

STEROIDS

THE BASICS YOU *NEED TO KNOW*

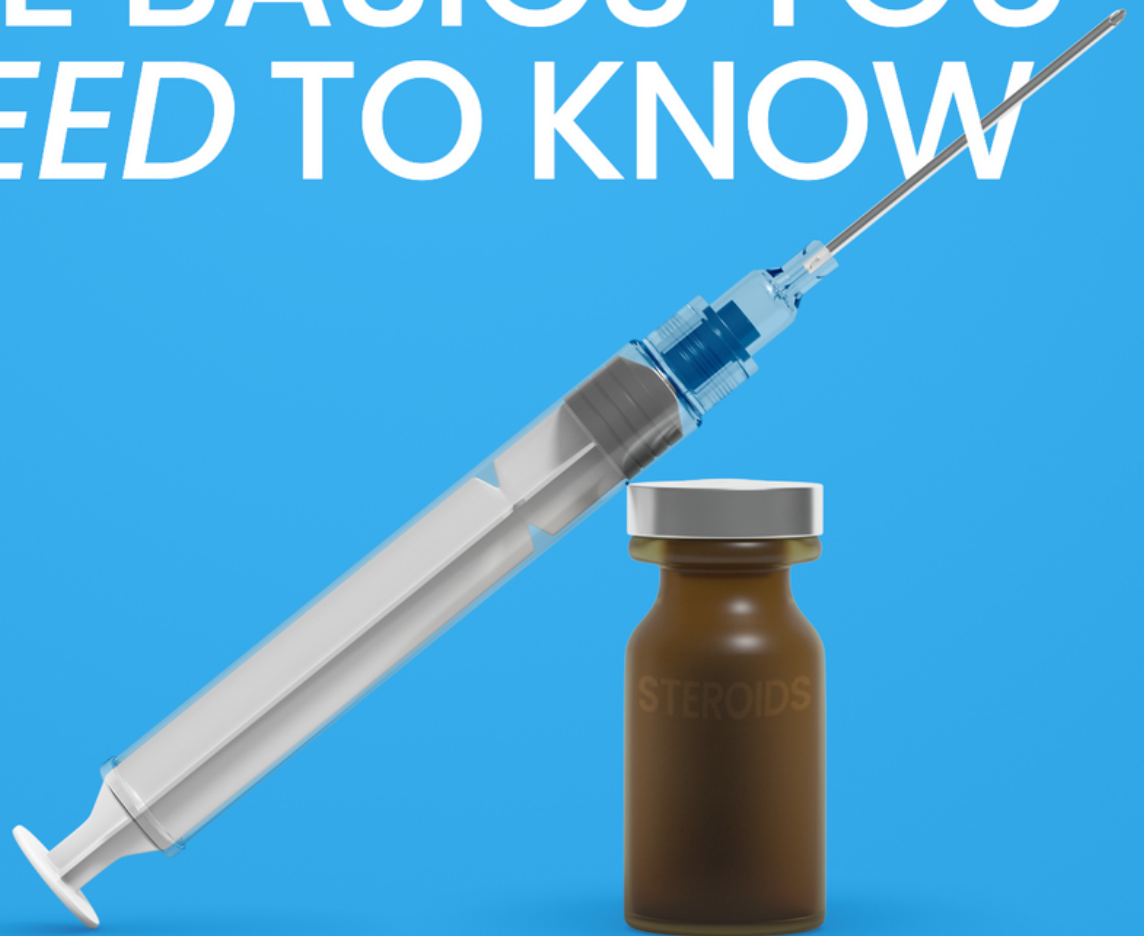


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INTRODUCTION

Steroids. The name conjures images of immensely jacked men and women, spray-tanned skin, and just red flags all over. While it is true that Steroids can have hosts of side effects, the reality is, as long as you aren't a total jackass, most people could probably tolerate them quite well.

Steroids can be defined as Synthetic Versions of the male sex hormone Testosterone and its derivatives

Testosterone was first synthesized in the 1930s but only found its way into sports in the 1950s [1]. While these substances were originally developed to treat certain illnesses, such as HIV/AIDS, they have found their way into sports with a lot of ease. Today, only certain Anabolic Steroids are actually still used within medicine, such as Anavar being used to treat muscle wastage [2].

Today Steroids are not only used to increase muscle size but they are also used to increase the performance of athletes that compete in competitions, like CrossFitters. Contrary to popular belief, few, if any actual Anabolic Steroids can cause direct Beta Oxidation (Fat Loss).

The purpose of this book is to teach you the science behind these substances, why you might want to avoid certain ones and to teach you the absolute basics. Do you think you're ready for Steroids? Well - you might want to think about your life far ahead from now.

We know Steroids can have effects on your fertility, and certain Steroids will have an impact on your mental health. Overall, before you even consider taking Steroids, you should have done the following:

- Trained and dieted **consistently** for 12+ months minimum. If you cannot go out with friends and say no to drinks or if you miss out on sleep consistently, you are not ready for Steroids
- You have checked your health - particularly blood pressure, blood lipids, kidney and liver function, and hormonal levels. If these are not in check, sort them out first because it's only going downhill from here
- Make sure you are financially and emotionally stable. Steroids will take a toll on both, and if you aren't prepared, you will suffer

Overall, you have to be an adult to use these things. These aren't toys and can lead to horrific sides if used incorrectly.



WHAT ARE STEROIDS

As mentioned before, Steroids can be defined as certain synthetic hormones. The story of Steroids really begins in the 1950s, when Dr. John Ziegler developed a Steroid called Metandienone or Dianabol after he ran some trials on select men with pure Testosterone injections.

The results were not favorable, and as any good scientist, he developed something new, something better. He tinkered with Testosterone and developed Metandienone.

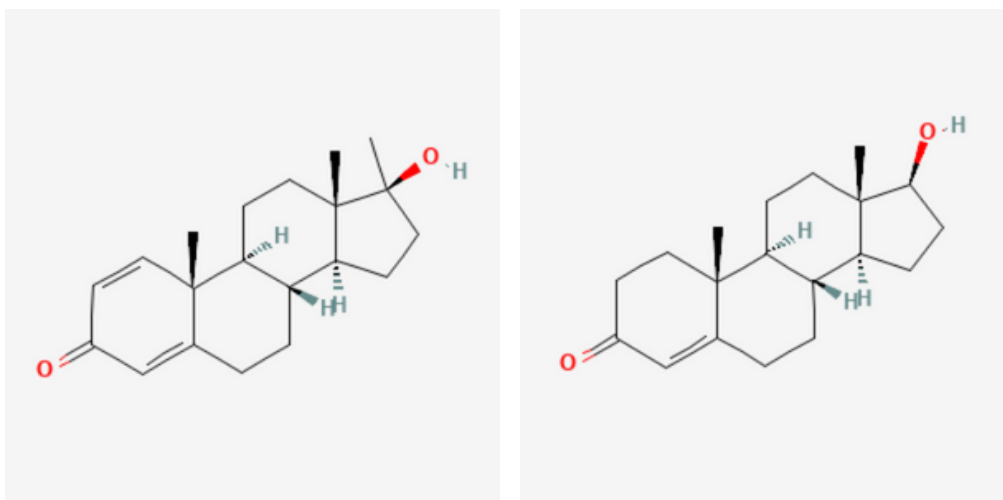


Figure 1 & 2: Metandienone ([left](#)) vs Testosterone ([right](#)). The main differences are the double bond between C1 and C2 of the A cyclohexane ring and the 17 Alpha Alkylation.

This is essentially what Steroids are. We identify problems in the medical world that need solving, and you develop a drug (Testosterone). You see shortcomings and problems in this drug, alter it, and develop a new, better version.

There are currently hundreds of these hormones being used around the world, and very few are actually made by medical professionals. Most are made in-home laboratories by black market dealers and sold with the sole purpose of improving bodily performance.

These hormones will enter the body via a certain pathway such as an intramuscular injection, and then, the magic begins.

HOW STEROIDS WORK

The easiest way to describe the mechanism in which Steroids work is simply by saying they bind to Androgen receptors throughout the body. In certain tissue-like muscles, these hormones will regulate the transcription of target genes that control the accumulation of DNA in skeletal muscle tissue that is needed for actual muscle growth [3].

