

Over The Counter Steroid Review

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This month and next, I am going to do a review of many of the steroid products that are floating around on the supplement shelves and Internet sites these days. These are the steroid products that are not on the controlled substance list (but not exactly natural, either) and which companies are marketing to bodybuilders. The legality around these products is touchy and ambiguous and something I am not gonna touch on at all. That is not my area and the last thing I want to do is say something that is inaccurate or irresponsible that someone else can then attribute to me and cause all kinds of craziness. No, what I am is a chemist with a storage house of steroid pharmacology knowledge in my brain so I will stick to what I know best. Of course, my brain is probably too big, which is why if you are not already familiar with any of this subject matter, you will likely feel your head start to spin as you read this article. But do understand that if I dumbed this article down, I would just be repeating the same information that has been passed around millions of times before, so instead I will provide the highly technical juicy stuff that perhaps about five people out there will understand. Hopefully 10. Now before I get started, there is a very, very important point I have to make. What I am discussing here is chemicals. I am not mentioning any brand names and I am naming the compounds only by their correct chemical names. These days, it is rare to find over-the-counter (OTC) steroid products referred to by their actual correct names; usually, they are listed under some completely bastardized form of the correct chemical name or sometimes just by a non-descriptive trademark name. So you may not be able to match up the chemical names I give to you here to names on actual products. Sorry about that, but my purpose here is not to be your anabolic Rosetta Stone; it is just to discuss pharmacology. One more thing—just because a product says it has a certain steroid in it does not mean that particular steroid—or any steroid for that matter—is in the product. I have tested many OTC steroid products and a very high percentage of the time the product had something else in it, or something unidentifiable, or nothing in it at all. In fact, things have gotten much worse lately due to the tightening restrictions around Chinese steroid exporters resulting from international pressure from Olympic nations. Remember, the 2008 Olympics are in Beijing. I wouldn't be surprised if by the time you read this article, most of these products would be pretty much unavailable. OK, here is part one of my list of OTC steroids.

4-chloro-17a-methyl-androsta-1,4-dien-3b-17b-diol

This steroid is a precursor to the most widely utilized steroid by East German (DDR) athletes pre-1990. It (the stuff it converts to) was marketed by the pharmaceutical company Jenapharm under the name Oral-Turinabol (OT). OT is also sometimes referred to as dehydrochloromethyltestosterone. Like the old prohormone 4-AD, this is a 4-en-3 β -ol and so should have excellent first-pass conversion to the active compound in the liver. OT (the target hormone) will not aromatize and probably only has a moderate suppressive effect upon the HPTA. There is not a whole lot of literature out there on its anabolic potency, though Vida has it listed as less than one time the anabolic potency as methyltestosterone orally, so this is not the most potent stuff in the world. The Vida data on androgenicity is lacking, but the chemical's combination of delta 1,2 unsaturation and 4-chloro substitution likely combine to make it pretty low in this regard. As a weak androgen and non-aromatizer, it probably does not have much liver toxicity, although being a 17 α -methyl the potential is always there.

Bottom line is this stuff is one of the safer products out there, although dosages of at least 25-50 milligrams a day for men are probably needed for really noticeable effects. These effects nonetheless should be high quality—lean mass with minimal water retention.

4-chloro-17 α -methyl-androst-4-en-3 β ,17 β -diol

This is very closely related steroid to the one I just mentioned, differing only by the lack of the 1,2-double bond. It converts to a steroid called Methylclostebol that may or may not have been marketed in Europe at one time. Once again, the 4-chloro substitution prevents it from being aromatized and also prevents 5 α -reduction to a DHT derivative so its androgenic potential is only moderate (Vida has it at 0.1 versus methyltest). Methylclostebol only has an anabolic rating of 0.4 versus methyltest, though, so this precursor—despite likely having excellent conversion—is not a really strong compound. But for safe and clean fun, it's not a bad bet. It likely does not differ too much from the OT precursor in both potency and quality of results.

2 α ,3 α Epithio-17 α -methyl-17 β -hydroxy-5 α -androstane

Contrary to the previous two entries— which were steroid precursors— this is an active steroid. It also differs from the previous two in that it is a very potent hormone. According to Vida, it possesses 11 times the androgenic potency of methyltest while being 0.9 as androgenic. In the lab it breaks down under heat and certain chemical conditions to the steroid DMT (17 α -Methyl-androstan-2-en-17 β -ol), which has similar potency. Whether this happens in the body I don't know, but the possibility exists that this compound is simply a pro-drug and it is DMT that is actually the physiologically active species in the body. This stuff is a methylated derivative of the Japanese drug Epitioestanol, which is used to treat breast cancer due to its estrogen antagonist action. Because of this property, the gains seen from its use are relatively dry. The extent of HPTA shutdown is unknown, but being a powerful hormone, it is not likely to be modest in this regard. Liver toxicity is unknown as well, however user reports are lacking in the usual subjective feedback that indicates heavy liver strain—lethargy, appetite disturbances, etc. This is one of the newest steroid products to hit the market and it is very popular right now. It probably is considered the best bang for the buck of the current lot.

