mg tablet	250 tablet pouch	Thailand	British Dragon		
Stanabol	stanozolol (oral)	5 mg tablet	200,1000 tablet bottle	Thailand	British Dragon		
Stanabol	stanozolol (oral)	5 mg tablet	200 tablet pouch	Thailand	British Dragon		
Stanabol	stanozolol (oral)	50 mg tablet	100 tablet pouch	Thailand	British Dragon		
Stanabolic	stanozolol (inj)	50mg/ml	20 ml vial	Australia	Ilium/Troy		VET
Stanazol	stanozolol (inj)	50mg/ml	20, 50 ml vial	Australia	RWR	[NLM]	VET
Stanazolic	stanozolol (inj)	50, 100mg/ml	20ml, 10ml vial	Mexico	Denkall		VET
Stanazolic	stanozolol (oral)	6mgcap	300 capsule bottle	Mexico	Denkall		VET
Stanazolic	stanozolol (oral)	10 mg tablet	100 tablet bottle	Mexico	Denkall		VET
Stand-V	stanozolol (inj)	50, 100 mg/ml	20 ml vial	Mexico	Ttokkyo		VET
Stanol	stanozolol (oral)	2 mg tablet	n/a	Taiwan	Hua Shin		

Stanol	stanozolol (oral)	5 mg tablet	200 tablet bottle	Thailand	Body Research		
Stanol 10	stanozolol (oral)	10mg tablet	250 tablet bottle	Mexico	BratisLabs		VET
Stanol 50	stanozolol (inj)	50mg/ml	20 ml vial	Mexico	BratisLabs		VET
Stanol-V	stanozolol (oral)	10 mg tablet	100,500 tablet bottte	Mexico	Ttokkyo		VET
Stanosus	stanozolol (inj)	50mg/ml	20 ml vial	Australia	Jurox	[NLM]	VET
Stanozodon	stanozolol (oral)	2 mg tablet	1000 tablet bottte	Thailand	AcdhonCo.		
stanozolol	stanozolol (oral)	25 mg tablet	30 tablet bottle	Belize	Planet Pharmacy		
stanozolol	stanozolol (oral)	2 mg tablet	n/a	Taiwan	Chen Ho		
stanozolol Tab	stanozolol (oral)	5 mg tablet	30 tablet box	Greece	Genepharm		
Stanzol	stanozolol (oral)	5 mg tablet	200 tablet bottle	Thailand	SB Laboratories		
Sten	Sten (testosterone blend)	50mg/ml	2 ml ampule	Mexico	Atlantis		
Stenolon	methandrostenolone	5 mg tablet	20 tablet box	Czech. Rep.	Leciva	[NLM]	
Stenolon	methandrostenolone	1 mg tablet	20 tablet box	Czech. Rep.	Leciva	[NLM]	
Stenox	fluoxymesterone	2.5 mg tablet	20 tablet box	Mexico	Atlantis		
Steranabol	clostebol acetate	20 mg/ml	2 ml ampule	Italy	Farmitalia	[NLM]	
Steranabol Ritardo	oxabolone cypionate	12.5 mg/ml	2 ml ampule	Italy	Pharmacia & Upjohn	[NLM]	
Sterobolin	nandrolone decanoate	50 mg/ml	1 ml ampule	Finland	Orion	[NLM]	
Stromba	stanozolol (inj)	50 mg/ml	n/a	United Kingdom	Sterling Research	[NLM]	
Stromba	stanozolol (inj)	50 mg/ml	n/a	Sweden	Sterling- Winthrop	[NLM]	
Stromba	stanozolol (inj)	50 mg/ml	n/a	Sweden	Winthrop	[NLM]	
Stromba	stanozolol (oral)	5 mg tablet	10 tablet box	Belgium	Winthrop	[NLM]	
Stromba	stanozolol (oral)	5 mg tablet	56 tablet box	Greece	n/a		
Stromba	stanozolol (oral)	5 mg tablet	n/a	Hungary	Sterling-Health		
Stromba	stanozolol (oral)	5 mg tablet	n/a	Austria	Berger	[NLM]	
Stromba	stanozolol (oral)	5 mg tablet	n/a	Czech. Rep.	Sterling-Health	[NLM]	
Stromba	stanozolol (oral)	5 mg tablet	n/a	Denmark	Winthrop	[NLM]	
Stromba	stanozolol (oral)	5 mg tablet	n/a	Germany	Winthrop	[NLM]	
Stromba	stanozolol (oral)	5 mg tablet	100 tablet box	Netherlands	Sanofi		
Stromba	stanozolol (oral)	5 mg tablet	n/a	Netherlands	Winthrop	[NLM]	
Stromba	stanozolol (oral)	5 mg tablet	n/a	Sweden	Winthrop	[NLM]	
Stromba	stanozolol (oral)	5 mg tablet	n/a	Switzerland	Winthrop	[NLM]	
Stromba	stanozolol (oral)	5 mg tablet	n/a	United Kingdom	Sanofi	[NLM]	
Stromba	stanozolol (oral)	5 mg tablet	n/a	United Kingdom	Sterling	[NLM]	
Strombaject	stanozolol (inj)	50 mg/ml	n/a	Belgium	Winthrop	[NLM]	
Strombaject	stanozolol (inj)	50 mg/ml	n/a	Germany	Winthrop	[NLM]	
Sunamon Depot Inj	testosterone enanthate	130 mg/ml	n/a	Taiwan	Astar		
Sunamon Inj	testosterone enanthate	250 mg/ml	n/a	Taiwan	Astar		
Super Test-250	Sustanon 250 (testosterone blend)	250 mg/ml	5,10 ml vial	Mexico	Tomel		VET
Superanabolon	nandrolone phenylpropionate	25 mg/ml	1 ml ampule	Czech. Rep.	Spofa		
Superbolin	methylandrostenediol dipropionate	75 mg/ml	10 ml vial	Australia	Vetsearch		VET
Sustanon	Sustanon 250 (testosterone blend)	250 mg/ml	1 ml ampule	Ireland	Organon		
Sustanon	Sustanon 250 (testosterone blend)	250 mg/ml	1 ml ampule	Israel	Organon		
Sustanon	Sustanon 250 (testosterone blend)	250 mg/ml	1 ml ampule	Slovakia	Organon		
