

ANABOLICS PART II

Practical Application

[The text in this section is extremely faint and largely illegible. It appears to be a continuation of an article or a collection of notes related to the topic of anabolic steroids. The visible fragments of text include words like 'muscle mass', 'testosterone', 'performance', 'side effects', and 'usage'.]

Steroid Cycles

With the wide variety of anabolic/androgenic steroids available, planning the most appropriate cycle may seem like a difficult task to the steroid novice. Even if we have settled on a particular drug or drug combination, it is still easy to question whether or not we are using them in the most effective manner. This is one of those topics which can get more confusing with research, as you will find the popular literature filled with various stacking, cycling, tapering and receptor response (upregulation/downregulation) theories. If you have purchased this book in the hopes it will provide you some new and unusual ways to take anabolic/androgenic steroids, you will probably be disappointed. I have actually developed the opinion that athletes usually place too much importance on cycle construction. Experimenting with fancy dosing patterns, rotation schedules and (especially) tapering routines, hoping they will bring about enhanced results, is, in my opinion, a very unreliable practice. Therefore, in this section I will be ignoring the more lavish intake regimens, and focus on the more fundamental aspects to using these drugs. This is obvious when you look at the sample cycles included, which you will notice display little fluctuation in drug dosages from start to finish. They are not fashioned as such due to laziness, but simply because my personal experience has led me to a place where picking a dosage and sticking with it (unless there is an obvious need to adjust) seems to make the most sense. It is ultimately up to the individual to find out what works best for him or her, as nobody can rightly claim that there is one "correct" way for everyone to use steroids. Here are a few things to think about when deciding on the right cycle for your needs.

Stacking

It is an extremely common practice for an athlete to take more than one individual steroid during a cycle. By taking a combination of steroids, the user is of course seeking to enhance the amount/quality of muscle mass gained from drug therapy. While I'm sure it is no surprise that stacking is generally an effective practice, you should probably give some thought to expected goals and side effects before simply combining steroids. For example, if you are looking to gain considerable mass, the use of two strong androgens like testosterone and Anadrol 50® would be one of the more potent cycles to attempt. But this combination would also lead to very harsh side effects, and may be too uncomfortable for some individuals. In this case it may be a good suggestion to combine a milder anabolic with a base androgen instead. A stack such as Deca-Durabolin® and Dianabol would still produce very formidable muscle mass gains, but would provide the user much less water/fat retention, gynecomastia, hair loss/growth, and acne than the former.

On the other hand, non-aromatizable anabolics are typically the favored class of steroids for cutting/dieting phases of training. This is because the lack of estrogen conversion makes them less apt to induce fat and water accumulation. It is important to remember, however, that these steroids can still suppress endogenous testosterone production during a cycle. Since the administered drug(s) may not provide the body enough androgen content to compensate for this loss, this type of cycle may sometimes interfere with aggression and libido (Deca is a common offender). In such a state the user might become depressed and unmotivated (see: side effects, depression), seriously reducing the quality (results and comfort) of the cycle. Therefore, it is usually a good idea to include some type of androgen during this type of cycle, especially if you have experienced such problems before. The preference would be a non-aromatizing androgenic compound like Proviron®, Halotestin® or trenbolone, which will not increase the likelihood for fat/water retention. In the absence of excess estrogen, the heightened androgen level brought about by these drugs can actually enhance the removal of body fat, and noticeably increase the look of hardness/density to the physique (provided the user's body fat percentage is low enough to make this visible). If such compounds were unavailable, perhaps a weekly (low dosage) shot of testosterone would prove sufficient to ward off any problems.

Finally, it is also good to remember that it is not absolutely necessary to take more than one steroid at a time. The term you hear most often is synergy, which implies that two (or more) steroids used together will often compliment (and amplify) each other, and provide a greater muscle gain than if they had been used consecutively. Though not well understood, a number of studies do suggest that different modes of action might exist for steroids outside of the androgen receptor (which would seem to support the notion that cooperative or synergistic effects can be seen with different drug arrangements). Athletes also seem to know that certain drug combinations work extremely well together (Deca & Dianabol, testosterone and Anadrol 50®, trenbolone and Winstrol® etc.), which is a testament to the notion of drug synergy. But this should not be confused with the idea that you cannot make gains on one drug alone. For example, an athlete new to the world of steroids could make exceptional gains on a cycle of testosterone, Anadrol 50® or Dianabol, without ever needing to add a second drug. Heavily increased dosages

and multi-drug stacks are likewise most prominent among those who are already very familiar with steroid use, and find they are necessary in order to continue to gain or maintain muscle mass.

Dosing and Megadosing

There are many different opinions as to exactly what dosage an individual should use of any particular drug in order to elicit optimal results. Some seem to find they make exceptional gains on relatively low dosages of most steroids, while others insist they need to administer very large amounts of androgens for the proper level of bulk. While I by no means claim to have the solution for everybody, I would say that most steroids seem to work best in a particular range of dosage, and usually fall short of expectations as we go higher or lower. On the one hand we may find that going below what is considered to be a normal dosage for a specific drug will result in very poor gains being achieved, the hormone level perhaps not rising enough above normal to stimulate a considerable response. For example, 200-800mg of testosterone enanthate per week is typically sufficient for a man to receive very formidable gains, while 50-100mg may not provide very noticeable results at all (this is all common sense). On the other extreme, athletes generally find that unusually large doses (let's say 1000-2000mg per week) will provide a relatively low quality increase over that of the normal dosage range. Yes, the amount of muscle mass may be considerably more than expected with a typical dose, but this will probably not be proportionate with the gain of new body fat and water weight. The user will typically be stuck with a much more noticeable level of side effects, while receiving a poor return (as in solid muscle mass) on his money. When steroids were abundant and cheap in the 1980's, megadosing among recreational steroid users was not all that uncommon. No doubt paying \$20 per week as opposed to \$5 was not a very difficult decision to make. But today high prices will usually prevent the widespread practice of such excessive dosing, as such a cycle could cost hundreds of dollars each week. The side note to this is that one can reach an extreme level of development where year round high dosage steroid use is a necessity to maintain an anabolic state.

Cycle Duration

There are also many arguments as to how long one should stay on a steroid cycle before taking a break. Opinions range from those of cautious individuals, who are often vehement about short cycles and long off-periods, to the seriously hard-core user, who suggests year round use for optimal results. Since it is really up to the individual to choose the cycle that is best for him or her, I can only provide some general advice.

For starters, it is very important to watch your intake duration when on stronger or more toxic substances. This includes all c17 alpha alkylated orals, or high-dose cycles of easily aromatized steroids. These compounds place the most stress on your organs, and likewise should be utilized for only limited intervals (preferably less than 8 weeks). Afterwards a break of at least as much time (preferably more) should be taken to give the body ample time to rest/recover. For those who refuse to follow such advice, blood work and regular health checkups should be an absolute necessity.

When taking milder anabolics like Deca-Durabolin®, Primobolan® or Equipoise®, one might opt to take the drugs for a longer duration. This is due to the fact that these compounds do not act in an extremely dramatic manner, and instead promote a slow but consistent buildup of muscle tissue. With this understanding it is not unusual for an athlete to find a cycle of three, even four or more months, to be the most appropriate. If used for only a short duration, the individual might find the overall gains to be uninspiring.