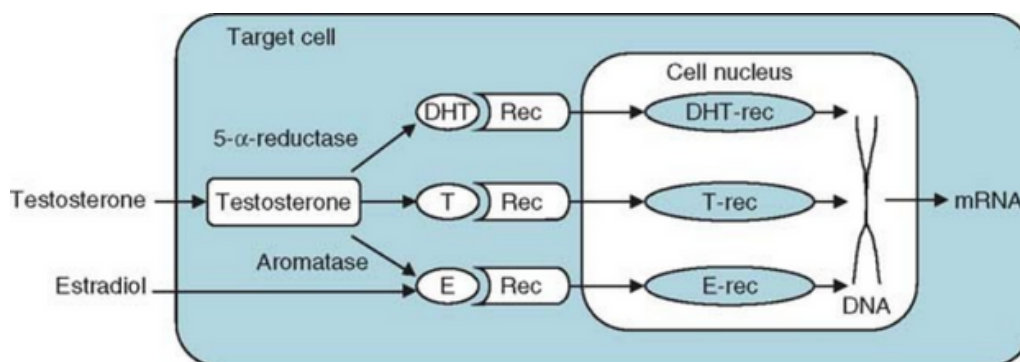


Figure 3: [Different hormones](#) binding to their respective receptors and causing particular biological changes

Figure 3 shows that there are actually various hormones that will bind to their respective receptors and cause a change in the body. Depending on which Androgens you take, the effects will be more noticeable, and so will the side effects.

Interestingly enough, a lot of people will say that Androgen receptors will begin to downregulate and 'you'll become accustomed to a drug'. This isn't really true, as we see in the medical field that people get treated for a condition for years on end with exactly the same drug and dosage.

So, why exactly do people escalate the amount of Steroids they use or need? Well, they simply need more because there's more of them. I'll be honest, I first came across this idea when listening to Broderick Chavez, and it makes complete sense.

When it comes to Steroids, it is always best to use as much as necessary, but as little as possible. Now that we know the basics of how these Steroids work, let's see how they look.



STEROID FAMILY TREE

Steroids can actually be split into certain groups or 'branches' based on an overarching similarity they have. Currently, there are three main groups:

- Testosterone and Testosterone Derivatives
- Dihydrogen testosterone and Dihydrogen testosterone derivatives
- Nandrolones

These are the main groups, and all Steroids fall within these. They have specific characteristics, and even the individual Steroids within have specific characteristics that can be used, and some will abuse you.

Before we run down the list of Steroids, remember that even though we 100% expect certain Steroids to have certain effects on the body, sometimes that just isn't the case based on Genetics or other factors.

Testosterone and Testosterone Derivatives

These are the most basic of Steroids, and the ones most people end up using at the beginning of their PED journeys. These should usually make up the base of your cycle, as these are simply important for "feeling male".



1. TESTOSTERONE

The base male sex hormone and the one most people are rather familiar with. There is nothing terribly exciting or bad about Testosterone, it is just a powerful Androgen in the body. When more is introduced into the body you will definitely be feeling and seeing the effects.

The exercise vs non-exercise study published in 1996 [4] does show that even without training, you can see a decent increase in lean muscle mass with only using Testosterone. That being said, most people will usually practice polypharma, and use another Androgen on top of Testosterone.

Some of the Testosterone will convert into Estrogen and Dihydrotestosterone via Aromatase and 5 Alpha Reductase respectively.

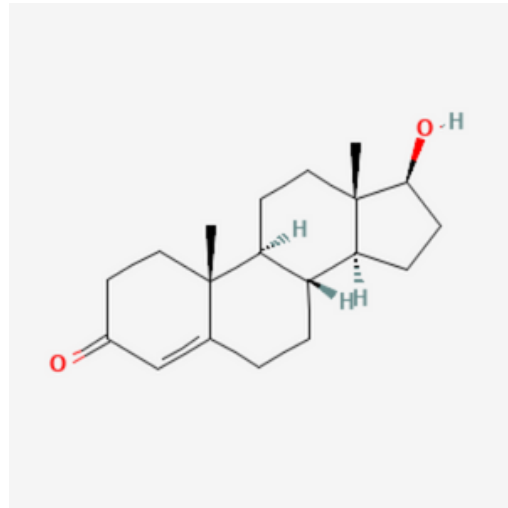


Figure 4: **Testosterone**

Quality	Testosterone
Anabolic: Androgenic Rating	100: 100
Estrogenic	Yes
Injectable or Oral	Injectable
Half-Life	Propionate: Enanthate: Cypionate:
Hair Loss	Yes



Is Testosterone Androgenic?

Yes, Testosterone has an Androgenic rating of 100 and will cause Androgenic Side effects

Can it cause Gyno?

Yes, Testosterone can cause Gyno through Estrogen conversion, and using either a SERM or an AI could stop this from happening

For bulking or cutting?

Both, you would ideally use Testosterone as the base for all your cycles (or another Steroid in the Testosterone branch)

Overall, it will build lean muscle mass and can help you retain muscle mass via increased muscle protein synthesis and nitrogen efficiency. Some will call it a lackluster Steroid, but the reality is you can get some excellent results from only a little bit of extra Testosterone.

Side Effect	Testosterone
Estrogenic Side Effects (Gyno, Fat gain, etc)	Yes
Androgenic Side Effects (Prostate Growth, Acne, etc)	Yes
Hair Loss	Yes
Cholesterol	Yes
High Blood Pressure	Yes, slightly
Aggression	Very rare
Testicular Shutdown	Yes
Prolactin	Unlikely
Liver Toxic	Unlikely
Kidney Toxic	Yes
Neurotoxic	Unlikely



2. BOLDENONE (EQUIPOISE)

Now we're talking about something a bit more interesting. Boldenone, Equipoise, or even as injectable Dianabol.

It was developed to actually be a longer acting version of Dianabol, and with fewer Androgenic side effects.

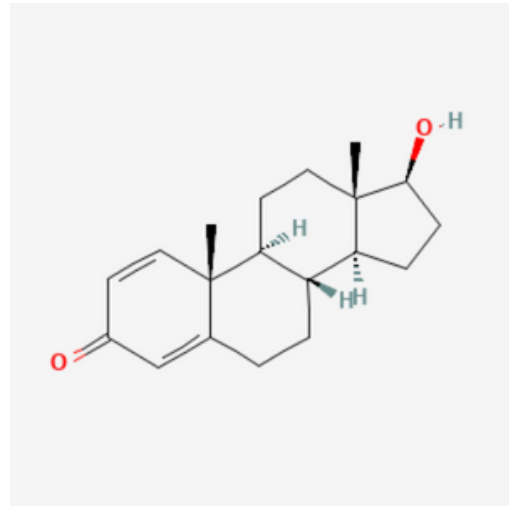


Figure 5: [Boldenone](#)

Boldenone is interesting in its mechanism to increase Red Blood Cell Count and Hematocrit levels. This will massively drive up the body's ability to carry oxygen, meaning it is a pretty good option for people who do a ton of volume when training. A pretty big negative about that is the fact that it will drive up blood pressure quite significantly if left unchecked.

Boldenone is wrongfully compared to Deca Durabolin often when in reality it is way more similar to Testosterone. It is just as Anabolic as Testosterone while being both less Estrogenic and Androgenic. This means you can use twice the amount of Boldenone as Testosterone, and see double the amount of Anabolism, while seeing the exact same (or close to it) amount of Estrogen and Androgenic sides.

Quality	Boldenone
Anabolic: Androgenic Rating	100: 50
Estrogenic	Yes, but less than Testosterone
Injectable or Oral	Injectable
Half-Life	14 Days
Hair Loss	Yes, but less than Testosterone



Do I need to use Testosterone with it?

No, not at all. They will do exactly the same things, just to different extents

Will it cause Hair Loss?

Far less than Testosterone, as it converts to DHB and not DHT

Do I really need to run it for that long before it works?

According to almost everyone who has used it in the past, it seems like yes

EQ is a very popular compound to use in the off-season when you're trying to pack on lean muscle mass. It can be used in a cutting phase, but you might not want to stack it with certain other cutting drugs as the overlapping sides could lead to some serious damage.

Side Effect	Boldenone
Estrogenic Side Effects (Gyno, Fat gain, etc)	Yes, slightly
Androgenic Side Effects (Prostate Growth, Acne, etc)	Yes, slightly
Hair Loss	Yes, slightly
Cholesterol	Yes
High Blood Pressure	Yes, aggressively
Aggression	Very rare
Testicular Shutdown	Yes
Prolactin	Unlikely
Liver Toxic	Yes
Kidney Toxic	Yes, very
Neurotoxic	Unlikely

EQ is remarkably similar to Testosterone, and both are not needed in a cycle. You can even look to use EQ as HRT since it would result in the same effects as Testosterone, with slightly more Anabolism (when Estrogen is matched). Personally, I think EQ is a good compound if you are someone who is performance-based or trains with high volume.



3. METANDIENONE (DIANABOL)

As mentioned in the Boldenone section, this is essentially oral Boldenone. When you look at Dianabol vs Boldenone, the only difference is the addition of a Hydroxide at the 17 Alpha Position.