Sustanon "250"	Sustanon 250 (testosterone blend)	250 mg/ml	1 ml ampule	Argentina	Organon		
Sustanon "250"	Sustanon 250 (testosterone blend)	250 mg/ml	1 ml ampule	Indonesia	Organon		
Sustanon "250"	Sustanon 250 (testosterone blend)	250 mg/ml	1 ml ampule	Singapore	Organon		
Sustanon "250"	Sustanon 250 (testosterone blend)	250 mg/ml	1 ml ampule	Vietnam	Organon		
Sustanon (Cyctahoh 250)	Sustanon 250 (testosterone blend)	250 mg/ml	1 ml ampule	Russia	Organon		
Sustanon (Cyctahoh)	Sustanon 100 (testosterone blend)	100mg/ml	1 ml ampule	India	Infer		

Sustanon 100	Sustanon 100 (testosterone blend)	100 mg/ml	1 ml ampule	Germany	Organon	[NLM]	
Sustanon '100'®	Sustanon 100 (testosterone blend)	100mg/ml	1 ml ampule	Egypt	Organon/Nile		
Sustanon '100'®	Sustanon 100 (testosterone blend)	100 mg/ml	1 ml ampule	Netherlands	Organon		
Sustanon '100'®	Sustanon 100 (testosterone blend)	100 mg/ml	1 ml ampule	United Kingdom	Organon		
Sustanon 250	Sustanon 250 (testosterone blend)	250 mg/ml	1 ml ampule	Czech. Rep.	Organon		
Sustanon 250	Sustanon 250 (testosterone blend)	250 mg/ml	1 ml ampule	Germany	Organon	[NLM]	
Sustanon 250	Sustanon 250 (testosterone blend)	250 mg/ml	1 ml ampule	New Zealand	Organon		
Sustanon 250	Sustanon 250 (testosterone blend)	250 mg/ml	1 ml ampule	Taiwan	Organon		
Sustanon 250 (Cyctahon)	Sustanon 250 (testosterone blend)	250 mg/ml	1 ml ampule	India	Infar		
Sustanon 250®	Sustanon 250 (testosterone blend)	250 mg/ml	1 ml ampule	Belgium	Organon		
Sustanon 250®	Sustanon 250 (testosterone blend)	250 mg/ml	1 ml ampule	Estonia	Organon		
Sustanon 250®	Sustanon 250 (testosterone blend)	250 mg/ml	1 ml ampule	Finland	Organon		
Sustanon 250®	Sustanon 250 (testosterone blend)	250 mg/ml	1 ml ampule	Netherlands	Organon		
Sustanon 250®	Sustanon 250 (testosterone blend)	250 mg/ml	1 ml ampule	Turkey	Organon		
Sustanon '250'®	Sustanon 250 (testosterone blend)	250 mg/ml	1 ml ampule	Egypt	Organon/Nile		
Sustanon '250'®	Sustanon 250 (testosterone blend)	250 mg/ml	1 ml ampule	Malaysia	Organon		
Sustanon '250'®	Sustanon 250 (testosterone blend)	250 mg/ml	1 ml ampule	Pakistan	Organon		
Sustanon '250'®	Sustanon 250 (testosterone blend)	250 mg/ml	1 ml ampule	South Africa	Donmed/Organon		
Sustanon '250'®	Sustanon 250 (testosterone blend)	250 mg/ml	1 ml ampule	Thailand	Organon		
Sustanon '250'®	Sustanon 250 (testosterone blend)	250 mg/ml	1 ml ampule	United Kingdom	Organon		
Sustanon®	Sustanon 250 (testosterone blend)	250 mg/ml	1 ml ampule	Italy	Organon		
Sustaretard 250	Sustanon 250 (testosterone blend)	250 mg/ml	1 ml ampule	India	BM Pharmaceuticals		
Sustenan 250	Sustanon 250 (testosterone blend)	250 mg/ml	1 ml ampule	Chile	Organon		
Sustenan Oral	testosterone undecanoate	40 mg capsules	n/a	Chile	Organon		
Sustenon 250®	Sustanon 250 (testosterone blend)	250 mg/ml	1 ml ampule	Portugal	Organon		
Sybolin	boldenone undecylenate	25 mg/ml	10 ml vial	Australia	Ranvet		VET
Synasteron	oxymetholone	50 mg tablet	50 tablet bottle	Belgium	Sarva	[NLM]	
Synovex plus (plus estradiol)	trenbolone acetate	25 mg pellet	80 pellet cartridge	Canada	Wyeth		VET
Synovex plus (plus estradiol)	trenbolone acetate	25 mg pellet	80 pellet cartridge	Mexico	Fort Dodge		VET
Synovex plus (plus estradiol)	trenbolone acetate	25 mg pellet	80 pellet cartridge	U.S.	Fort Dodge		VET
Synovex plus (plus estradiol)	trenbolone acetate	25 mg pellet	80 pellet cartridge	U.S.	Syntex	[NLM]	VET
Synovex®-H (plus estradiol)	testosterone propionate (implant)	20 mg/pellet	n/a	Canada	Ayerst		
Synovex®-H (plus estrogen)	testosterone propionate (implant)	25 mg/pellet	80 pellet cartridge	Australia	Fort Dodge		VET
Synovex®-H (plus estrogen)	testosterone propionate (implant)	20 mg/pellet	n/a	Mexico	Fort Dodge		
Synovex®-H (plus estrogen)	testosterone propionate (implant)	20 mg/pellet	n/a	Mexico	Syntex	[NLM]	
Synovex®-H (plus estrogen)	testosterone propionate (implant)	20 mg/pellet	n/a	U.S.	Fort Dodge		VET
Synovex®-H (plus estrogen)	testosterone propionate (implant)	23.5 mg pellet	450 pellets	U.S.	Syntex	[NLM]	VET