Year round, on-all-the-time steroid use should be avoided if at all possible, as one should respect the natural hormonal balance your body strives for. The body really should be given time to regain a natural hormonal balance every so often, to ensure that there is little possibility for future problems. Although many believe the effects of these drugs to be 100% fully reversible, it is not impossible to see problems with virility, libido, etc. after the body had been overloaded with hormones for many years. The health risks associated with elevated cholesterol levels, high blood pressure or liver toxicity are important reasons the athlete should limit the duration of steroid intake.

Tapering

One of the most fundamental beliefs among steroid users is that tapering, or the practice of slowly reducing their drug dosage when discontinuing a cycle, is an absolute necessity when wishing to preserve your newly gained muscle mass. It is rare to find an athlete who does not religiously dedicate (at least) three or four weeks to a tapering schedule after every serious cycle. The belief is that the body will notice the lowering androgen level, and compensate by resuming the manufacture of testosterone. Unfortunately, you will see that this theory is, in fact,

extremely flawed. This is because in order for the production of testosterone to be fully restored, the body will really need to recognize an androgen deficit, not just a drop in steroid dosage. For example, since even one Dianabol tablet could provide the equivalent of a full day's androgen supply for the average male, tapering from five, to four, to three, etc. will accomplish relatively nothing. In the three or four weeks the athlete will spend doing this, his body is still reading "androgen overload", and will not attempt to restore the output of testosterone. This will hold true for all anabolic steroids, not just the strong androgens. Anecdotal evidence suggests that even tapering with mild anabolics such as Primobolan® or Anavar (normally thought of as mild in terms of testosterone suppression) is enough to prevent or delay a hormonal rebound.

So, if tapering is useless, what should the athlete do in order to properly discontinue a steroid cycle? The obvious answer is to pay much closer attention to ancillary drug use than tapering. The proper application of testosterone stimulating compounds like HCG, Clomid®, Nolvadex® and/or cyclofenil are the most critical, as these can greatly aid in the balancing of body hormones. [The popular methods for using all the above medications are laid out under their individual profiles.] In the few cycles I have illustrated in this section, you will notice that I have not even bothered to lower the drug dosages before the ancillary drugs are added. Simply stated, there is no need to. In my opinion, going "cold turkey" is just the most logical option.

Sample Steroid Stacks

Sample steroid stacks are provided to demonstrate common and/or effective drug combinations in use by bodybuilders. For most of these cycles, the dosages used are in the moderate range. They are intended to represent a balance of peak effectiveness with tolerable side effects, and are also designed so that they can be assembled with very basic and common black market items. For most novice steroid users, stacks like these provide more than a sufficient level of steroid for very dramatic results. Some even find that they can make substantial progress on much less. These represent only common guidelines toward typical use, and by no means are intended to be the perfect cycles for everybody. You will also notice that I have not provided cycles geared towards women. This is simply because I think women should be extremely cautious with these drugs. Those absolutely determined to use them should certainly avoid multiple drug combinations, especially as a novice to these agents.

Beginner Stacks

Deca/D-bol (Mass Builder):

Ingredients: 100 tabs Methandienone 10mg, 10ml vial Deca 300mg/mL

Comments: This is a modified version of the Deca/Dbol stack printed in the first edition. The Deca dose has been increased, to reflect the purchase of one of the newer 300mg nandrolone decanoate products. 50mg versions of this steroid are now in extremely low demand due to the influx of new Mexican veterinary steroids. The Dbol dosage has been adjusted to reflect the use of 100 tablets of a 10mg product.

	Dianabol	Deca-Durabolin®
Week1		300mg
Week2		300mg
Week3		300mg
Week4	20mg/day	300mg
Week5	20mg/day	300mg
Week6	20mg/day	300mg
Week7	20mg/day	300mg
Week8	20mg/day	300mg
Week9	20mg/day	300mg
Week10	20mg/day	300mg

Non-Toxic Oral (Lean Mass Cycle):

Ingredients: 390 Caps (13 30 cap bottles of Mexican product) Andriol, 500 Tabs 5mg Primo

Comments: By far the most costly cycle of the group, this one is provided for the individual who does not want to use needles, nor liver toxic orals. More Primo could be used, to a dosage of 100-150 mg, if available.

	Andriol	Primobolan
Week1	8 caps/day	50mg/day
Week2	8 caps/day	50mg/day
Week3	8 caps/day	50mg/day
Week4	8 caps/day	50mg/day
Week5	8 caps/day	50mg/day
Week6	8 caps/day	50mg/day
Week7	8 caps/day	50mg/day

Proviron/Deca/Winny (Cutting/Lean Mass Cycle):

Ingredients: 140 tabs of Proviron, 10ml 200mg/mL Deca, 100 tabs 10mg stanozolol

Comments: This is an extremely effective lean mass building/cutting cycle. The Proviron adds good androgen content to the nandrolone base, which often too anabolic to use on its own. The Winstrol, added later, greatly enhances the fat burning and anabolic nature of the combination.

	Proviron®	Deca	Winstrol®
Week1		200 mg	
Week2	50 mg/day	200 mg	
Week3	50 mg/day	200 mg	
Week4	50 mg/day	200 mg	
Week5	50 mg/day	200 mg	20 mg/day
Week6	50 mg/day	200 mg	20 mg/day
Week7	50 mg/day	200 mg	20 mg/day
Week8	50 mg/day	200 mg	20 mg/day
Week9	50 mg/day	200 mg	20 mg/day
Week10	50 mg/day	200 mg	20 mg/day
Week11	50 mg/day		20 mg/day

Anavar/Primo (Cutting Cycle):

Ingredients: 200 tabs 5mg oxandrolone, 14 ampules 100mg Primobolan Depot

Comments: A basic but very efficient cutting stack. This combo provides zero estrogen, and is only moderately androgenic in nature. Low side effects and solid results.

	Anavar	Primobolan Depot
Week1	20 mg/day	200 mg
Week2	20 mg/day	200 mg
Week3	20 mg/day	200 mg
Week4	20 mg/day	200 mg
Week5	20 mg/day	200 mg
Week6	20 mg/day	200 mg
Week7	20 mg/day	200 mg

Tren/Winny (Cutting Cycle):

Ingredients: 2 (10ml) bottles Trenbolone acetate 75mg/mL, 20ml injectable stanozolol.

Comments: This is a potent cutting/hardening cycle. Do not let the low 300-375mg dose fool you. These are two very active steroids, and the combination is sure to provide quite a pronounced effect.

	Trenbolone Act.	Winstrol®
Week1	150 mg	
Week2	150 mg	150 mg
Week3	150 mg	150 mg
Week4	150 mg	150 mg
Week5	225 mg	150 mg
Week6	225 mg	150 mg
Week7	225 mg	150 mg
Week8	225 mg	100 mg

Tren/Test/Deca (Mass Builder):

Ingredients: 2 (10ml) bottles Trenbolone acetate 75mg/mL, 10ml bottle 200mg/mL cypionate (or enanthate), 10ml bottle 200mg/mL Deca

Comments: This is an excellent bulking cycle based on lower priced Mexican veterinary steroids. The trenbolone helps to harden up the gains, and the use of only 200mg of testosterone and Deca should keep estrogen levels from getting too far out of hand.