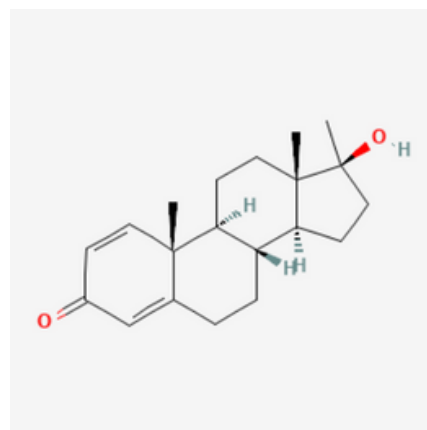


Figure 6: [Metandienone](#)

This is what makes Dianabol (and all other Oral Steroids) orally available.

Much like the rest in this category, the effects will be similar to that of Testosterone, but slightly different. Obviously, the 17 alpha Alkylation means that you now have an orally available drug, whilst the double bond at the C1 and C2 will result in less Androgenicity.

Dianabol is going to seem more of a 'wet' compound based on Internet Forums, but remember, Arnold didn't use Testosterone. He used Dianabol as his Test base, and he was very lean.

Using Dianabol with a shitty diet and a lackluster training protocol can only result in bad results. While there are various better compounds, Dianabol is still a drug used by many to result in lean muscle gains. Do keep in mind that all Oral Steroids will impact hunger due to the first pass.

Quality	Dianabol
Anabolic: Androgenic Rating	90 - 210: 40 - 60
Estrogenic	Yes, but less than Testosterone
Injectable or Oral	Oral
Half-Life	8 Hours
Hair Loss	Yes, but less than Testosterone



Should I take it before training?

Orals have a tendency to crash hunger levels, and you don't want to be hungry while training so it could be beneficial yes

Will it bloat me?

If you live like a child, yes. All orals are known to make you full and are remarkably good at cell hydration [5], so expect some fullness. If you're bloated, you're too fat or your diet sucks

Should I split my dosing?

With a half-life of only 8 hours, ideally, yes

Again, there are various compounds that are way better than Dianabol but it is a viable option if you for some reason cannot inject Testosterone. It is also good for a beginner Steroid, and you can take it alone since it does convert into Estrogen.

Side Effect	Dianabol
Estrogenic Side Effects (Gyno, Fat gain, etc)	Yes, slightly
Androgenic Side Effects (Prostate Growth, Acne, etc)	Yes, slightly
Hair Loss	Yes, slightly
Cholesterol	Yes
High Blood Pressure	Yes
Aggression	Very rare
Testicular Shutdown	Yes
Prolactin	Unlikely
Liver Toxic	Yes
Kidney Toxic	Yes
Neurotoxic	Unlikely

4. 4- CHLORODEHYDROMETHYLTESTOSTERONE (TURINABOL)

Turinabol (TBol) has been around for a long time and is actually a modified Dianabol.

It first came onto the scene in the 1960s and was utilized extensively by East Germany in the 70s and 80s to dominate at the Olympics. It was also favored by medical professionals, as the side effects were relatively low.

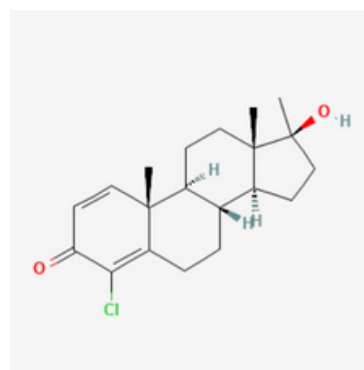


Figure 7: [4-Chlorodehydromethyltestosterone](#)

Compared to Dianabol it isn't quite as Anabolic, but it is remarkably low on Androgenicity, and also due to the Chloro substitution at the 4th Carbon position, TBol cannot convert into Estrogen at all. This would make TBol quite mild, as the side effects are low and it won't be as Anabolic as other substances that do convert to Estrogen. This means you'll see a lean increase in mass, with no bloat, and no risk of Gyno.

Due to this interesting chemical property, many have compared TBol to Winstrol - but in reality, they are a bit different. TBol is still a Testosterone Derivative meaning you expect those kinds of results, not the DHT kind.

Quality	Turinabol
Anabolic: Androgenic Rating	54: 6
Estrogenic	No
Injectable or Oral	Oral
Half-Life	16 Hours
Hair Loss	Yes, but less than Testosterone



What's the difference between DBol and TBoI?

Dianabol will convert into Estrogen and is also stronger

Why do athletes use Turinabol?

Because there are very few side effects, and it is reasonably good for strength

Cutting or Bulking?

Either, it doesn't have specific effects that benefit either 'more'

Overall this is a drug that you use when you might be a bit older, or more concerned with health, but still want to build lean mass. You can also utilize this as a strength drug, as some individuals have said strength is good on TBoI, although, research shows DHTs would be better.

Side Effect	Turinabol
Estrogenic Side Effects (Gyno, Fat gain, etc)	None
Androgenic Side Effects (Prostate Growth, Acne, etc)	Yes, slightly
Hair Loss	Yes, slightly
Cholesterol	Yes
High Blood Pressure	Yes, slightly
Aggression	Very rare
Testicular Shutdown	Yes
Prolactin	Unlikely
Liver Toxic	Yes
Kidney Toxic	Yes
Neurotoxic	Unlikely

5. FLUOXYMESTERONE (HALOTESTIN)

Halotestin or Halo for short is certainly one of those Steroids most people don't know about, and even those that do avoid it.

Except for strength athletes. So, for those of you planning on totaling more than 2000 pounds, allow me to introduce, Halo.

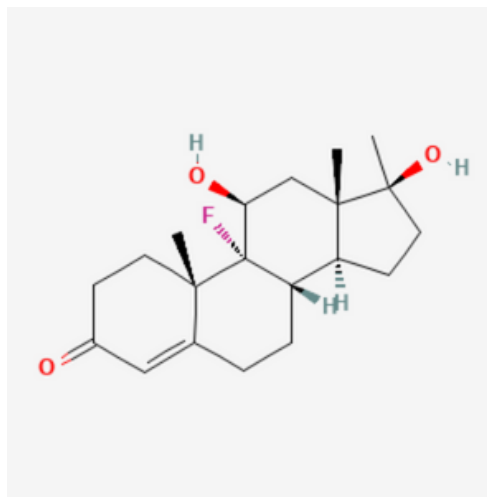


Figure 8: [Fluoxymesterone](#)

The first thing you need to know is that Halo is unbelievably strong. In fact, it is 5 times more Anabolic and Androgenic than Methyltestosterone. Methyltestosterone is already stronger than normal Testosterone, so, Halo could be the drug to get you to the Olympia - now.

But it won't. In fact, as far as Anabolism goes, it's shit. While the Anabolic rating is extremely high, it doesn't translate to actual Anabolism in the human body. Add the fact that it cannot convert into Estrogen, and it has no place in your stack as an Anabolic Driver.

That being said, this compound is so Androgenic, that it is used as a means to increase Aggression. It can perhaps also drive textural changes in the final week of contest prep, but this is mostly going to be used for aggression.

Quality	Halotestin
Anabolic: Androgenic Rating	1900: 850
Estrogenic	No
Injectable or Oral	Oral
Half-Life	9.2 Hours
Hair Loss	Yes, but less than Testosterone



What is Halotestin used for in bodybuilding?

To drive anger, and perhaps make you look grainer granted you are already lean

Does Halotestin increase appetite?

All Oral Steroids will decrease appetite

Is it really that strong?

Well, the usual piece of advice is, "if you aren't 100% okay mentally, don't use it"

Overall, the uses for Halo are far less than other drugs in this group. It can help you produce some serious sets in the latter end of a Prep, or help you move serious weight as a Strength Athlete - that's it.

Side Effect	Halotestin
Estrogenic Side Effects (Gyno, Fat gain, etc)	None
Androgenic Side Effects (Prostate Growth, Acne, etc)	Yes, aggressively
Hair Loss	Yes, slightly
Cholesterol	Yes
High Blood Pressure	Yes, slightly
Aggression	Yes, aggressively
Testicular Shutdown	Yes
Prolactin	Unlikely
Liver Toxic	Yes
Kidney Toxic	Yes
Neurotoxic	Yes, aggressively

Dihydrogen testosterone and Dihydrogen testosterone derivatives

The DHTs are actually some of the Steroids that are known for causing fewer side effects than others. They're also remarkably good at driving Anabolism and Strength.

6. METENOLONE (PRIMOBOLAN)

Primobolan or Primo is a Steroid that is often misunderstood, and people will often just simply ignore it because 'it isn't strong'.

There is some truth to this, as far as Anabolism goes, it is even slightly weaker than Testosterone, but is significantly less Androgenic.