T. Lingvalete	methyltestosterone	5 mg sub. dragee	n/a	YugoslaviaFRMR	Gatenika	[NLM]	
Tanoxol	stanozolol (inj)	25 mg/ml	10 ml vial	Argentina	Bumet		VET
Tealigen	fluoxymesterone	5 mg capsule	n/a	Taiwan	Ming ta		
Tepro Hormone	testosterone propionate	100 mg/ml	500 ml vial	Australia	Virbac		VET
Terabon	stanozolol (oral)	2 mg tablet	10 tablet strip	Korea	Jin Yang		
Tesamone	testosterone suspension	25, 50, 100, mg/ml	n/a	U.S.	Dunhall	[NLM]	
Tesone L.A.	testosterone enanthate	200 mg/ml	10 ml vial	U.S.	Sig	[NLM]	
Test 400	Test 400 (testosterone blend)	400 mg/ml	10 ml vial	Mexico	Denkall		VET
Testabol Propionate	testosterone propionate	100 mg/ml	10 ml vial	Thailand	British Dragon		
Testabot Depot	testosterone cypionate	200 mg/ml	10 ml vial	Thailand	British Dragon		
Testa-C	testosterone cypionate	200 mg/ml	10 ml vial	U.S.	Vortech	[NLM]	
Testacyp	testosterone cypionate	100 mg/ml	2 ml vial	India	BM Pharmaceuticals		

Testadiate-Depo	testosterone cypionate	200 mg/ml	10 ml vial	U.S.	Kay	[NLM]	
Testanate No. 1	testosterone enanthate	100 mg/ml	n/a	U.S.	Kenyon	[NLM]	
Testaval	testosterone enanthate	100,200 mg/ml	10 ml vial	U.S.	Legere	[NLM]	
Testen-250	testosterone enanthate	250 mg/ml	2 ml vial	India	BM Pharmaceuticals		
Testenan Depot	testosterone enanthate	250 mg/ml	n/a	Taiwan	Sinton		
Testenat	Testoviron (testosterone blend)	100 mg/ml	1 ml ampule	Russia	Farmadon	[NLM]	
Testenon	Testoviron (testosterone blend)	135 mg/ml	2 ml vial	India	BM Pharmaceuticals		
Testenon	Testoviron (testosterone blend)	135 mg/ml	1 ml ampule	India	BM Pharmaceuticals		
Testenon 250	Sustanon 250 (testosterone blend)	250 mg/ml	5 ml vial	Mexico	Ttokkyo		VET
Testermon	testosterone enanthate	25 mg/ml	n/a	Taiwan	CCPC		
Testex	testosterone propionate	50, 100 mg/ml	n/a	U.S.	Pasadena	[NLM]	
Testex Leo	testosterone propionate	25 mg/ml	1 ml ampule	Spain	Altana Pharma		
Testex Leo	testosterone propionate	25 mg/ml	1 ml ampule	Spain	Leo	[NLM]	
Testex Leo prolongatum	testosterone cypionate	50,125 mg/ml	2 ml ampule	Spain	Altana Pharma		
Testex Leo prolongatum	testosterone cypionate	50,125 mg/ml	2 ml ampule	Spain	Leo	[NLM]	
Testinon-Depot	testosterone enanthate	n/a	n/a	Japan	n/a		
Testo	testosterone propionate	50 mg/ml	10 ml vial	Korea	Samil		
Testo LA	testosterone cypionate	100 mg/ml	10 ml vial	Australia	Jurox	[NLM]	VET
Testo Tab	methyltestosterone	25 mg tablet	n/a	Korea	Samil		
Testoderm	testosterone (patch)	15mgpatch	n/a	Malaysia	Alza		
Testoderm	testosterone (patch)	6 mg patch	10, 30 patch box	Spain	Esteve		
Testoderm	testosterone (patch)	4 mg patch	10 patch box	Spain	Esteve		
Testoenan L/A	testosterone enanthate	250 mg/ml	10 ml vial	Mexico	Loeffler		Vet
Testo-Enant	testosterone enanthate	125 mg/ml	2 ml ampule	Italy	Geymonat		
Testo-Enant	testosterone enanthate	250 mg/ml	1 ml ampule	Italy	Geymonat		
Testogan	testosterone propionate	25 mg/ml	50 ml vial	Costa Rica	Laguinsa		VET
Testogan	testosterone propionate	25 mg/ml	50 ml vial	Dom. Rep.	Laguinsa		VET
Testogan	testosterone propionate	25 mg/ml	50 ml vial	Ecuador	Laguinsa		VET
Testogan	testosterone propionate	25 mg/ml	50 ml vial	El Salvador	Laguinsa		VET
Testogan	testosterone propionate	25 mg/ml	50 ml vial	Guatemala	Laguinsa		VET
Testogan	testosterone propionate	25 mg/ml	50 ml vial	Honduras	Laguinsa		VET
Testogan	testosterone propionate	25 mg/ml	50 ml vial	Nicaragua	Laguinsa		VET
Testogan	testosterone propionate	25 mg/ml	50 ml vial	Panama	Laguinsa		VET
Testogel	testosterone (gel)	25, 50 mg	single dose packet	Australia	Schering		
Testogel	testosterone (gel)	50 mg	single dose packet	Austria	Schering		
Testogel	testosterone (gel)	25, 50 mg	single dose packet	Germany	Jenapharm		
Testogel	testosterone (gel)	25, 50 mg	single dose packet	Netherlands	Besins		
Testogel	testosterone (gel)	25, 50 mg	single dose packet	Sweden	Besins		
Testoject	testosterone cypionate	100 mg/ml	n/a	U.S.	Mayrand	[NLM]	
Testoject 50	testosterone cypionate	50 mg/ml	n/a	U.S.	Mayrand	[NLM]	
Testoject-LA	testosterone cypionate	200 mg/ml	n/a	U.S.	Mayrand	[NLM]	
Testo-Jet L.A.	Sustanon 250 (testosterone blend)	250 mg/ml	10 ml vial	Mexico	Norvet		VET