	Cypionate	Trenbolone Act.	Deca
Week1	200 mg		
Week2	200 mg		
Week3	200 mg	150 mg	
Week4	200 mg	150 mg	
Week5	200 mg	150 mg	200 mg
Week6	200 mg	150 mg	200 mg
Week7	200 mg	150 mg	200 mg
Week8	200 mg	150 mg	200 mg
Week9	200 mg	150 mg	200 mg
Week10	200 mg	150 mg	200 mg
Week11		150 mg	200 mg
Week12		150 mg	200 mg
Week13			200 mg
Week14			200 mg

Equipoise/Test (Mass Builder):

Ingredients: 50ml vial Equipoise® (50mg), 10 amps Testosterone Enanthate

Comments: This is a basic testosterone and Equipoise stack. The Equipoise allows for a lower overall dosage of testosterone, without sacrificing much in terms of expected gains. Estrogen buildup should be controllable with this stack, yet still should reach a point where it is aiding in the promotion of an anabolic state. A great beginners muscle-building stack.

	Equipoise®	Test. Enanthate
Week1	250 mg	
Week2	250 mg	250 mg
Week3	250 mg	250 mg
Week4	250 mg	250 mg
Week5	250 mg	250 mg
Week6	250 mg	250 mg
Week7	250 mg	250 mg
Week8	250 mg	250 mg
Week9	250 mg	250 mg
Week10	250 mg	250 mg
Week11		250 mg

Intermediate-Advanced Stacks

Short Anadrol/Test (Mass Builder):

Ingredients: 100 tabs Anadrol 50®, 20 amps/preloads/ML of Sustanon

Comments: This is the classic Anadrol/Test stack. If you are looking for sheer mass, you are not going to find a better mix. Be warned though, estrogenic side effects are likely to be intense. It is a good idea to have Nolvadex® close by.

	Anadrol 50®	Sustanon
Week1		750 mg
Week2	2 tablets/day	750 mg
Week3	2 tablets/day	750 mg
Week4	2 tablets/day	750 mg
Week5	2 tablets/day	750 mg
Week6	2 tablets/day	750 mg
Week7	2 tablets/day	500 mg
Week8	2 tablets/day	

Super Test Cycle (Mass Builder):

Ingredients: 112 tabs Proviron, 30 ml Sustanon, 100 tabs 10mg stanozolol

Comments: This cycle is designed to maximize the level of free testosterone in the body. Proviron competitively inhibits both estrogen aromatization and testosterone to SHBG binding, and Winstrol adds to the androgen-induced lowering of binding protein levels. Gains with this stack should be leaner than the Test and Anadrol cycle, as there is less of an estrogenic component.

	Proviron®	Sustanon	Winstrol®
Week1		500 mg	
Week2	50 mg/day	1,000 mg	10 mg/day
Week3	50 mg/day	1,000 mg	10 mg/day
Week4	50 mg/day	1,000 mg	20 mg/day
Week5	50 mg/day	1,000 mg	20 mg/day
Week6	50 mg/day	1,000 mg	20 mg/day
Week7	50 mg/day	1,000 mg	20 mg/day
Week8	50 mg/day	1,000 mg	20 mg/day
Week9	50 mg/day		20 mg/day

EQ/Suspensions Stack (Lean Mass Builder):

Ingredients: 3 (10ml) vials Equipoise (200mg), 1 (20ml) vial 100mg/ml T. Suspension, 1 (20ml) vial stanozolol (50mg)

Comments: This is an excellent RAPID lean muscle-building stack. Aromatase inhibitor may be needed during the first 6 weeks, otherwise the remaining 6 (unless you are very sensitive to estrogen) should entail low enough estrogen levels to dramatically increase hardness and definition. A combination building/cutting cycle.

	Equipoise	T. Suspension	Winstrol®
Week1	600 mg	100 mg EOD	
Week2	600 mg	100 mg EOD	
Week3	600 mg	100 mg EOD	
Week4	600 mg	100 mg EOD	
Week5	600 mg	100 mg EOD	
Week6	600 mg	100 mg EOD	
Week7	600 mg		50 mg EOD
Week8	600 mg		50 mg EOD
Week9	600 mg		50 mg EOD
Week10	600 mg		50 mg EOD
Week11			50 mg EOD
Week12			50 mg EOD

15-week Mass Builder:

Ingredients: 5 (10ml) bottles 250mg/ml T. cypionate, 2 (10ml) bottles 100mg/mL Durabolin, 300 5mg tabs stanozolol

Comments: This is an excellent lean bulking cycle, with only periodic use of c-17 alpha alkylated orals. Durabolin serves as a bridge between both treatment periods, giving the liver time to detoxify. This cycle pushes the limits of growth, but does so without pushing the limits of safety.

	Cypionate	Dbol	Durabolin	Winstrol
Week1	750 mg	40 mg		
Week2	750 mg	40 mg		
Week3	750 mg	40 mg		
Week4	750 mg	40 mg		
Week5	750 mg	40 mg		
Week6	750 mg		400 mg	
Week7	750 mg		400 mg	
Week8	750 mg		400 mg	
Week9	750 mg		400 mg	
Week10	750 mg		400 mg	
Week11	750 mg			40 mg
Week12	750 mg			40 mg
Week13	750 mg			40 mg
Week14	750 mg			40 mg
Week15	750 mg			40 mg

15-Week Cutting Stack:

Ingredients: 2 (10ml) bottle 200mg Equipoise, 200 tabs Proviron, 150 IU HGH, 420-640 tabs clen, 315 tabs Zaditen

Comments: This is an extremely potent cutting stack. Some may find a need to add in small doses of T-3. However, most will find the low GH dose and thermogenic adjunct products to work excellent for cutting alone. EQ is the only aromatizable steroid used, and adds little estrogen when accompanies by Proviron to inhibit aromatase.

	Equipoise	Proviron	HGH	Clen	Zaditen
Week1	400 mg	50 mg/day	1 IU/day	2 tabs/day	3 tabs/day
Week2	400 mg	50 mg/day	1 IU/day	3 tabs/day	3 tabs/day
Week3	400 mg	50 mg/day	1 IU/day	4 tabs/day	3 tabs/day
Week4	400 mg	50 mg/day	1 IU/day	4 -6 tabs/day	3 tabs/day
Week5	400 mg	50 mg/day	1 IU/day	4 -6 tabs/day	3 tabs/day
Week6	400 mg	50 mg/day	1 IU/day	4 -6 tabs/day	3 tabs/day
Week7	400 mg	50 mg/day	1 IU/day	4 -6 tabs/day	3 tabs/day
Week8	400 mg	50 mg/day	2 IU/day	4 -6 tabs/day	3 tabs/day
Week9	400 mg	50 mg/day	2 IU/day	4 -6 tabs/day	3 tabs/day
Week10	400 mg	50 mg/day	2 IU/day	4 -6 tabs/day	3 tabs/day
Week11		50 mg/day	2 IU/day	4 -6 tabs/day	3 tabs/day
Week12		50 mg/day	2 IU/day	4 -6 tabs/day	3 tabs/day
Week13		50 mg/day	2 IU/day	4 -6 tabs/day	3 tabs/day
Week14		50 mg/day	2 IU/day	4 -6 tabs/day	3 tabs/day
Week15		50 mg/day	2 IU/day	4 -6 tabs/day	3 tabs/day

22-Week Super-Blitz Lean Mass Cycle:

Ingredients: 5 (10ml) bottles 100mg T. Propionate, 48 amps Primobolan, 84 tabs Anadrol, 5 (10ml) bottles 100mg Durabolin, 160 tabs (10mg) dbol.