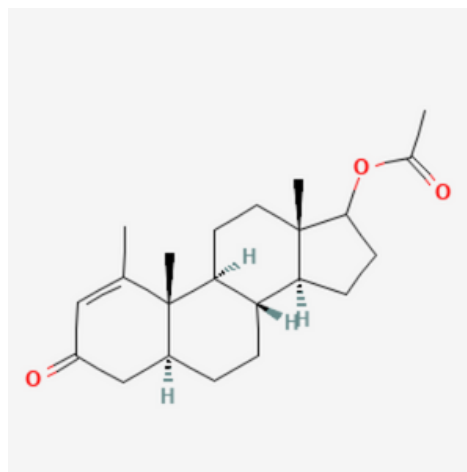


Figure 9: [Metenolone Acetate](#)

There are two versions of Primo on the market, an Oral (Acetate) and Injectable (Enanthate), but before we get into the chemistry, we need to discuss two things. Primo Ace is tough to find, and real Primo is just as hard to find - as it is often substituted with a cheaper Masteron Enanthate.

The oral version is actually 17 Beta Alkylated, meaning it is less liver toxic than the 17 Alpha Alkylates. Overall, Primo is actually just low on most side effects. Due to the low Androgenic rating and the mildness of the drug, it is tolerated remarkably well - even by females. Primo also seems to be a lot more popular in Europe.

As it is a DHT Derivative, Primo will not convert into Estrogen, as it cannot interact with the Aromatase Enzyme. DHT in general is also a lot stronger than Testosterone [6], and supposedly also has a stronger binding affinity 5 times stronger than normal Testosterone.

Quality	Primobolan
Anabolic: Androgenic Rating	88: 44 - 57
Estrogenic	No
Injectable or Oral	Oral and Injectable
Half-Life	24 - 72 Hours (Acetate) 10 Days (Enanthate)
Hair Loss	Unlikely, but possible



Is Primo good for Muscle Gain?

Primo is one of the driest gainers you can get. That means gains will only come slowly, but they will certainly be quality gains

Why is it called Mild?

It is called mild because you won't have as many side effects, especially bloating

Does Primobolan convert Estrogen?

No, none of the DHTs do

Overall, Primobolan is for those who actually want to do a lean gain or those who are a bit older and don't want to run the sides of 19-Nor Steroids anymore. It can absolutely be used to gain muscle, just know your diet, training, and sleep will have to be on point.

Side Effect	Primobolan
Estrogenic Side Effects (Gyno, Fat gain, etc)	None
Androgenic Side Effects (Prostate Growth, Acne, etc)	Yes, slightly
Hair Loss	Unlikely
Cholesterol	Yes, slightly
High Blood Pressure	Yes, slightly
Aggression	Unlikely
Testicular Shutdown	Yes
Prolactin	Unlikely
Liver Toxic	Yes (Acetate) No (Enanthate)
Kidney Toxic	Yes
Neurotoxic	Unlikely

7. DROSTANOLONE (MASTERON)

Drostanolone or Masteron is known as the poor man’s Primobolan, and that is kind of true.

They both portray a pretty good ability to drive protein expression, but both will be chosen last by most bodybuilders to build mass in the off-season.

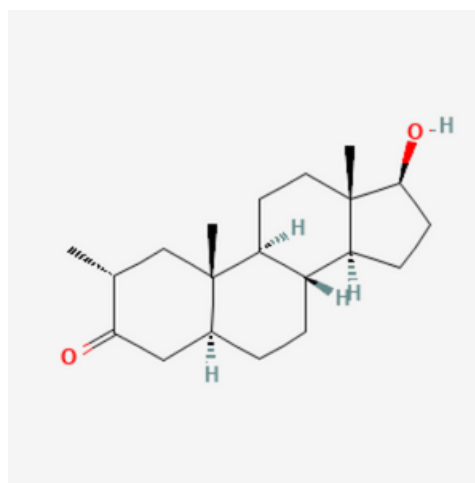


Figure 10: [Drostanolone](#)

Masteron’s anabolism ranges from just shy to just north as Anabolic as Testosterone, but it will mostly be used as a cutting compound. It won’t lead to fat loss, but the fact that it acts as a low(er) level Aromatase Inhibitor, makes it pretty good in a cutting environment.

Just like all the other DHTs, it does not convert to Estrogen via the Aromatase Enzyme. As mentioned before, DHTs also have a stronger binding affinity compared to Testosterone [6]. Interestingly enough, DHTs are also quite good at driving force production and motor neuron function [7].

This means that using a butt load of DHT derivatives could yield the greatest amount of Strength gains, and since they’re also good at driving Protein Expression, you can gain, a lot.

Quality	Masteron
Anabolic: Androgenic Rating	62 - 130: 25 - 40
Estrogenic	No
Injectable or Oral	Injectable
Half-Life	4 - 5 Days (Propionate) 10 Days (Enanthate)
Hair Loss	Unlikely, but possible



Is Masteron good for bulking?

It can be yes. Many have found quality gains with Masteron, granted you train, sleep, and eat extremely hard

What's the difference between Masteron propionate and enanthate?

Literally just the half-life, and how often you need to inject it

Masteron vs Primobolan?

Primo is slightly better, Masteron will get you 80% of the results

Masteron is shoved to the side by many as a cutting compound for the last few weeks of prep. The reality is that it can be extremely good at building or retaining muscle mass, but it will require that you use it properly.

Side Effect	Masteron
Estrogenic Side Effects (Gyno, Fat gain, etc)	None
Androgenic Side Effects (Prostate Growth, Acne, etc)	Yes, slightly
Hair Loss	Unlikely
Cholesterol	Yes, slightly
High Blood Pressure	Yes, slightly
Aggression	Unlikely
Testicular Shutdown	Yes
Prolactin	Unlikely
Liver Toxic	No
Kidney Toxic	Yes
Neurotoxic	Unlikely



8. OXANDROLONE (ANAVAR)

Anavar is the most popular compound used by females, but is still used by men regularly to increase muscle size and conditioning. It is notoriously hard to produce and will fetch a pretty penny. Like other DHTs, Anavar cannot convert into Estrogen, as it does not interact with the Aromatase Enzyme.

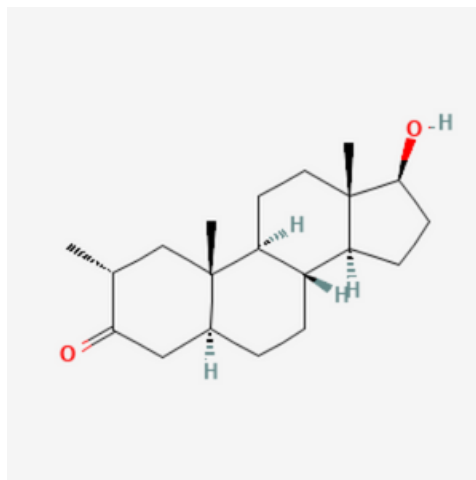


Figure 11: [Oxandrolone](#)

Anavar is as close as scientists ever came to designing the 'perfect' Steroid, as it seems to have the least amount of side effects of all the Steroids - maybe Primo has something to say here. That being said, Anavar is still a pretty decent compound.

Not quite as Anabolic as other Steroids, but still remarkably good at building lean muscle mass. See, all DHTs will directly increase Force Production [7] - combining this with progressive overload and a lot of food, you're bound to gain lean muscle mass.

As a DHT derivative, it has zero ability to convert into Estrogen via the Aromatase Enzyme. Overall, this is a compound used often in the cutting season to make sure you retain as much muscle mass as possible.

As an oral, you can also expect insane cell hydration, meaning you'll feel pretty full. Some have complained that in the off-season you get so full that lower back pumps are prevalent. Taurine could help with that.

Quality	Anavar
Anabolic: Androgenic Rating	322 - 630: 24
Estrogenic	No
Injectable or Oral	Oral
Half-Life	9 Hours
Hair Loss	Unlikely, but possible



Does Anavar affect Kidneys?

Interestingly enough, Anavar is the only oral Steroid that does not get metabolized by the Liver, but rather by the Kidneys. So, yes, Anavar is bad for the Kidneys

Is Anavar strong?

It can be. While more experienced bodybuilders might opt for something like Anadrol in the off-season or Winstrol when on prep, Anavar is still pretty strong

Cutting or Bulking?

Both actually. Many will only use Anavar while on prep, and while oral Steroids could help in the off-season, they seem to have a greater potential as a pre-contest compound

Side Effect	Anavar
Estrogenic Side Effects (Gyno, Fat gain, etc)	None
Androgenic Side Effects (Prostate Growth, Acne, etc)	Yes, slightly
Hair Loss	Unlikely
Cholesterol	Yes
High Blood Pressure	Yes, slightly
Aggression	Unlikely
Testicular Shutdown	Yes
Prolactin	Unlikely
Liver Toxic	Yes
Kidney Toxic	Yes
Neurotoxic	Unlikely

9. STANOZOLOL (WINSTROL)

Stanozolol, Winstrol, or Winni is one of the most popular cutting drugs on the market. It was actually formulated by condensation of the 3-keto-aldehyde moiety of Oxymetholone (Anadrol) with Hydrazine.

It is a DHT derivative, meaning it has an inability to convert into Estrogen because it does not interact with the Aromatase enzyme. Winstrol is also rather good at stimulating both connective tissue (prostaglandin E2 (PGE2), collagenase, gelatinase, and stromelysin) and protein expression [8].