Testolent	testosterone phenylpropionate	100 mg/ml	1 ml ampule	Rumania	Sicomed	[NLM]	
Testolic	testosterone propionate	50 mg/ml	2 ml ampule	Thailand	Body Research		
Testolin	testosterone suspension	100 mg/ml	10 ml vial	U.S.	Pasadena	[NLM]	
Teston	methyltestosterone	25 mg tablet	30 tablet box	Greece	Remek		
Teston QV 200	testosterone cypionate	200 mg/ml	10 ml vial	Mexico	Quality Vet		VET
Testone-E	testosterone propionate	25 mg/ml	1 ml ampule	Egypt	Misr		
Testonon '250'®	Sustanon 250 (testosterone blend)	250 mg/ml	1 ml ampule	Egypt	Nile		

Testonon'1001®	Sustanon 100 (testosterone blend)	100 mg/ml	1 ml ampule	Egypt	Nile		
Testopin-100	testosterone propionate	100 mg/ml	2 ml vial	India	BM Phanmaceuticals		
Testopin-100	testosterone propionate	100 mg/ml	1 ml ampule	India	BM PharmaceutJcals		
Testoprim-D	Testoviron (testosterone blend)	250 mg/ml	1 ml ampule	Mexico	Labs. Tocogino		
Testopro L/A	testosterone propionate	250 mg/ml	10 ml vial	Mexico	Loeffler		VET
Testopropon	methyltestosterone	25 mg tablet	n/a	Malaysia	Scanpharm		
Testormon	methyltestosterone	10mg tablet	n/a	Portugal	Unitas		
Testorone Depot	testosterone cypionate	100 mg/ml	n/a	Taiwan	Gentle		
Testos 100	testosterone suspension	100 mg/ml	n/a	Canada	Vetcom		VET
Testosteron	methyltestosterone	5 mg tablet	n/a	Germany	Berco	[NLM]	
Testosteron	testosterone propionate	25 mg/ml	1 ml ampule	Rumania	Sicomed	[NLM]	
Testosteron	testosterone propionate	50 mg/ml	1 ml ampule	Bulgaria	Sopharma		
Testosteron	testosterone propionate	5, 10, 25, 50 mg/ml	1 ml ampule	Hungary	Hemofarm	[NLM]	
Testosteron	testosterone propionate	50 mg/ml	1 ml ampule	Switzerland	Streuli & Co. AG	[NLM]	
Testosteron	testosterone propionate	5, 10, 25, 50 mg/ml	1 ml ampule	YugoslaviaFRMR	Galenika	[NLM]	
Testosteron 250	Sustanon 250 (testosterone blend)	250 mg/ml	1 ml ampule	Germany	Rotex Medica	[NLM]	
Testosteron Depot	testosterone enanthate	100 mg/ml	1 ml ampule	Germany	Rotex Medica	[NLM]	
Testosteron Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Germany	Rotex Medica		
Testosteron Depot	testosterone propionate	25 mg/ml	n/a	Taiwan	Gentle		
Testosterona	testosterone propionate	50, 100 mg/ml	10, 20 ml vial	Mexico	Brovel		VET
Testosterona 200	testosterone enanthate	200 mg/ml	10 ml vial	Mexico	Brovel		Vet
testosterona enantato	testosterone enanthate	100 mg/ml	1 ml ampule	Chile	Chile	[NLM]	
testosterona enantato	testosterone enanthate	250 mg/ml	1 ml ampule	Chile	Chile		
Testosterona IV L/A	Sustanon 250 (testosterone blend)	250 mg/ml	10 ml vial	Mexico	Loeffler		VET
Testosterona Propionato	testosterone propionate	n/a	n/a	Paraguay	Botica		
Testosterona Proptonat	testosterone propionate	50, 100 mg/ml	1 ml ampule	Russia	Farmadon		
Testosterona Ultra Lenta	testosterone cypionate	100 mg/ml	20 ml vial	Uruguay	Dispert Labs.		VET
Testosterona Ultra Lenta Fuerte	testosterone cypionate	200 mg/ml	5 ml ampule	Uruguay	Dispert Labs.		VET
Testosterona Ultra Lenta Fuerte	testosterone cypionate	200 mg/ml	20 ml vial	Uruguay	Dispert Labs.		VET
Testosteron-Depo	testosterone enanthate	100 mg/ml	1 ml ampule	YugoslaviaFRMR	Galenika	[NLM]	
Testosteron-Depo	testosterone enanthate	250 mg/ml	1 ml ampule	YugoslaviaFRMR	Galenika		
Testosteron-Depo	testosterone enanthate	100, 250 mg/ml	1 ml ampule	YugoslaviaFRMR	Hemofarm	[NLM]	
Testosteron-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Germany	Eifelfango		
Testosteron-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Bulgaria	Jenapharm		
Testosteron-Depot	testosterone enanthate	250mg/ml	1 ml ampule	Germany	Jenapharm		
Testosterone 200 Depot	testosterone enanthate	200mg/ml	10 ml vial	Mexico	Tomel		vet
Testosterone 250	Sustanon 250 (testosterone blend)	250 mg/ml	10ml vial	Costa Rica	Qualityvet		VET
Testosterone Berco Supp.	testosterone propionate	40 mg/suppository	1 8 supp. box	Germany	Funke	[NLM]	
Testosterone CHP Theramex	testosterone cyclohexylpropionate	296, 148, 37 mg/ml	1 ml ampule	France	Theramex	[NLM]	
testosterone cypionate	testosterone cypionate	100 mg/ml	10 ml vial	U.S.	Geneva Geriatrics	[NLM]	