Comments: An excellent half-year lean-building stack. Focuses on the periodic use of c-17alpha alkylated orals, bridged with injectable compounds, to minimize chance for liver toxicity.

	T. Propionate	Trenbolone	Anadrol	Primobolan	Durabolin	Dbol
Week1	400mg		100 mg/day			
Week2	400mg		100 mg/day			
Week3	400mg		100 mg/day			
Week4	400mg		100 mg/day			
Week5	400mg		100 mg/day			
Week6	400mg		100 mg/day			
Week7		225 mg		400mg		
Week8		225 mg		400mg		
Week9		225 mg		400mg		
Week10		225 mg		400mg		
Week11		225 mg		400mg		
Week12		225 mg		400mg		
Week13					400mg	40 mg/day
Week14					400mg	40 mg/day
Week15					400mg	40 mg/day
Week16					400mg	40 mg/day
Week17					400mg	40 mg/day
Week18					400mg	40 mg/day
Week19	400mg	225 mg		400mg		
Week20	400mg	225 mg		400mg		
Week21	400mg	225 mg		400mg		
Week22	400mg	225 mg		400mg		
Week23	400mg	225 mg		400mg		
Week24	400mg	225 mg		400mg		

17 Week Pre-Contest Dual Phase (Pro Level)

The following is a 2-phase cycle used by an IFBB professional bodybuilder. He used this cycle leading up to a recent show, in which he placed in the top 5. The total use duration was 17 weeks, or approximately 4 months. This cycle dispels the myth that pros all need to take massive doses of steroids, or exotic and expensive compounds like IGF-1, to be competitive. The 1-2 gram per week range in this program is formidable, but not unreasonable given the level of performance of the athlete. The most exotic drugs taken in this 2-part stack are also insulin and GH, which are "basic" bodybuilding drugs by any standard. It does, however, make use of c-17 alpha alkylated compounds for prolonged periods of time, which does legitimately add some level of risk. This bodybuilder was smart enough to have regular health checkups during his cycles, and tried to mitigate the negative cardiovascular side effects as best he could with diet and exercise. Although no adverse health effects were reported, it should be noted the pro level cycles are especially not recommended for beginners, and are definitely "use at your own risk" kind of programs.

Phase I/Bulking

Week	Enanthate	Deca	Dbol	Equipoise	GH	Insulin	Nolvadex
1	1000mg	500mg	50mg/d		4IU/3IU	14IU	20mg/d
2	1000mg	500mg	50mg/d		4IU/3IU	14IU	20mg/d
3	750mg	500mg	50mg/d		4IU/3IU	14IU	20mg/d
4	750mg	500mg	50mg/d		4IU/3IU	14IU	20mg/d
5	750mg		50mg/d	500mg	4IU/3IU	14IU	20mg/d
6	750mg		50mg/d	500mg	4IU/3IU	14IU	20mg/d
7	500mg		50mg/d	500mg	4IU/3IU	14IU	20mg/d
8	500mg			500mg	4IU/3IU	14IU	20mg/d

Insulin (Humalog) is taken 7IU in the morning and 7IU before training, with a loading of carbohydrates. Growth hormone is taken 4IU on training days, 3IU for non-training days.

Phase II/Cutting

Week	Propionate	Deca	Tren	Winstrol	Halotestin	Proviron	Arimidex
1	100mg/d	500mg				75mg/d	
2	100mg/d	500mg				75mg/d	
3	100mg/d	500mg				75mg/d	
4	100mg/d	500mg				75mg/d	
5	100mg/d	500mg				75mg/d	
6			225 mg	100mg/EOD	20mg/d		
7			225 mg	100mg/EOD	20mg/d		
8			225 mg	100mg/EOD	20mg/d		1tab/d
9			225 mg	100mg/EOD	20mg/d		1tab/d

Diet begins 7 weeks out from competition. Sodium is not cut. GH is added through much of the cutting phase at a dose of 2IU per day. Injectable Lasix is added the last 3 days, at a dose of 1 ampule twice daily. Arimidex is taken the last 2 weeks, at a dose of 1 tablet per day. Dyazide is taken 1 tablet twice during the last day (competition).

12-Week Serious-Bulk (Pro Level):

Comments: This pro-level bulking stack uses a formidable injectable base (mean dose of 1gram per week), a rotation of high-dosed orals, and the new IGF-1 analog (IGF-1 Long R3). This is an extremely effective program, but again is not for novice bodybuilders. Arimidex or Nolvadex are alternated to combat estrogenic side effects, depending on the individual's sensitivity to them. Nolvadex is preferred to help keep HDL (good) cholesterol in check (at least from dropping into the toilet completely), but may not be strong enough with this much testosterone, boldenone and dianabol. The latter 2/3rds of the cycle should be somewhat less estrogenic due to the discontinuance of dianabol at week 5, so some may opt to start with Arimidex only. Insulin is also added in most cases, as a post-training anabolic (with carbohydrate loading).

	Sustanon	Dianabol	Primobolan Oral	IGF-1r3	Equipoise	Winstrol
Week1	1,000mg	50mg/d			600mg/week	
Week2	1,000mg	50mg/d			600mg/week	
Week3	1,000mg	50mg/d			600mg/week	
Week4	1,000mg	50mg/d			600mg/week	
Week5	1,000mg		150mg/day		600mg/week	
Week6	1,000mg		150mg/day	30mcg/d	600mg/week	
Week7	1,000mg		150mg/day	30mcg/d	600mg/week	
Week8	1,000mg		150mg/day	30mcg/d	600mg/week	
Week9	1,000mg			50mcg/d	600mg/week	50mg/d
Week10	1,000mg			50mcg/d	600mg/week	50mg/d
Week11	1,000mg			50mcg/d	600mg/week	50mg/d
Week12				50mcg/d		50mg/d

12-Week Anabolic Rotation Cycle. Lean Mass and Cuts (Pro Level):

Comments: This pro-level cutting cycle was used for before a recent competition. This particular bodybuilder likes to use clenbuterol on and off, for 4 weeks at a time. He also felt that he didn't like to be on a lot of GH around show time, and preferred to use only 1IU during the last 5 weeks leading up to a show. When we examine the cycle we see no estrogenic steroid being used past week 6. To spite this, the bodybuilder would take an additional tablet of arimidex daily for the last half of the cycle. 100mg of injectable Winstrol is used every third day during weeks 7-8, and every other day during weeks 9-12.