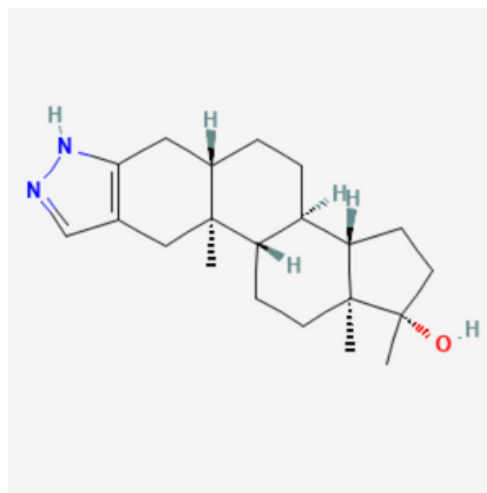


Figure 12: [Stanozolol](#)

Winstrol is often compared to Anavar, and while they have similarities, Anavar will have fewer sides, and Winstrol will also be a more cost-effective compound. The other thing to mention is that Winstrol will result in a drier and more grainy look compared to Anavar.

This is because Winstrol will actually lower Progesterone in the body, which is why it is often used with 19-Nor Testosterone Steroids [9].

Quality	Winstrol
Anabolic: Androgenic Rating	320: 30
Estrogenic	No
Injectable or Oral	Oral
Half-Life	9 Hours (Oral) 24 Hours (Injectable)
Hair Loss	Yes, slightly



Can you build muscle with Winstrol?

Absolutely. While it is more commonly used when fat loss is the overarching goal, it has plenty of ability to help you increase strength and size

How fast do you see results from Winstrol?

10 - 14 days

Injectable Winstrol?

While injectable Winstrol is available on the market, it is suspended in water and should be used with caution

Overall, Winstrol is a very popular drug that is used almost exclusively when trying to lose weight. That being said, those in the know, know that Winstrol can be used to increase strength and size without the bloat of other compounds.

Side Effect	Winstrol
Estrogenic Side Effects (Gyno, Fat gain, etc)	None
Androgenic Side Effects (Prostate Growth, Acne, etc)	Yes, slightly
Hair Loss	Yes, slightly
Cholesterol	Yes
High Blood Pressure	Yes, slightly
Aggression	Unlikely
Testicular Shutdown	Yes
Prolactin	Unlikely
Liver Toxic	Yes
Kidney Toxic	Yes
Neurotoxic	Unlikely

10. OXYMETHOLONE (ANADROL / ANAPOLON / ANAP50S)

Oxymetholone or Anadrol is considered a brutish and powerful Oral Steroid. Medically it is used to treat those that have lost weight due to illness, and it is also used to increase red blood cell count [10].

It is important to understand that while Anadrol is technically a DHT, it acts much more like a 19-Nor Steroid. What this means is that you can expect a tonne of fullness, and strength, but you can also expect a fair amount of Estrogenic side effects.

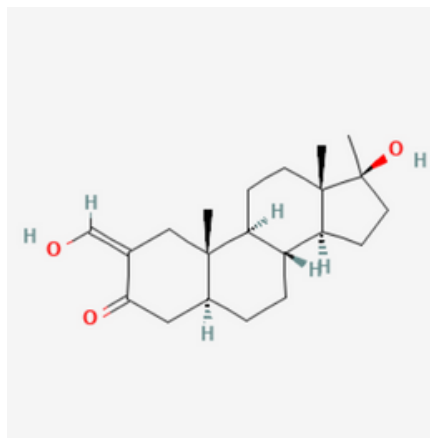


Figure 13: [Oxymetholone](#)

This may come as a surprise, seeing as DHTs cannot convert to Estrogen. Thus, Oxymetholone somehow raises Estrogen in the body (quite rapidly) but we're not sure why - there are a few theories if you feel like looking around - William Llewellyn mentions that this is due to the increased stability of the 3-Keto group [11]

This is also known as the oral that will do the most amount of damage to your liver, and you should proceed with caution. Insanely strong, however, and you can expect both muscle and strength gains - especially if you use it before a workout.

Quality	Anadrol
Anabolic: Androgenic Rating	320: 45
Estrogenic	Yes, very
Injectable or Oral	Oral
Half-Life	8 - 9 Hours
Hair Loss	Yes, slightly



Does Anadrol raise Prolactin?

We have to go back to the 1960s for a French study to say that no, it does not [11]

Can it be used for cutting?

If you want to, sure. Ideally, this drug is going to be used to drive protein expression, cell hydration, and strength. That being said, it could be used to give you a bit of fullness if you needed it

Is it better than Dianabol?

Significantly stronger, but you're going to be feeling a lot more side effects

Side Effect	Anadrol
Estrogenic Side Effects (Gyno, Fat gain, etc)	Yes
Androgenic Side Effects (Prostate Growth, Acne, etc)	Yes, slightly
Hair Loss	Yes, slightly
Cholesterol	Yes
High Blood Pressure	Yes
Aggression	Yes
Testicular Shutdown	Yes
Prolactin	Unlikely
Liver Toxic	Yes
Kidney Toxic	Yes
Neurotoxic	Unsure

11. MESTEROLONE (PROVIRON)

Proviron is not really one of the 'staple' drugs in the bodybuilding world, but it is still used by various athletes. It is theorized to be a valid treatment for male depression, partly because it can increase Free Testosterone levels [12].

While Proviron does have some Anabolic activity, it is rather mild, and you will rarely ever hear of someone using Proviron to increase lean muscle mass [13]. The reason for this is that Proviron will be rendered mostly inactive by 3α-hydroxysteroid dehydrogenase in muscle tissue.

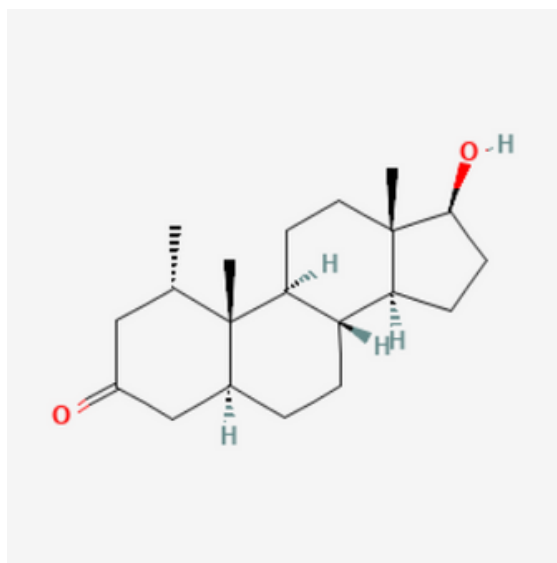


Figure 14: [Mesterolone](#)

Proviron is also unlikely to cause suppression of Testosterone like other Steroids (in normal doses), and might actually help with fertility. Proviron will also bind to SHGB (Sex Hormone Binding Globulin), which will increase the amount of Free Testosterone in the body.

This is why Proviron is used by bodybuilders, to increase the actual amount of active compounds in the blood, resulting in better results from a lower dose of Steroids.

Quality	Proviron
Anabolic: Androgenic Rating	100 - 150: 30 - 40
Estrogenic	No
Injectable or Oral	Oral
Half-Life	12 - 13 Hours
Hair Loss	Yes, slightly



Does Proviron suppress testosterone?

Only when high(er) dosages are used

Does Proviron increase sperm count?

There are some studies showing that it could, yes [14]

Does Proviron lower Estrogen?

Yes, but not nearly as much as Arimidex or the other AIs

Overall, Proviron has a certain place in contest prep, and maybe in a situation where you want to use fewer overall drugs. That being said, for all the benefits it brings, it is still not incredibly popular.

Side Effect	Proviron
Estrogenic Side Effects (Gyno, Fat gain, etc)	Yes
Androgenic Side Effects (Prostate Growth, Acne, etc)	Yes, slightly
Hair Loss	Yes, slightly
Cholesterol	Yes
High Blood Pressure	Yes
Aggression	Unlikely
Testicular Shutdown	Unlikely
Prolactin	Unlikely
Liver Toxic	Yes, slightly
Kidney Toxic	Yes, slightly
Neurotoxic	No

Nandrolones

The Nandrolone group or 19-Nors are named that because the 19th Carbon has been removed - hence the "nor". They are immensely popular but are also infamous for being hard to manage and use successfully. They are also the Steroids most prone to cause brain damage.