testosterone cypionate	testosterone cypionate	100, 200 mg/ml	10 ml vial	U.S.	Goldline	[NLM]	
testosterone cypionate	testosterone cypionate	50,100, 200 mg/ml	10 ml vial	U.S.	Huffman	[NLM]	
testosterone cypionate	testosterone cypionate	200 mg/ml	10 ml vial	U.S.	Legere	[NLM]	
testosterone cypionate	testosterone cypionate	100, 200 mg/ml	10 ml vial	U.S.	Schein	[NLM]	
testosterone cypionate	testosterone cypionate	100,200 mg/ml	10ml vial	U.S.	Steris	[NLM]	
Testosterone Cypionate 200	testosterone cypionate	200 mg/ml	10ml vial	Mexico	Ttokkyo		VET
Testosterone Cypionate Inj	testosterone cypionate	200 mg/ml	n/a	Hong Kong	Charmaine		
Testosterone Cypionate Inj	testosterone cypionate	200 mg/ml	n/a	Taiwan	Gwo Chyang		
Testosterone Cypionate Inj	testosterone cypionate	200 mg/ml	n/a	Taiwan	Tai Yu		

Testosterone Cypionate Inj.	testosterone cypionate	100 mg/ml	2 ml vial	Canada	Cytex		
Testosterone Cypionate Inj.	testosterone cypionate	200 mg/ml	10 ml vial	Canada	Sabex		
Testosterone Cypionate LA	testosterone cypionate	100 mg/ml	10ml vial	Mexico	Ttokkyo	[NLM]	VET
Testosterone Depositum	testosterone cypionate	n/a	n/a	Italy	SPA		
testosterone enantato	testosterone enanthate	250 mg/ml	1 ml ampule	Chile	Biosano		
testosterone enanthate	testosterone enanthate	100,200mg/ml	10 ml vial	U.S.	Geneva Geriatrics	[NLM]	
testosterone enanthate	testosterone enanthate	100,200 mg/ml	10 ml vial	U.S.	Goldlline	[NLM]	
testosterone enanthate	testosterone enanthate	100,200mg/ml	10 ml vial	U.S.	Quad	[NLM]	
testosterone enanthate	testosterone enanthate	100,200 mg/ml	10 ml vial	U.S.	Schein	[NLM]	
testosterone enanthate	testosterone enanthate	100,200 mg/ml	10 ml vial	U.S.	Steris	[NLM]	
Testosterone Enanthate 250	testosterone enanthate	250 mg/ml	1 ml ampule	Iran	Aburaihan		
Testosterone Enanthate Dalim	testosterone enanthate	250 mg/ml	n/a	Korea	Dalim		
Testosterone Enanthate Inj	testosterone enanthate	200 mg/ml	10 ml vial	Canada	Taro	[NLM]	
Testosterone Heptytate	testosterone enanthate	50,100,250 mg/ml	1 ml ampule	France	Theramex		
Testosterone Jenaphamn	testosterone propionate	25 mg/ml	1 ml ampule	Germany	Jenapharm	[NLM]	
testosterone propionate	testosterone propionate	50 mg/ml	n/a	U.S.	Quad & Lilly	[NLM]	
testosterone propionate	testosterone propionate	100 mg/ml	10, 30 ml vial	U.S.	Rugby	[NLM]	
testosterone propionate	testosterone propionate	100mg/ml	10ml vial	U.S.	Steris	[NLM]	
Testosterone Propionate Inj	testosterone propionate	50 mg/ml	1 ml ampule	China	n/a		
Testosterone Propionate Inj	testosterone propionate	25 mg/ml	n/a	Hong Kong	Charmaine		
Testosterone Propionate Inj	testosterone propionate	50 mg/ml	n/a	Hong Kong	Hong Kong Med		
Testosterone Propionate Inj	testosterone propionate	25 mg/ml	n/a	Taiwan	Tai Yu		
Testosterone Propionate Inj.	testosterone propionate	100 mg/ml	1 0 ml vial	Canada	Cytex		
Testosterone Propionate Inj.	testosterone propionate	100 mg/ml	10 ml vial	Canada	Dominion		VET
Testosterone Propionate Inj.	testosterone propionate	100 mg/ml	10 ml vial	Canada	Taro	[NLM]	
Testosterone Streuli	testosterone propionate	n/a	5, 10, 25, 50 mg/ml	Austria	Streuli & Co. AG	[NLM]	
testosterone suspension	testosterone suspension	50, 100 mg/ml	10, 30ml vial	U.S.	Legere	[NLM]	
testosterone suspension	testosterone suspension			U.S.	Schein	[NLM]	
testosterone suspension	testosterone suspension	50, 100 mg/ml	10, 30ml vial	U.S.	Steris	[NLM]	
Testosterone Vitis	testosterone propionate	n/a	10, 25 mg/ml	Germany	Neopharma	[NLM]	
Testosterone-Prop. Disp.	testosterone propionate	10, 25 mg/ml	1 ml ampule	Austria	Disperga	[NLM]	
testosteronpropionat	testosterone propionate	50 mg/ml	1 ml ampule	Germany	Eifelfango	[NLM]	
testosteronpropionat	testosterone propionate	25 mg/ml	1 ml ampule	Germany	Eifelfango		
Testosteronum Prolongatum	testosterone enanthate	100 mg/ml	1 ml ampule	Belgium	Polfa	[NLM]	
Testosteronum Prolongatum	testosterone enanthate	100 mg/ml	1 ml ampule	Bulgaria	Jetfa	[NLM]	
Testosteronum Prolongatum	testosterone enanthate	100 mg/ml	1 ml ampule	Poland	Jelfa		