	Primobolan	Parabolan	T. Propionate	Masteron	Winstrol	Clenbuterol	HGH
Week1	500mg	300mg	400mg			6tabs/d	2IU/d
Week2	500mg	300mg	400mg			6tabs/d	2IU/d
Week3	500mg	300mg	400mg			6tabs/d	2IU/d
Week4	500mg	300mg	400mg			6tabs/d	2IU/d
Week5	500mg	300mg	400mg				2IU/d
Week6	500mg	300mg	400mg				2IU/d
Week7	500mg			300mg	100mg/ETD		2IU/d
Week8	500mg			300mg	100mg/ETD		1IU/d
Week9	500mg			300mg	100mg/EOD	6tabs/d	1IU/d
Week10	500mg			300mg	100mg/EOD	6tabs/d	1IU/d
Week11	500mg			300mg	100mg/EOD	6tabs/d	1IU/d
Week12	500mg			300mg	100mg/EOD	6tabs/d	1IU/d

Andreas Munzer's Last Cycle:

Comments: This cycle was used leading up to the death of IFBB professional bodybuilder Andreas Munzer. The German magazine Der Spiegel first published Munzer's program shortly after his death, which was reportedly obtained by a source close to him. The death of Andreas Munzer was a shock to the bodybuilding world, and demonstrated well that the precontest regimen of the competitive bodybuilder, which can include heavy drug use, severe calorie and fluid restriction, and marked dehydration, can be a very dangerous undertaking. This is not to suggest that a cycle such as this is "normal" in the IFBB ranks. If you review the cumulative drug intake, you will see that Andreas Munzer was using staggeringly high dosages and a wide variety of drugs. Most professional bodybuilders would not use such high levels of steroids, however, there are indeed some that do. This cycle is too large to place into one chart, so it is divided into segments. It is provided for informational purposes only, and given the circumstances should not be attempted by anyone.

Other things of interest include the fact that Captagon is a trade name for fenethylamine. This is an amphetamine-type stimulant. Captagon is a schedule I drug in the U.S., placed under the tightest controls and classified as a drug with no legitimate medical use. Munzer also reportedly used Cytadren in his contest preparations. There has been a lot of speculation that Cytadren, combined with amphetamines and severe dehydration, were key factors in his death. Since no official autopsy was released, we do not know the exact pathology of his death. With the amount of drugs he used, I doubt the exact cause is even possible to pinpoint.

Weeks 1-10:

Ephedrine
Aspirin
Clenbuterol
Valium
Captagon
Cytomel

Weeks 1-5:

500mg daily	Testosterone Enanthate
152mg daily	Parabolan
150mg daily	Dianabol
150mg daily	Halotestin
20IU daily	HGH
20IU daily	Insulin

Weeks 6-8:

300mg daily	Masteron
152mg daily	Parabolan
250mg daily	Winstrol Tab
150mg daily	Halotestin
50mg daily	Winstrol Inj.
24IU daily	HGH

Weeks 9-10:

200mg daily	Masteron
100mg daily	Winstrol Inj.
200mg daily	Halotestin
400mg daily	Winstrol Tab
24IU daily	HGH
Insulin - daily	
IGF-1 - daily	

Days 1-3 leading up to show:

Aldactone, Lasix to cut water.

Giving the Injection

All anabolic/androgenic steroid solutions were designed for deep intramuscular injection. The most common sites of injection are the upper outer quadrant of gluteus (buttock) and the outer side of the mid to upper thigh. This provides an ample area of thick muscle, facilitating the goal of a deep (typically 1 to 1 ½ inch) deposit of the steroid solution into muscle tissue. Occasionally these solutions are also injected into smaller muscles such as the deltoid, biceps or triceps.

The chosen site is not crucial, although there are some things to consider in deciding. For starters, the gluteus and thigh muscles are the best for larger injection volumes. They are sufficiently large in size that a 3ml deposit will not be extremely irritating. When using the shoulders and other small muscles, 1-1 ½ ml is the typical limit for comfort. Administering more may result in a deep soreness and possibly swelling to the muscle. The upper outer gluteus also has the lowest pain sensitivity to needle penetration, and is likewise an easy site to start with. The thickness and level of blood circulation given to a site also affect the rate of steroid release, although this does not amount to a great deal of variation. Technically a steroid deposit will remain in the gluteus muscle for the longest period of time, release slightly faster in the thigh or shoulder (most rapid). Over the course of a cycle the difference would probably not be noticeable to the athlete.

SYRINGE/NEEDLE SIZE

The gauge represents the size (diameter) of a needle. The larger the number, the finer the needle is in thickness. This measurement bears no relation to the size (capacity) of the syringe, which in many cases is sold separately from the needle. The type of needle used for steroid injections varies depending on the type/viscosity of solution (water/oil) and site of injection, ranging from the standard deep intramuscular oil needles of 21-22 gauge to a fine insulin needle of 27-28 gauge. Below are a few stock needle/syringe combinations and their corresponding use with anabolic/androgenic steroids.

3ml syringe, 22-gauge needle, 1 ½ inch in length

3ml syringe, 23-gauge needle, 1 inch in length

Standard needle sizes used for the injection of oil based compounds in the gluteus or thigh. Here you should limit injection volume to 3ml. Occasionally this size needle is also used for water-based compounds that contain steroid in the form of unusually large particles. For example, Winstrol-V and some Australian veterinary testosterone suspensions will jam in a needle any smaller. Having to use such a large size makes repeated injections extremely uncomfortable.

3 ml syringe, 25-gauge needle, 5/8 inch in length

Often referred to as a vitamin needle, this is a standard sized needle used for the thigh or deltoid injection of oil-based compounds. Water-based steroids are also commonly injection at the same sites with this needle, but solutions with finely ground steroid (Stanazolic and Winstrol from Zambon in Spain, for example) are more comfortably given with an insulin needle.

1ml syringe, 27-gauge needle, ½ inch in length

1ml syringe, 28-gauge needle, ½ inch in length

1ml syringe, 29-gauge needle, ½ inch in length

These are standard insulin needles used by athletes for the injection of water-based steroids, HCG, insulin, and growth hormone into smaller muscles such as the deltoid, biceps or triceps. These are also the only sized needles comfortable to use for the subcutaneous injection of insulin and growth hormone. In desperate situations insulin needles are sometimes also used for the injection of oil-based compounds in the deltoid. While extremely tedious, there is no immediate danger with such a practice provided normal protocol were followed.

Injection Protocol

1. Sanitize the intended area of injection with an alcohol swab, and wash hands thoroughly.
2. If using a multiple-dose vial, clean the stopper with alcohol also.
3. Remove the syringe's packaging, and fill with an equal amount of air in comparison to the intended dose. Inject the air into the vial, a practice that keeps a balance of internal/external pressure (making future withdrawal easier).
4. Draw solution into the syringe, and remove needle from the vial.
5. Holding it needle-side-upright, tap the side of the syringe, and expel any extra air bubbles (tiny bubbles are not a danger to health, but this is still correct practice).
6. Stretch the skin over the site of injection with the thumb and forefinger of your free hand, and penetrate the muscle with the needle.
7. Pull back on the stopper to make sure the syringe does not fill with blood. Should blood be present, the needle should be removed, and reinserted into another area (to avoid injecting into a blood vessel).
8. Press the stopper down firmly and steadily until all of the oil has been injected.
9. Remove the needle, and press down on the injection site with an alcohol swab.
10. Repackage and dispose of the needle. If it must be reused, it can be stored in the freezer to minimize contamination.