Estra-4, 9-dien-3, 17-dione

This is another steroid precursor, a dione to be specific. Diones only have moderately decent conversion, so this product will not possess the full activity of its active metabolite. The active metabolite in this case is the nandrolone derivative Estra-4,9-dien-17b-ol-3-one and according to Vida, it has an anabolic potency equal to methyltestosterone and an androgenic potency 0.1 times. It does not appear from my knowledge of steroid metabolism that this steroid aromatizes. However the potential for progestational activity is there, as it is with many 19-norandrogens. This stuff has been referred to as a trenbolone precursor, however this is inaccurate because trenbolone has an additional double bond in the structure and the body does not have the capacity (as far as I know) to insert this double bond. Bottom line is that this is a weak hormone with so-so conversion that probably requires 50mg-100mg for physiological effects to be seen in most men. On the upside is the fact that it is not 17a-alkylated, so liver toxicity is not a serious issue.

17a-methyl-1,4-Androstadien-3b,17bdiol

This is a Dianabol precursor. It differs only in the presence of a hydroxyl group in the 3 position, where a ketone is supposed to be, however the conversion of the hydroxyl to the ketone in the body should be quite efficient. The possibility exists, however, for any remaining unconverted material to exert direct estrogenic effects, but I have not heard of any user reports concerning this that have raised any alarm. Dianabol, of course, is a decent anabolic compound with modest androgenic action and low toxicity for a 17a-methyl. Most people feel good on Dianabol and I see no reason why they would not feel similarly on this stuff, unless the estrogen problem I mentioned becomes an issue. Users would likely need a minimum of 25mg to start seeing gains. This stuff came out years ago and when I tested it at the time on my GC/MS I found it contained a mixture of the correct compound and its delta-4 analog (which would be a methyltestosterone precursor). This was likely due to the process used to manufacture it from Dianabol called a borohydride reduction. It gives a mixture of these two isomers unless a certain catalyst is used and apparently the Chinese who made it were not aware of this catalyst. I remember that made me chuckle at the time, but I am sure the Chinese steroid manufacturers have come a long way since then.

5a-androstan-[2,3-c]furazan-17b-tetrahydropyranol ether

In my opinion, this chemical looks a lot more impressive than the actions it has in the body are. It is a structural analog to the methylated steroid Furazabol. Furazabol is an androgen that used to be used in Japan to treat high cholesterol. It is best known as the steroid that Ben Johnson was supposed to be receiving from Dr. Astaphan back in 1988. Of course, the stuff Ben was putting in his ass was actually stanozolol (so the story goes), which led to his humiliating drug-positive days after whipping Carl Lewis's ass in the 100 meters in Seoul.

Furazabol is in fact a lot like stanozolol (aka Winstrol) in that it shares an odd heterocyclic ring attached to the A ring of the steroid nucleus. Pharmacologically, the two are much alike as well—highly anabolic compounds which do not aromatize and give very nice dry gains. However, this analog does not seem to share anywhere near the potency of its methylated cousin. In fact doses as high as 100mg only give very slight gains, if any at all. The rationale behind the development of this stuff (and the stanozolol analog I am addressing next) is that unmethylated analogs of potent methylated compounds should also be potent. This simply is not the case and there are many cases in the literature where this fact has been demonstrated with steroid derivatives. It seems that this is not the case with this either.

[3,2-c]pyrazole-5a-androstan-17b-tetrahydropyranol ether

Like I said, this is the stanozolol equivalent of the furazabol analog I just told you about. And every crappy thing I said about the former applies to this one. I don't think I need say more.

2a,17a-dimethyl-5a-androstan-17b-ol-3-one

This stuff is potent. And toxic. It used to be the best selling of the legal steroids of the post-2005 ban. It also used to be touted as being safe, with little HPTA shutdown or liver toxicity. We now know better. People have reportedly gotten sick from this stuff, some almost died. Many have had prolonged testosterone suppression for long times after taking it. Of course some have loved the stuff and experienced little in the way of negative side effects. Personally, I tried it and it put weight on me, but gave me headaches and bloody noses and made me feel like I was hit by a truck. The companies that originally sold it had to stop because they got letters from the FDA. It now pops up in some formulas, usually hidden under funny names. I suggest if you see any funny products with steroids in them then try to figure out exactly what is in

them, because if they contain this stuff you probably want to steer clear. That's all for this month. Next month I will continue on my review of the OTC steroids.