Testosteronum Prolongatum	testosterone enanthate	100 mg/ml	1 ml ampule	Poland	Polfa	[NLM]	
Testosteronum Propionicum	testosterone propionate	50 mg/ml	1 ml ampule	Poland	Jelfa		
Testosure	methyltestosterone	n/a	n/a	Hong Kong	Europharm		
Testosus 100	testosterone suspension	100 mg/ml	20 ml vial	Australia	Jurox	[NLM]	VET
Testoviron Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Taiwan	Schering		
Testoviron®	testosterone propionate	10,25, 50 mg/ml	1 ml ampule	Greece	Sobering		
Testoviron®	testosterone propionate	10, 25 mg/ml	1 ml ampule	Italy	Schering	[NLM]	
Testoviron®	testosterone propionate	50 mg/ml	2 ml ampule	Spain	Schering	[NLM]	
Testoviron® Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Argentina	Schering		
Testoviron® Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Hungary	Schering	[NLM]	
Testoviron® Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Ireland	Schering	[NLM]	
Testoviron® Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Peru	Schering		
Testoviron® Depot	Testoviron (testosterone blend)	135 mg/ml	1 ml ampule	Argentina	Schering	[NLM]	

Testoviron® Depot	Testoviron (testosterone blend)	135 mg/ml	1 ml ampule	Hungary	Schering	[NLM]	
Testoviron® Depot 100	Testoviron (testosterone blend)	135 mg/ml	1 ml ampule	Austria	Schering	[NLM]	
Testoviron® Depot 100	Testoviron (testosterone blend)	135 mg/ml	1 ml ampule	Dom. Rep.	Schering		
Testoviron® Depot 100	Testoviron (testosterone blend)	135 mg/ml	1 ml ampule	Germany	Schering	[NLM]	
Testoviron® Depot 100	Testoviron (testosterone blend)	135 mg/ml	1 ml ampule	Greece	Schering	[NLM]	
Testoviron® Depot 100	Testoviron (testosterone blend)	135 mg/ml	1 ml ampule	Italy	Schering		
Testoviron® Depot 100	Testoviron (testosterone blend)	135 mg/ml	1 ml ampule	Netherlands	Schering	[NLM]	
Testoviron® Depot 100	Testoviron (testosterone blend)	135 mg/ml	1 ml ampule	Portugal	Schering	[NLM]	
Testoviron® Depot 100	Testoviron (testosterone blend)	135 mg/ml	1 ml ampule	Spain	Schering	[NLM]	
Testoviron® Depot 100	Testoviron (testosterone blend)	135 mg/ml	1 ml ampule	Switzerland	Schering	[NLM]	
Testoviron® Depot 135	Testoviron (testosterone blend)	135 mg/ml	1 ml ampule	Denmark	Schering		
Testoviron® Depot 135	Testoviron (testosterone blend)	135 mg/ml	1 ml ampule	Sweden	Schering	[NLM]	
Testoviron® Depot 50	Testoviron (testosterone blend)	75 mg/ml	1 ml ampule	Austria	Schering	[NLM]	
Testoviron® Depot 50	Testoviron (testosterone blend)	75 mg/ml	1 ml ampule	Germany	Schering	[NLM]	
Testoviron® Depot 50	Testoviron (testosterone blend)	75 mg/ml	1 ml ampule	Italy	Sobering	[NLM]	
Testoviron® Depot 50	Testoviron (testosterone Wend)	75 mg/ml	1 ml ampule	Spain	Schering	[NLM]	
Testoviron®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Hong Kong	Schering		
Testoviron®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Iceland	Schering		
Testoviron®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Thailand	Schering		
Testoviron®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Yemen	Schering		
Testoviron®-Depot	testosterone enanthate	250 mg/ml	1 mi ampule	Austria	Schering		
Testoviron®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Bahrain	Schering	[NLM]	
Testoviron®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Colombia	Schering		
Testoviron®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Czech. Rep.	Schering	[NLM]	
Testoviron®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Denmark	Schering		
Testoviron®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Dom. Rep.	Schering		
Testoviron®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Ethiopia	Schering		
Testoviron®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Germany	Schering		
Testoviron®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Greece	Schering		
Testoviron®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	India	Schering		
Testoviron®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Israel	Schering		
Testoviron®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Italy	Schering		