Chemical Analysis Report

Set ID # 411004-A

Set Description : 3 lots of tablets
Date Received : 11/01/04
Date(s) Analyzed : 11/15/04
Date Reported : 11/17/04

Company Name : Molecular Nutrition
Directed To : William Llewellyn
Address : 5500 Military Trail #308
Jupiter, FL 33458

Sample Preparation and Analysis Conditions :

For methandrostenolone, a weighed portion of a composite of ground tablets from each sample was dissolved/extracted in acetonitrile, filtered, and then analyzed under the following instrumental conditions:

Chromatograph : High performance liquid chromatograph (Hewlett Packard Model 1090 II / L)
Column : Synergi Hydro-RP, 150 x 3.0mm, 4µm, 80Å
Detector : Photodiode array, scanning from 190 to 600 nm; quantitation at 245 nm

Analytical Results

Reporting results to three significant figures is for statistical evaluation only
and is not intended to be an indication of analytical precision

Sample Identification		Tablets ave. wt. g	Methandrostenolone	
			mg/g	mg/tab
Laboratory ID# Client ID#	411004-1 Metavet QV Tablets Lot# QVTMTA 005	0.117	89.7	10.5
Laboratory ID# Client ID#	411004-2 Denkall D Bol Tablets Lot# TBD 012	0.116	83.6	9.70
Laboratory ID# Client ID#	411004-3 Reforvit Simple Tablets Lot# 1290603	0.117	187.	21.9

Analyzed _____ Release Authorized _____
By _____ By _____ Date _____

Page 1 of 1

The results provided in this report represent to the fullest extent possible under the criteria for good faith and professionalism in the field of analytical chemistry, true and factual data that are provided for the sole use of the addressee. Any use of the report or its contents except under the guidelines of this expressed intent is not condoned or permitted.

Steroid Lab Test Results

If we have learned anything over the past five or ten years, it is that counterfeit steroid manufacturers all around the world are working very hard to trick you out of money. The fake drugs of the 80's and 90's, with poorly printed labels, improperly sealed bottles, and obvious "basement-made" looks, are almost entirely things of the past. Nowadays, surreptitious manufacturers are investing tens, if not hundreds, of thousands of dollars on equipment that will allow them to duplicate their particular drugs of choice with previously unseen accuracy. In many cases they are using things like ampule sealing equipment, foil/plastic tablet sealers, even investing in custom pill dyes so they may duplicate a product down to its own unique tablet markings. Some of the fakes today are nearly impossible to spot if you do not know what to look for. I do the best job I can to keep you informed by staying up on global product availability, and comparing minute features of each new box I receive to known legitimate originals in an effort to spot inconsistencies. However, it is a battle that nobody, not even myself, is equipped to win every single time. The only true way of being 100% sure of the steroid content of your drug product is to have it analyzed and quantified in a laboratory. This section deals with exactly that.

Lab analysis also allows us to keep on top of which of the legitimate steroid manufacturers are truly honest. Mexico, for example, is the home of literally dozens of steroid manufacturing companies, and unfortunately is an area of the world where drug makers are much less actively scrutinized by government agencies, particularly in the field of veterinary medicine. For years we have been hearing reports of underdosing and underfilling from various Mexican veterinary manufacturers. This is probably owed to the fact that there is a very competitive market for steroids, and shaving a little off of your manufacturing costs can make a huge difference in the amount of profit brought home at the end of the day. Lately things have been changing, and more often than not companies are correctly dosing their steroid products. But things are still not perfect, as you will see. In an effort to help guide you to some of the better steroid makers in this and other countries I have, likewise, included this section of compiled independent lab analysis results.

The preceding page shows an actual report sheet on three anabolic steroid products I had sent in for analysis. All tests in this section were conducted by San Rafael Chemical Services in Utah, one of the most well known laboratories for anabolic steroid testing in the United States. For the sake of space I have included only the one report. For the rest I will display the results panel only, followed by a description of what the particular drug product was supposed to contain. I have sorted them by specific drug. Obviously, there is no guarantee even if you have one of the steroids listed that your lot contains the same amount of drug as was reported here. But, at the very least, it will allow you to take an up close look at what some of these companies are putting out, and perhaps may even change your mind as to what particular brand you will be shopping for next time.

Anavar (oxandrolone)

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Oxandrolone	SPA (Milano)	N/a	2.5mg/tab	2.22mg

Comments: Italian Export version.

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Oxanabol	British Dragon	MFG: 08 Mar 2004	10mg/tab	7.25mg

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
GS Anavar	Generic Supplements	261323	5mg/tab	4.33mg

Comments: Underground product, of European Origin.

Anadrol (oxymetholone)

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Oxybolone	Geneparm	N/a	50mg/tab	51.3mg

Clenbuterol

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Clenbuterol	Generic Supplements	261323	.04mg/tab	.0473mg

Comments: Underground product, of European Origin.

Deca-Durabolin (nandrolone decanoate)

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Deca-Durabolin	Organon	93201 B	50mg/mL	56.1mg/mL

Comments: This is an ampule of Organon Deca-Durabolin from Egypt.

Durabolin (nandrolone phenylpropionate)

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Nandrobolin	Luoyang Pharm	L04084	100mg/mL	112mg/mL

Dianabol (methandrostenolone)

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Metavet QV	Quality Vet	QVTMTA 005	10mg/tab	10.5mg

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
D Bol	Denkall	TBD 012	10mg/tab	9.7mg

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Reforvit Simple	Loeffler	1290603	25mg/tab	21.9mg

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Dianabol Inj	Salud	SA4F020	25mg/mL	.187mg/mL

Comments: This test was a follow up from last year, shown below. There was barely a trace this time around, however.

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Dianabol Inj	Salud	SA2B006	25mg/mL	20.3 mg/mL

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Dianabol Tab	Salud	SA2D009	10 mg tab	8.84 mg

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Reforvit-B	Loeffler	1320702	25mg/mL	24.2 mg/mL

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Reforvit-B	Loeffler	1320702	25mg/mL	13.1 mg/mL

Comments: The above two samples represent an unusual situation. The bottom was sent in and tested for Anabolics 2004. One year later I ordered a second vial from the same supplier. The lot number was the same as the year before, but the result was significantly better than the first. I have no explanation for why one bottle would be so different from another of the same lot.

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Methandrostenolone	Bioreactor	020201	5mg/tab	4.49mg

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Methandrostenolone	Generic Supplements	261323	10mg/tab	9.75mg

Equipoise (boldenone undecylenate)

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Bold QV 200	Quality Vet	QVB 013	200mg/mL	198mg/mL

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Ultragan 100	Denkall	UB11	100mg/mL	106mg/mL

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Equi-gan	Tornel	170	50mg/mL	56.2mg/mL

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Equipoise	Fort Dodge	TL0203109	50mg/mL	53.9mg/mL

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Boldabol	British Dragon	02 2009	200mg/mL	132mg/mL

Masteron (drostanolone propionate)

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Mastabol	British Dragon	MAN: 02 2004	50mg/mL	38.7mg/mL

Primobolan Depot (methenolone enanthate)

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Primobol	British Dragon	05 2009	100mg/mL	154mg/mL

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Primobolan Depot	Generic Supplements	261324	100mg/mL	95.3mg/mL

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Metabolin	Luoyang Pharm	L04075	100mg/mL	92.9mg/mL

Sustanon 250

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Sustanon 250	Nile	093104	250mg/mL	224.2mg/mL

Testosterone cypionate

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Cypiotest	Denkall	CYP 004	250mg/mL	238mg/mL

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Teston QV	Quality Vet	QV 010	200mg/mL	166mg/mL

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Anabolic TL	SYD Group	53902	200mg/mL	187mg/mL

Testosterone Enanthate

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Testosterone Enanthate	Norma Hellas	0403015	250mg/mL	278mg/mL

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Testosterone Enanthate	Generic Supplements	264323	250mg/mL	304mg/mL

Comments: Underground product, of European Origin.