12. NANDROLONE DECANOATE (DECA)

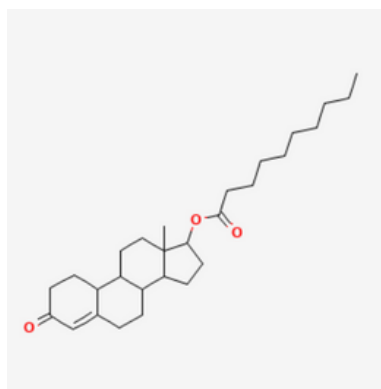


Figure 15: [Nandrolone Decanoate](#)

Deca is one of the most complicated Steroids to understand and use properly. It is really used exclusively to increase muscle mass, and will never find its way into a cutting cycle. Deca was actually introduced into the market after the shorter chain version called Nandrolone Phenyl Propionate (NPP). Deca won this battle because it requires fewer injections.

Deca possesses lower Estrogenic activity than Testosterone, but due to the fact that is a Progestin, it does have an affinity for the Progesterone receptors - though not as strong as Trenbolone. This can lead to Prolactin side effects unless managed - see Side Effect Management.

While Deca only possesses slightly higher Anabolic activity than Testosterone, it is still a favorite amongst bodybuilders. Word of wise, this drug is remarkably good at causing cell volumization and hydration, so if you are prone to blood pressure or bloat, stay away from Deca.

While Deca can be good for an off-season in the right environment, due to certain effects (like not converting to Estrogen in the liver) it has monumental side effects that most want to avoid.

Quality	Deca
Anabolic: Androgenic Rating	125: 37
Estrogenic	Yes, slightly
Injectable or Oral	Injectable
Half-Life	15 Days
Hair Loss	In rare cases



Why is Deca good for the joints?

Deca is both good for the joints and overall soft tissue repair due to its ability to increase collagen synthesis and cell volumization (15)

Why does Deca bloat you?

It doesn't, you just use too much other stuff, like Testosterone, that does

Is NPP better?

No, they're literally exactly the same

It may seem like Deca is not good based on this information, but it has a place in some people's stacks. If you never had a problem with getting full or maintaining size, then Deca might not be the best option for you.

Side Effect	Deca
Estrogenic Side Effects (Gyno, Fat gain, etc)	Yes, slightly
Androgenic Side Effects (Prostate Growth, Acne, etc)	Yes, slightly
Hair Loss	In rare cases
Cholesterol	Yes, aggressively
High Blood Pressure	Yes, aggressively
Aggression	Unlikely
Testicular Shutdown	Yes
Prolactin	Yes
Liver Toxic	Unlikely
Kidney Toxic	Yes, slightly
Neurotoxic	Yes



13. TRENBOLONE

Trenbolone hardly needs an introduction, but let's give it one anyway. Widely known to be one of the strongest Androgens on the market, and some claim that it is the strongest.

While Trenbolone is in the same family group as Deca, the two only have a few similarities.

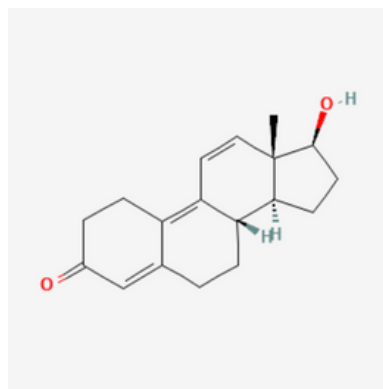


Figure 16: [Trenbolone](#)

First off, Trenbolone is about 5 times as Androgenic and Anabolic as Testosterone, and because of this, you can expect some serious results and side effects. It was never really intended for human use and is only used in livestock to increase weight and appetite [16].

Because of this, finding actual research on this compound is relatively hard. That being said, Trenbolone will not convert into Estrogen and is thus seen as a very dry compound. It can be used in both off-season and prep. It will act as a Progestin, causing Prolactin side effects, however.

While Tren could be the strongest drug you could lay your hands on, you should think carefully before doing so. Side effects include liver toxicity, kidney toxicity, brain damage, aggression, and horrible lipids, and it has even been the 'reason' for some violent crimes.

Quality	Trenbolone
Anabolic: Androgenic Rating	500: 500
Estrogenic	No
Injectable or Oral	Injectable
Half-Life	3 Days (Acetate) 10 days (Enanthate) 14 days (Hexahydrobenzylcarbonate)
Hair Loss	Yes, slightly



Tren Ace vs Tren Enanthate?

There is no real difference between the two, that being said, Enanthate could lead to fewer side effects

How to avoid Tren Cough?

You can't. You have to run that risk unfortunately

Is it really that powerful?

Yes, it will demand the respect it deserves

Trenbolone is not to be messed with. Does it even have a place in your stack? Well, that's up to you to decide. That being said, you have to think long and hard before loading this one into a syringe.

Side Effect	Trenbolone
Estrogenic Side Effects (Gyno, Fat gain, etc)	No
Androgenic Side Effects (Prostate Growth, Acne, etc)	Yes
Hair Loss	Yes, slightly
Cholesterol	Yes, aggressively
High Blood Pressure	Yes, aggressively
Aggression	Yes, aggressively
Testicular Shutdown	Yes
Prolactin	Yes
Liver Toxic	Yes
Kidney Toxic	Yes
Neurotoxic	Yes



HOW TO DECIDE WHICH ONES TO TAKE?

Of course, we cannot tell you to use these substances. They are illegal. That being said, we can look at research with one another to make sure that you do not accidentally use the wrong compounds with one another, and hurt yourself. There are a few different sections of Toxicity we need to look at:

- Renal Toxicity: These are compounds that are going to put a strain on the Kidneys (All Steroids will place some strain on the Kidneys)
- Liver Toxicity: These compounds (mostly Orals) are going to be taxing your liver
- Neuro Toxicity: Certain Steroids have a real effect on brain function (Particularly the 19-Nors)

That being said, we also want to identify what type of goal you have. Without keeping your goal in mind, you wouldn't be able to identify which compounds to introduce. For ease of maintenance, we usually have one of three goals:

- Dirty Bulk: These individuals do not gain size easily, and they are even harder to fill out. These people could use "wet" compounds with greater success than others
- Lean Bulk: These individuals have always been rather large, and are quick to suffer from high blood pressure. They should stay away from "wet" compounds
- Strength: These individuals are seeking strength gains above all else

Now that you can identify which group you fall into, let us have a look at how you can actually design your cycle, based on the general applications of the compounds. For this, I have looked at the research and taken inspiration from individuals like Broderick Chavez.

1. Testosterone Base: You need to have some Testosterone base, be it pure Testosterone, Boldenone, or if you hate your liver, Metandienone
2. Protein Expression: This is where you add a compound to actually drive anabolism and muscle building. The DHTs are remarkably good at this
3. Soft Tissue Repair: If you need it, you can look at Nandrolone for soft tissue repair
4. Orals/Trenbolone: These should be reserved for a "use only when needed" situation, like competition time

It would also be wise not to use substances that have similar side effects, as running that same line again and again will lead to some pretty bad adverse effects.

ANCILLARIES

As you might know, there are other substances that are regularly used, mostly just to manage the side effects of these substances.

Aromatase Inhibitors

AIs are used to stop the conversion of Testosterone into Estrogen via the enzyme Aromatase. This can be used to avoid Estrogenic side effects like Gynecomastia, bloat, and excess fat gain. There are three main AIs used in the bodybuilding world:

1. Exemestane (Aromasin)

Aromasin is known as a suicide inhibitor. It will bind to the Aromatase enzymes and stay bound, forever. This leaves the enzyme it is bound inactive forever, meaning that there is zero risk of Estrogen rebound - like with Arimidex and Letrozole. The benefit of Aromasin is that because it is the weakest of the big three, you're better able to be precise with your Estrogen levels.

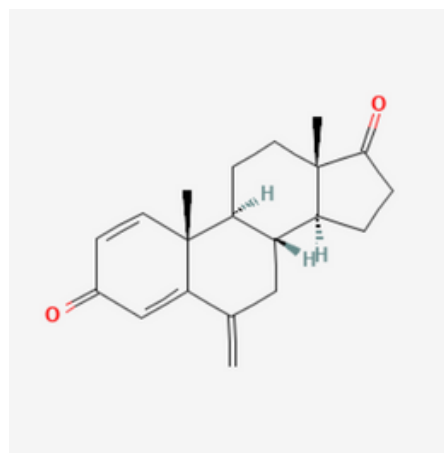


Figure 17: [Exemestane](#)

2. Anastrozole (Arimidex)

Arimidex is an AI that is slightly stronger than Aromasin but is not a suicide inhibitor. This means when you do eventually stop taking Arimidex, you will have an Estrogen rebound. Arimidex, like Aromasin, will lower Estrogen levels throughout the body, not just in breast tissue.

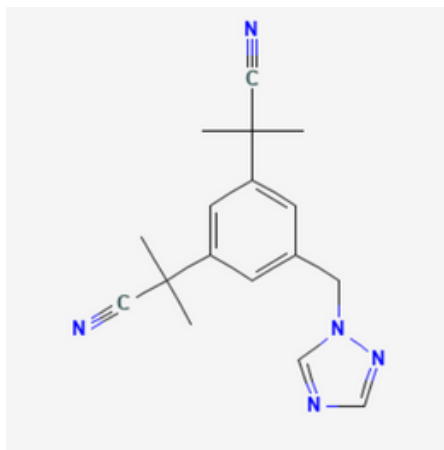


Figure 18: [Anastrozole](#)

3. Letrozole (Femora)

Letrozole is simply known as the strongest of the three, and should only be used in dire situations. Taking too much will definitely lead to severe side effects due to low Estrogen.