Testoviron®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Japan	Schering		
Testoviron®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Lebanon	Schering	[NLM]	
Testoviron®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Malaysia	Schering		
Testoviron®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Malta	Schering		
Testoviron®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Pakistan	Schering		
Testoviron®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Paraguay	Schering		
Testoviron®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Portugal	Schering		
Testoviron®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Saudi Arabia	Schering		
Testoviron®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Spain	Schering		
Testoviron®-Depot	testosterone enanthate	250 mg/m!	1 ml ampule	Sri Lanka	Schering		
Testoviron®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Sweden	Schering		
Testoviron®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Switzerland	Schering		
Testoviron®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Uruguay	Schering		
Testovis	methyltestosterone	10mg tablet	n/a	Italy	SIT		
Testovis	testosterone propionate	20 mg/ml	n/a	Italy	SIT		
Testovjron®-Depot	testosterone enanthate	250 mg/ml	1 ml ampule	Qatar	Schering	[NLM]	
Testoyohim	methyltestosterone	25 mg dragee	30 dragee box	Germany	Paul Mehner	[NLM]	

Testred	methyltestosterone	10mg capsule	100 capsule bottle	U.S.	ICN		
Testred Cypionate	testosterone cypionate	200 mg/ml	10 ml vial	U.S.	INC	[NLM]	
Testrin-PA	testosterone enanthate	200 mg/ml	n/a	U.S.	Pasadena Res.	[NLM]	
Testron 4 250	Sustanon 250 (testosterone blend)	250 mg/ml	10 ml via!	Mexico	Bratis Labs		VET
Testron Depot	testosterone enanthate	125,250 mg/ml	1 ml vial	Japan	n/a		
Ton Lin	fluoxymesterone	10mg capsule	n/a	Taiwan	Chin Teng		
TP Men Hormone	methyltestosterone	10mg capsule	24 tablets	Thailand	TP Drugs		
Trembolone QV 75	trenbolone acetate	75 mg/ml	10 ml vial	Mexico	Quality Vet		VET
Trenabol	trenbolone acetate	75 mg/ml	10 ml vial	Thailand	British Dragon		
Trenabol 200	Trenbolone acetate	200 mg/ml	10 ml vial	Thailand	British Dragon		
Trenbol 75	trenbolone acetate	75 mg/ml	20 ml vial	Mexico	Ttokkyo		VET
Trend 50	trenbolone acetate	50 mg/ml	6 ml vial	Myanmar/Burma	WDV		VET
Tribolin	methylandrostenediol (blend)	75 mg/ml	10, 20 ml vial	Australia	Ranvet		VET
Trinergic	methandrostenolone	5 mg capsule	n/a	India	Unimed	[NLM]	
Triolandren	testosterone blend (misc)	250 mg/ml	1 ml ampule	Egypt	Novartis		
Triolandren	testosterone blend (misc)	250 mg/ml	1 ml ampule	Taiwan	Novartis		
Triolandren	testosterone propionate	100 mg/ml	10 ml vial	Switzerland	Ciba Geigy CH	[NLM]	
Tri-Trenabol 150	Trenbolone Blend	150mg/ml	10 ml vial	Thailand	British Dragon		
Trofbdermin Crema	clostebol acetate	cream	30 gram tube	Italy	Carlo Erba OTC		
Trofbdermin Spray	clostebol acetate	n/a	30 ml spray	Italy	Carto Erba OTC		
Turinabol	nandrolone phenylpropionate	25 mg/ml	n/a	Bulgaria	Jenapharm	[NLM]	
Turinabol	nandrolone phenylpropionate	25 mg/ml	n/a	Czech. Rep.	Germed	[NLM]	
Turinabol	nandrolone phenylpropionate	25 mg/ml	n/a	Germany	Jenapharm	[NLM]	
Turinabol Depot	nandrolone decanoate	50 mg/ml	1 ml ampule	Bulgaria	Jenapharm	[NLM]	
Turinabol Depot	nandrolone decanoate	50 mg/ml	1 ml ampule	Czech. Rep.	Jenapharm	[NLM]	
Turinabol Depot	nandrolone decanoate	50 ma/ ml	1 ml ampule	Germany	Jenapharm	[NLM]	
Ultandren	fluoxymesterone	1,5 mg tablet	n/a	United Kingdom	Ciba	[NLM]	
Ultragan	boldenone undecylenate	100 mg/ml	10 ml vial	Mexico	Denkall		VET
Undestor	testosterone undecanoate	40 mg capsules	n/a	Argentina	Organon		
Undestor	testosterone undecanoate	40 mg capsules	60 capsule bottle	Belgium	Organon		
Undestor	testosterone undecanoate	40 mg capsules	60 capsule bottle	Bulgaria	Organon		
Undestor	testosterone undecanoate	40 mg capsules	60 capsule bottle	Czech. Rep.	Organon		
Undestor	testosterone undecanoate	40 mg capsules	n/a	Luxemburg	Organon		
Undestor	testosterone undecanoate	40 mg capsules	60 capsule bottle	Poland	Organon		