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Testosteronum Prolongatum	Jelfa	10402	100mg/mL	140mg/mL

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Testosteronum Prolongatum	Jelfa	X10403	100mg/mL	139mg/mL

Comments: The above two samples are of testosterone enanthate, from Jelfa in Poland. Both tested out significantly overdosed.

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Testosterone 200 Depot	Tornel	181MAY06	200 mg/mL	160 mg/mL

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Testosteron-Depo	Galenika	3850	250mg/mL	264mg/mL

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Testosteron-Depo	Galenika	0020	250 mg/mL	179 mg/mL

Comments: The above two samples are of Galenika's Testosterone Depot from Serbia. The bottom sample was taken last year, and published in Anabolics 2004. The top sample was sent in recently, and reflects a great improvement over the first test.

Testosterone propionate

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Testone-E	MISR	20198	25mg/mL	23.2mg/mL

Comments: This is a testosterone product from MISR in Egypt.

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Testosterone Propionate	Generic Pharma	N/a	100mg/mL	98.4mg/mL

Comments: Underground product, of European Origin.

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Testopro L/A	Loeffler	5701	250mg/mL	133 mg/mL

Comments: Product was significantly underdosed.

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Testosterona 100	Brovel	3102	100mg/mL	71.9mg/mL

Trenbolone acetate

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Trenabol	British Dragon	03 2003	100mg/mL	87.5mg/mL

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Trenbolone Acetate	Generic Supplements	261323	100mg/mL	91.9mg/mL

Comments: Underground product, of European Origin.

Product Name	Manufacturer	Lot Number	Label Claim	Actual Result
Finaject	Australian Pacific	113	100mg/mL	120mg/mL

Comments: Underground product, of European Origin.

Paper Steroids

These are U.S. Customs' worst nightmare: Oral anabolic steroids that are sold in sheets of paper instead of the standard dosage units (pills and capsules) used for these drugs. I believe the idea originated from Dan Duchaine, and it is both simple and ingenious. The main point of interest is that these sheets of paper are easily mailed in regular envelopes, so as to attract little attention from the federal agents that screen international mail shipments. Let's face it; customs lacks the capacity to open most of the packages that are sent to this country from around the world. They are totally lost when it comes to being able to effectively deal with regular letters that contain steroids in sheets of paper.

The manufacturing process works like this. A steroid compound is mixed with alcohol, which is an excellent solvent for steroid hormones. The dissolved solution is placed in a flat tray, and a sheet of blotter paper is placed on it to absorb the liquid. We now have a sheet of blotter paper that is soaked in alcohol and steroid. Now if you leave it out to sit, the alcohol will evaporate pretty quickly, leaving the steroid behind in the process. The hormone is going to be left distributed throughout the blotter sheet, which is now officially serving as the drug carrier. The blotter sheet is usually made so that it is divided into a grid (typically 50 or 100 squares), with each edible square carrying a measured dose of steroid. This idea is actually used, routinely, in a laboratory setting, where you don't always have access to finished tablets or capsules. It is simply being exploited here for a very different purpose. Lab tests on PaperVar confirm the product contains active oxandrolone, however they do note some inconsistencies in dosing from one square to the next. This is likely due to some inherent imperfections in the process, as it is probably much harder to control for error or outside interference than when making tablets or capsules.

Currently PaperRoids are available in the following forms:

PaperVar	oxandrolone	10mg
PaperBol	methandrostenolone	10mg
PaperStrol	stanozolol	10mg
PaperDrol	oxymetholone	50mg

Feedback on the paper products, at least those from the main manufacturer that I have been in contact with, has been nothing short of remarkable. People are raving about these steroids, probably because they work as expected, and are so easy to get in the mail. This means a lot less anxiety for many customers, who would normally spend days worrying that their latest steroid order might get snagged in Customs (and their ass arrested for the attempt). Running down a current price sheet, we find that these products are also fairly affordable. The Dianabol and Winstrol version tend to run from about \$.50 to \$1.00 per dose, while the Anavar and Anadrol run about \$2-\$3 each. You'll pay about the same price for commercial versions of these steroids anyway, not to mention the added value in being able to avoid another lost shipment.

The current major manufacturer of these products is reporting an extremely high success rate in their mailings. According to them, 95% of the paper products sent from Thailand are making it to customers, while every item sent from the U.K. so far has arrived without a single seizure by customs. Other underground companies have started to follow suit by manufacturing their own paper products, probably owing to the fact that the design is so easy to copy, and the technology is currently in high demand. One manufacturer has even started making something they call a Flexi-Tab, which is more rigid, and less devious in appearance. I was able to see a sample of this recently, and was quite impressed. I expect to see a lot more of the standard blotter sheet "PaperRoids", as well as the new "Flexi-Tabs", in the future.

Underground Manufacturers

As the name would indicate, an underground steroid manufacturer is an operation that manufactures steroids specifically for sale to athletes on the black market, and not through legitimate pharmaceutical distribution channels. These firms are unlicensed, unregulated, and operate in a completely clandestine manner. An underground maker is different from a counterfeit steroid manufacturer only in that these operations *usually* produce real steroid products. They are not operating to outright steal money from customers with totally worthless products. Many clearly are trying to focus on building good reputations in the marketplace, operating for the most part on a small scale, and catering to tight-knit circles of Internet savvy steroid shoppers.

There has been an amazing explosion of underground steroid manufacturing companies in the past half decade. The Internet, a communications medium that has been able to put bodybuilders in the West in ready contact with bulk raw steroid manufacturers in the East, has no doubt fueled this. It is now quite easy to find places to sell you bulk raw materials, in multi-kilogram amounts. The raw steroid power is usually quite cheap given the amount of final product each kilo can produce. Bottling and encapsulating are usually done with inexpensive low volume manually operated machinery. Let's do a little math. 1kg of methandrostenolone will produce 2,000 bottles with 100 5mg tablets in each. The cost will come to roughly \$2 per bottle for the actual steroid. Clearly there are very high profits to be made for anyone willing to do some "basement bottling". Judging by the sheer number of these firms in operation right now, it seems that everyone wants to run an underground steroid manufacturing business.

Below is a sample price list from a raw materials supplier in China. Note the high cost for drugs like oxandrolone, methenolone and trenbolone. We can see counterfeiters rarely use these actual steroids in their products.