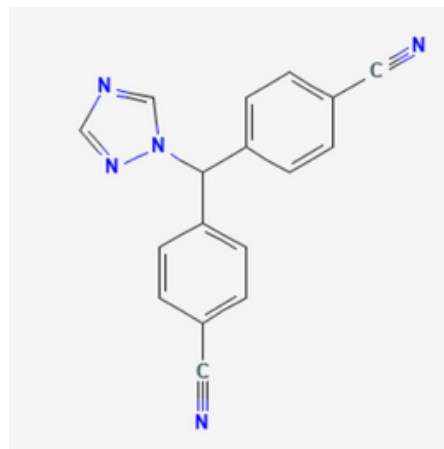


Figure 19: [Letrozole](#)

Selective Estrogen Receptor Modulators

SERMs are used medically for breast cancer patients, but in the bodybuilding world, they are used for two purposes:

1. To stop the development (or progression) of Gynecomastia forming around breast tissue
2. To restart the HPTA (hypothalamic-pituitary-testicular axis)

They often form part of a PCT, and are often used within a cycle to stop the development of Gynecomastia.

1. Tamoxifen Citrate (Nolvadex)

Nolvadex is a drug that is used more widely than Clomid, the reason for this is that the number of side effects from Nolvadex is fewer. Nolvadex can be used for various reasons and can lead to:

- Increased FSH (Follicle-stimulating hormone) and LH (Luteinizing hormone) levels [34]
- Blocking of Estrogen at the breast tissue, stopping the development of Gynecomastia [35]
- Can promote Estrogen in the Liver, leading to better blood lipid levels [36]

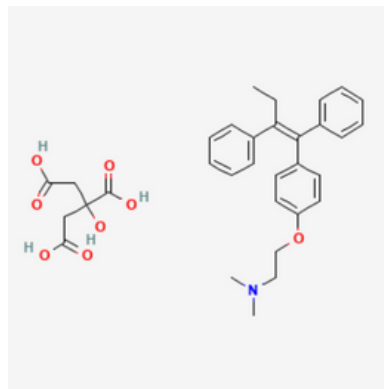


Figure 20: [Tamoxifen Citrate](#)

2. Clomiphene (Clomid)

Clomid is the other common SERM used, especially when in a PCT environment. Many will opt to use both, and that could be the better option. One major drawback of Clomid is "Clomid Crazies" - the stuff is pretty bad for your mental state. It will do the same as Nolvadex, just do different degrees, as Clomid is a bit stronger in raising LH and FSH levels.

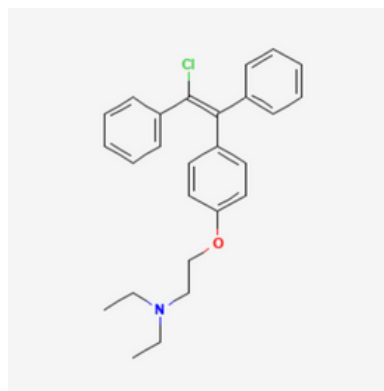


Figure 21: [Clomiphene](#)

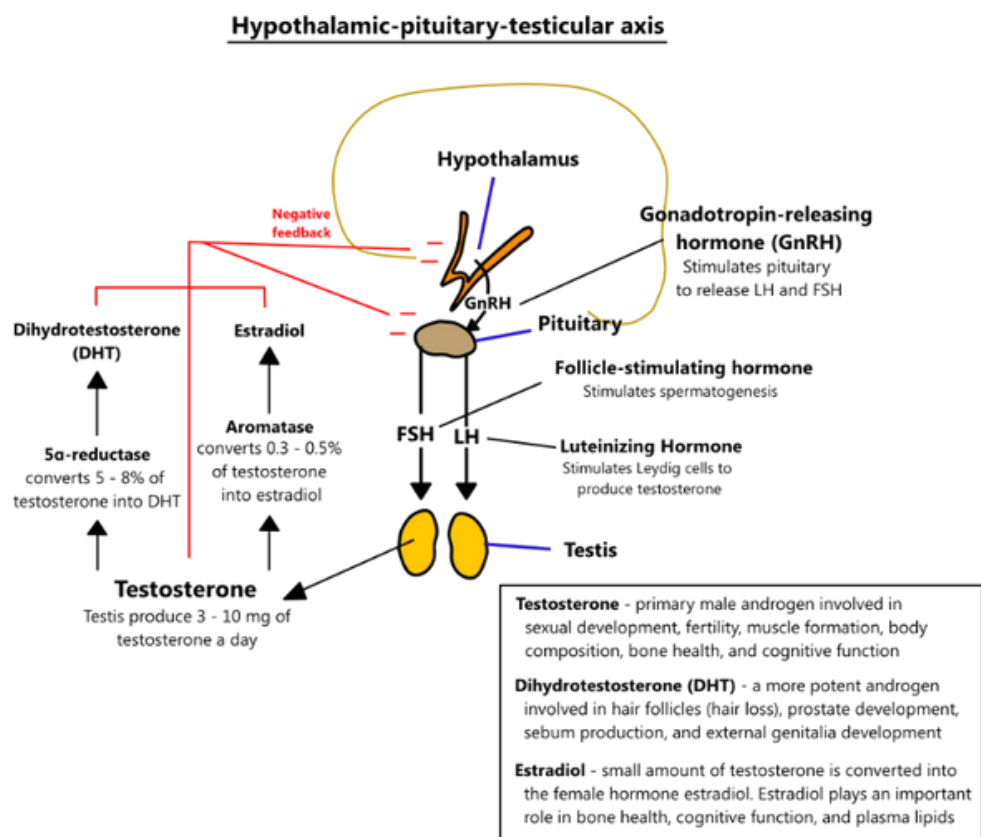


SIDE EFFECT MANAGEMENT

As you may expect, these compounds may bring about a decent amount of Adverse Effects if you do not manage them. In fact, many believe that there are no bad drugs, you only use them improperly. Let's look at the most common sides, and how we can try to manage them:

Hair Loss

Hair loss will occur due to the conversion of Testosterone into DHT, which will negatively impact the hair follicles on your head. If you wish to avoid this, do not use too many of the compounds that do convert into DHT.



A common misconception is that DHT derivatives will also cause hair loss. This is only true in greater doses. To minimize any hair loss, you can also look at DHT blockers, products that will inhibit 5 Alpha Reductase.

Blood Lipids (Cholesterol)

All Steroids will increase both LDL (bad) and total Cholesterol, whilst decreasing HDL (good) Cholesterol [17]. There is nothing you can do to avoid this, this will happen with all Steroids. That being said, we can do certain things to help remedy this:

- Consume >5000mg of Omega 3 Fatty Acids daily [18]
- Perform regular cardio, preferably a combination of HIIT and LISS [19]
- You can utilize slow Niacin as a means to increase good cholesterol [20]
- Increase dietary fiber to >30g daily, minimum [21]

Blood Pressure

Most Steroids will increase blood pressure to some extent, especially those that are good at increasing red blood cell count, such as Boldenone [22]. Seeing as many of these Steroids are used as an Anemia treatment, this makes complete sense.

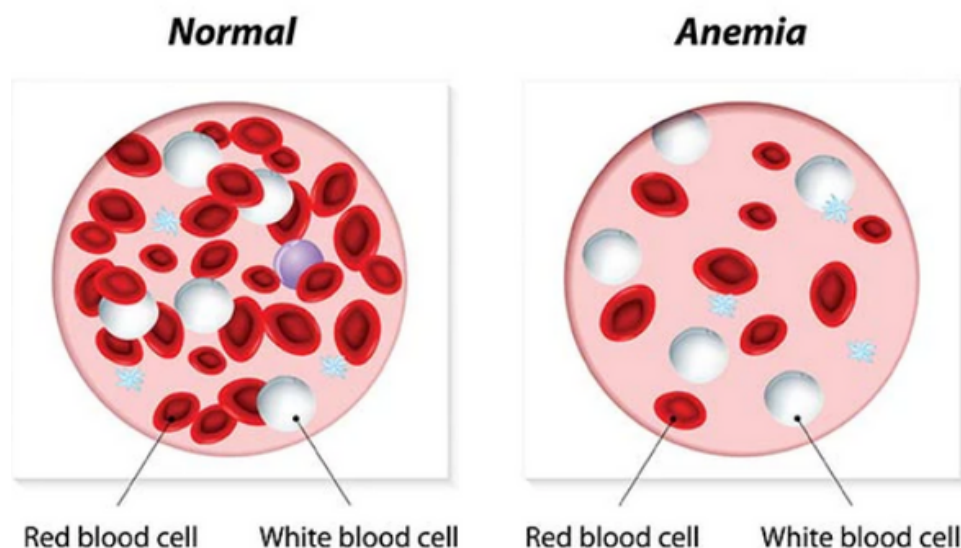


Figure 23: While Steroids (in medical doses) can cure [Anemia](#), in sports doses, however, Steroids can lead to high blood pressure



As seen above, having more red blood cells will physically fill up more empty space in the blood vessel. This does increase the oxygen-carrying capacity, which could increase endurance. That being said, it will also lead to the risk of cardiac arrest. Remedies for this are:

- Don't use Boldenone or other Steroids that increase red blood cell levels too high
- Stay extremely well hydrated and don't get too fat [23]
- Keep Estrogen levels in check [24]
- Follow a diet rich in Omega Fatty Acids and Fiber [25, 26]
- Make use of Statins [27]

Liver Toxicity

All of the oral Steroids will express some liver toxicity, and even some of the injectables like Trenbolone will do so as well. This is a rather tricky one because it isn't the worst side effect seeing as the liver can recover from most damage. That being said, you would still want to avoid it.