Undestor	testosterone undecanoate	40 mg capsules	60 capsule bottle	Rumania	Organon		
Undestor	testosterone undecanoate	40 mg capsules	n/a	Slovakia	Organon		
Undestor	testosterone undecanoate	40 mg capsules	n/a	Sweden	Organon		
Uni-Test Inj	testosterone propionate	50, 100 mg/ml	1 ml ampule	Canada	Univet		VET
Uni-Test Suspension	testosterone suspension	100 mg/ml	30 ml vial	Canada	Univet		VET
Uttragan	boldenone undecylenate	50 mg/ml	50 ml vial	Mexico	Denkall		VET
Vasorome	oxandrolone	0.5 mg tablet	n/a	Japan	Kowa	[NLM]	
Vasorome	oxandrolone	2 mg tablet	n/a	Japan	Kowa	[NLM]	
Vebonol	boldenone undecylenate	25 mg/ml	10 ml vial	Australia	Ciba-Geigy	[NLM]	VET
Vebonol	boldenone undecylenate	25 mg/ml	10 ml vial	Germany	Ciba-Geigy		VET
Vebonol	boldenone undecylenate	25 mg/ml	10 ml vial	Switzerland	Ciba-Geigy	[NLM]	VET
Veto-Test Sus	testosterone suspension	100 mg/ml	30 ml vial	Canada	Austin		VET
Vewon	fluoxymesterone	5 mg tablet	n/a	Taiwan	Yung Shin		
Vi Jane	fluoxymesterone	10mg capsule	n/a	Taiwan	Shyh Sar		
Virbac Tepro Pellets	testosterone propionate (implant)	100 mg/ml	20 ml vial	Australia	Virbac		VET

Virigen	testosterone undecanoate	40 mg capsules	30 capsule bottle	Turkey	Organon		
Virilon (time released)	methyltestosterone	10 mg capsule	100,1000 capsule bottle	U.S.	Star		
Vironate	testosterone cypionate	200 mg/ml	5 ml vial	Philippines	Xelox (export)		
Virormone	testosterone propionate	50 mg/ml	2 ml ampule	Thailand	Paines		
Virormone	testosterone propionate	50 mg/ml	2 ml ampule	United Kingdom	Ferring	[NLM]	
Virormone	testosterone propionate	50 mg/ml	10 ml vial	United Kingdom	Nordic		
Vistimon	mesterolone	25 mg tablet	20 tablet box	Germany	Jenapharm	[NLM]	
Vistimon	mesterolone	25 mg tablet	n/a	Korea	n/a		
Vistimon	mesterolone	25 mg tablet	30 tablet box	Taiwan	Jenapharm		
Vitabolic	stanozolol (inj)	20 mg/ml	10. 100 ml vial	Argentina	Over Labs		VET
VR Testprop	testosterone propionate	22 mg/pellet	n/a	Australia	Jurox		VET
Waromom	fluoxymesterone	5 mg tablet	n/a	Taiwan	Washington		
Weratestone 250	testosterone enanthate	250 mg/ml	1 ml ampule	Algeria	Weimer Pharma		
Weratestone 250	testosterone enanthate	250 mg/ml	1 ml ampule	Mozambique	Weimer Pharma		
Weratestone 250	testosterone enanthate	250 mg/ml	1 ml ampule	Zimbabwe	Weimer Pharma		
Weratestone 250	testosterone enanthate	250 mg/ml	1 ml ampule	Zimbabwe	Weimer Pharma		
Winstrol	stanozolol (oral)	2 mg tablet	n/a	Japan	n/a		
Winstrol®	stanozolol (oral)	2 mg tablet	20 tablet box	Italy	Zambon	[NLM]	
Winstrol®	stanozolol (oral)	2 mg tablet	20 tablet box	Spain	Zambon		
Winstrol®	stanozolol (oral)	2 mg tablet	100 tablet bottle	U.S.	Sanofi		
Winstrol®	stanozolol (oral)	2 mg tablet	100 tablet bottle	U.S.	Upjohn	[NLM]	
Winstrol®	stanozolol (oral)	2 mg tablet	100 tablet bottle	U.S.	Winthrop	[NLM]	
Winstrol®	stanozolol (oral)	2 mg tablet	n/a	Greece	Winthrop	[NLM]	
Winstrol®	stanozolol (oral)	2 mg tablet	n/a	Portugal	Winthrop	[NLM]	
Winstrol®	stanozolol (inj)	50 mg/ml	n/a	Greece	Winthrop	[NLM]	
Winstrol® Depot	stanozolol (inj)	50 mg/ml	1 ml vial	Italy	Zambon	[NLM]	
Winstrol® Depot	stanozolol (inj)	50 mg/ml	1 ml ampule	Spain	Zambon		
Winstrol® V	stanozolol (inj)	50 mg/ml	10, 30ml vial	Canada	Pharmacia		VET
Winstrol® V	stanozolol (inj)	50 mg/ml	10, 30ml vial	U.S.	Pharmacia & Upjohn		VET
Winstrol® V	stanozolol (inj)	50 mg/ml	10, 30ml vial	U.S.	Winthrop	[NLM]	VET
Winstrol-V®	stanozolol (oral)	2 mg tablet	100 tablet bottle	Canada	Pharmacia		VET
Winstrol-V®	stanozolol (oral)	2 mg chewable tab	100 tablet bottle	U.S.	Pharmacia & Upjohn		VET
Wmstrol-V®	stanozolol (oral)	2 mg tablet	100 tablet bottle	U.S.	Pharmacia & Upjohn		VET
Ziremilon	nandrolone decanoate	50 mg/ml	1 ml ampule	Greece	Demo		

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-Steroid Profiles
-Steroid Side Effects
-Multiple Steroid Stacks
-How To Remove Steroids
-Buying Steroids
-Steroid Cycle Examples
-Injection Techniques
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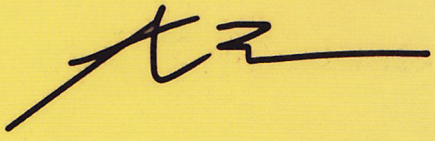

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