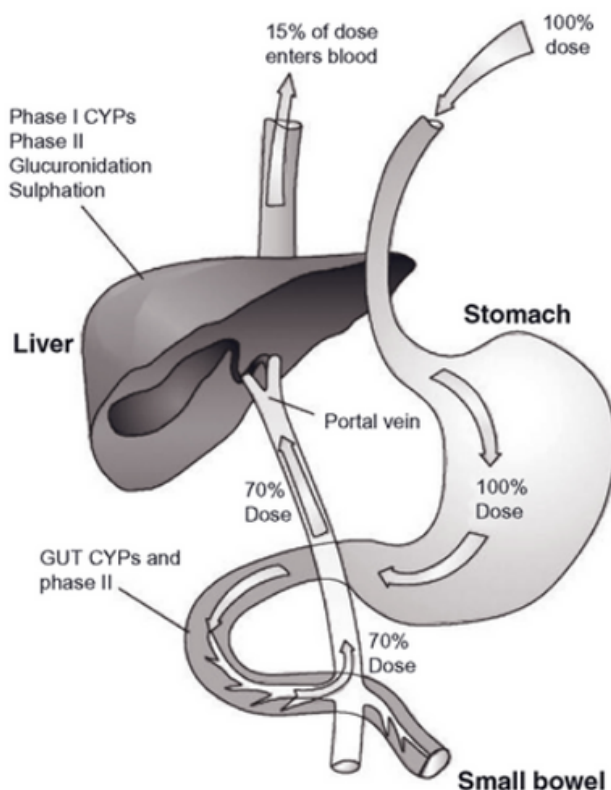


Figure 24: Oral Steroids are Liver Toxic because they will have to survive the [First Pass](#)



While there isn't much you can do to avoid liver toxicity completely, especially when using Oral Steroids, we can still try do certain things that could take some pressure off the liver:

- Manage Blood Pressure and Cholesterol levels
- Avoid consuming Alcohol
- Maintain healthy Estrogen levels
- Make use of Liver health supplements, like Astragalus, N Acetyl Cysteine, Tudca, and IP6

Kidney Toxicity

Compared to liver damage, Kidney damage should open your eyes wide open. See, the kidneys are unable to recover once they are injured. Once they are, you will not even be able to consume more than 100g of protein per day.

The simplest way to avoid kidney damage is to live as healthily as possible. This means consuming plenty of water, lowering blood pressure, lowering cholesterol, decreasing junk food intake, and doing regular cardio.

Most Steroids are Renal toxic to some extent due to an increase in blood pressure. You should definitely monitor your blood results:

- Glomerular filtration rate (GFR)/BUN/creatinine (serum)
- Albumin (urine)
- Urea

Estrogen

Certain Steroids have the ability to interact with the Aromatase enzyme and can then be converted into Estradiol. This happens naturally in male bodies all the time, and while some is rather good, more might actually be better.

A study published in 1976 showed that Trenbolone + Estrogen produced more Anabolism than pure Trenbolone [28]. Now, not only will Estrogen lead to greater gains (due to inflammation), but Estrogen is also Cardio -, Liver -, Renal -, and Neuroprotective [29, 30, 31, 32].

That being said, you could potentially have so much Estrogen that you begin developing breast tissue - Gynecomastia. This can be remedied by using a SERM, like Nolvadex or Clomid. These will not only block Estrogen from the Estrogen receptors in breast tissue but will promote Estrogen in the Liver (which is healthy).

You can also opt to keep Estrogen in check prior to this happening by using an AI such as Arimidex, Aromasin, or Letrozole. These will be incredibly harsh on your blood lipids, however.



Prolactin

Prolactin is the weird cousin of Estrogen and always manages to push its drunk nose into every celebration. The Pituitary gland naturally releases some Prolactin, but certain Steroids, like the 19-Nors, can increase Prolactin in the body. This can lead to nipple lactation, fat gain, muscle pain, and erectile dysfunction. There are a few ways of managing prolactin levels:

- Managing your Estrogen levels significantly lowers your chance of suffering from prolactin side effects
- Using a lot of DHT Steroids could negate the effects of prolactin
- Winstrol will lower progesterone in the body, and thereby prolactin as well
- Cabergoline is another (yet very expensive) treatment option

My personal favorite way, however, is Vitamin B6. Vitamin B6 or pyridoxine has actually been shown to help manage Prolactin [\[33\]](#). I can say from personal experience this does actually work, and individuals like Dave Crossland have mentioned that taking Vitamin B6 even prior to you using substances that'll raise Prolactin might be best.

Testicular Shutdown

This is one side effect that you cannot avoid no matter how hard you try. Any and all dosages will cause some downregulation of Endogenous Testosterone production. We can, however, make use of a Post Cycle Treatment (PCT) to remedy the situation once the cycle has passed. Here are some general rules for a successful PCT:

- Your dose and cycle duration will determine your PCT
- You are best making use of one of the SERMs, ideally both
- You are best making use of hCG (Human chorionic gonadotropin) with the SERMs
- Do not use any Anabolics when doing a PCT
- If you plan to make your good lady pregnant soo, you could benefit from both hMG (human menopausal gonadotropin) and Carnitine



SYNERGY AND CONFLICT

There is a notion that there could be synergy between certain Steroids, but there is very little evidence of this. Certain Steroids might work well together, and some will cause great conflict. While the synergy will largely depend on other factors such as your own genetics, we can look at some options that will cause conflict in almost everyone:

Testosterone, Boldenone, Deca-Durabolin, and Metandienone

The first problem with this cycle is the fact that three of these drugs do exactly the same thing. Refer back to the Testosterone section, and you'll realize Testosterone, Equipoise, and Dianabol are all 'brothers' and do pretty much the same thing.

Add in something like Deca whose side effects are more prominent in the environment you just created (high Estrogen, high blood pressure) and you will be on the highway to gyno and a heart attack.

Testosterone, Deca-Durabolin, and Trenbolone

Not only should Trenbolone be left alone 9 times out of 10, but now you're trying to stack it with another Progestin - Deca-Durabolin? One is known to cause cell volumization and blood pressure (placing strain on the kidneys) and now you take Trenbolone on top of that which is bad for the kidneys full stop? Horrible idea, there are better combinations.

Testosterone, Deca-Durabolin/Trenbolone, and Oxymetholone

While using Testosterone with either of the 19-Nors should be okay in relative doses, adding Oxymetholone on top of that is asking for trouble in my opinion. Oxymetholone is notorious for messing with Estrogen levels and is hard to manage. Add that with drugs that raise Prolactin and you're asking for milky nipples.

High doses of Boldenone

Boldenone is actually an okay drug. In fact, it is often used as HRT instead of Testosterone, seeing as the Androgenic sides are lower. That being said, it is remarkably good at increasing red blood cell count [\[22\]](#), and using too much will certainly increase the risk of stroke.

Too many/much Oral(s)

This should be self-explanatory, but completely abusing oral Steroids will quickly humble you due to liver toxicity, and potential kidney damage.



CONCLUSION

Steroids work. Nobody has ever denied that, and no one ever will. They have their fair share of drawbacks of course, and this is why medical drugs like SARMs were invented in the first place. You want something that will have the least amount of Androgenicity, to cater to those that are Androgen sensitive, like females and children.

You're taking your own life into your own hands, and by doing so, you need to be prepared for the consequences. Hardly anyone only does one cycle, and then stops. This is a lifelong investment that has the potential of changing your entire life.

Take great care about the selection, dosages, and duration of the drugs you use, and you might get out on the other side without too many side effects.

Also, if you are on gear, own up to it. Don't lie to young kids about what is achievable naturally.

Hope this helps.



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