Ethylestrenol	\$9,900/kg
Methenolone	\$18,000/kg
Methandriol	\$2,100/kg
Methandrostenolone	\$4,000/kg
Methyltestosterone	\$1,150/kg
Nandrolone phenylpropionate	\$4,000/kg
Nandrolone decanoate	\$4,800/kg
Oxandrolone	\$27,000/kg
Oxymetholone	\$4,000/kg
Stanozolol	\$4,600/kg
Testosterone	\$1,900/kg
Testosterone Undecanoate	\$3,000/kg
Testosterone Propionate	\$2,500/kg
Trenbolone	\$23,000/kg

There are things that must be taken into consideration when thinking about buying an underground steroid product. First, you need to remember that you never truly know what you are getting. These operations are clandestine, and nobody is looking over their shoulders making sure things are up to code. Second, almost none of them are making their drugs in a truly sterile environment either. Most, in fact, are probably made in someone's house. The only real exception this may be a handful of larger companies (such as International Pharmaceuticals, Eurochem, and Generic Supplements), which have their product manufactured in a sterile (pharmaceutical quality) laboratories or contract manufacturers. IP, for example, has a long and solid history, and have been operating for decades. But given their nature as an illegal underground company, even the sterility and quality of their products cannot be verified all the time. You can ultimately never be sure your product is clean, or accurately dosed, if you are buying an underground version.

Even with the given risks and uncertainties, many bodybuilders still prefer to shop with underground companies, perhaps finding attraction in cheaper prices, higher doses, or easier availability. For whatever reason, these companies do exist, and many people do buy their products regularly. In the last edition, I tried to start keeping somewhat of a list of these operations, however, I quickly found that an exercise in futility. Due to the entirely secretive and unregulated nature of these companies, they are simply too elusive to keep tabs on. Half of the manufacturers listed in the last book have already gone out of business, and some of the rest have seen their own on and off issues with quality controls. Given the illegitimate nature of this market, I have decided the best thing to do was to simply advise on the potential risks associated with underground drugs, and refrain from rating these firms individually. Instead, I will display photographs, and when possible run lab tests. I believe the information presented in the lab testing section will be of much greater value than vague recommendations.

Counterfeit Steroids

Counterfeit steroids are products that are made by illegal underground operations, which resemble the packaging of legitimate steroid products. They are made specifically for sale to bodybuilders on the black market. Obviously we cannot verify the contents of these products, as real drug companies do not make them. Sometimes the counterfeit producers use real steroids in their preparations, but most often they do not. One must be aware that money should be a secondary concern when coping with the existence of counterfeit pharmaceuticals. Today we take for granted that the drug products we purchase are manufactured in a sterile environment, with filtered air that is free of contaminants. The illicit producers do not provide us this safety. Money is the issue to them, not safety. Injectables are especially of concern, as this method of delivery bypasses most of your natural defenses. Bacteria or toxins could prove very harmful if injected into your body. It is not uncommon to hear of stories in which an athlete had become very ill from using a counterfeit product. One must stay educated to protect not only money but also health.

Counterfeit steroids remain a significant problem on the black market. When you have product in high demand and limited availability, the market will usually fight to exist and meet demand. If need be and possible, this will include counterfeiting legitimate products. With steroids, this is a major problem because fakes are easily made, and the validity of each product difficult to ascertain without using it for a period of time. I would, however, like to report that things have been changing over the years in my observation, in terms of the magnitude of this problem. I think fake steroids became most problematic after two important events in the history of these compounds. The first was the removal of Dianabol in the late 1980's. This was an extremely popular product, and taking it off the market led many to scramble to cash in on the demand by bottling fake Dbol. From this point forward the term "counterfeit steroid" became woven into the fabric of the black market. I think the true counterfeit explosion occurred in the early 90's, specifically right after these drugs became controlled substances in early 1991. Before this, domestic anabolics were easily diverted toward illicit avenues. I remember seeing a ton of legitimate American pharmaceuticals in 1990 and 1991. Steris suspension, cyp, Deca, it was everywhere. But a year or two later, these had all but dried up and were replaced with loads of copies. Steris clones were everywhere, while the real thing was becoming almost impossible to obtain.

I think the mid to late 1990's was a transition time for the black market. Our domestic avenues for steroids were cut off, and it would take some time to solidify new sources for these drugs. This period of time was a perfect breeding ground for counterfeiters. If the drugs couldn't be located easily, many simply just made passable copies. Sure, as with any industry most people did business honestly and worked hard to find, even import legitimate products. But there is always a bad segment out there, and at that point in time they seemed to actually thrive on the manufacture of counterfeit goods. But we are in a new time now. The black market no longer needs to carry counterfeit products in order to meet an otherwise impossible demand. New, reliable avenues for these drugs have opened up. Most notably, our neighbor to the south, Mexico, has emerged as a world leader in steroid manufacture and sales. As a result, the U.S. black market is now bursting with Mexican products. I think the actual percentage of fakes on the market is much smaller today than 10 years ago, and your odds for buying a legitimate product are very good. Do not confuse me with saying that fakes have gone away. Far from it. They are still a big problem today, as they probably always will be.

If you do not obtain steroids via a doctor or N. American pharmacy, it is my hope this book will provide you with the skills you need to make intelligent purchases. The current situation is not that grim. Counterfeit marketers thrive on ignorance. Most people make purchases with little or no research beforehand, and that is what the counterfeiters are relying on. You will quickly realize that a little bit of research will go a long way when shopping for anabolics, as an educated consumer is much harder to swindle.

THE BASICS

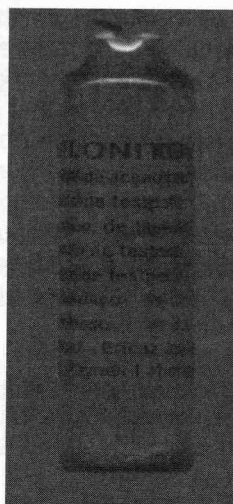
This section deals with the most general attributes to look for when attempting to spot counterfeit anabolics. Before starting, it is important to stress the fact that underground manufacturers are much more advanced today than they were 15 years ago. The fakes of today are generally much better looking, and harder to recognize than they used to be. The methods mentioned in this section are mostly inadequate for counterfeit identification, as only the sloppiest of fakes will fail here. Marketers have recognized some years back that in order to be competitive, (and remain in business) they had to update equipment, and put together a nicer item. So, do not be overconfident if your items pass the following tests.

MATCHING LABELS:

15 years ago, many fakes were put together as the below suspension was. The counterfeiter used the same label for both the box and vial to save time and money. In general, be suspicious of any box that carries a sticker instead of print. There are only a rare few exceptions to this rule, and they tend to be products of Eastern or South East Asian origin.

**UNUSUAL AMPULES:**

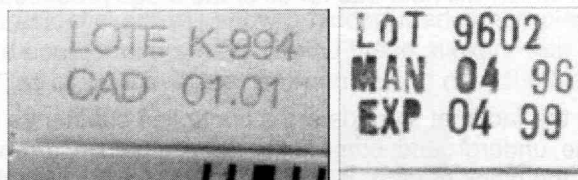
When underground manufacturers first began to duplicate ampules, many were quite unusual in appearance. Some leaked, contained air bubbles in the glass, or uneven. Some were so crooked, that they would fall over should you try to stand them on a desk. One would want to make sure all ampules are consistent in size and shape, do not leak, and look professional in appearance. Oil levels should be relatively even when they are lined up, and the solution clean (free of particulate) when drawn into a syringe. It should also be sized proportionately to the volume it contains. The below ampule is very odd, as it can hold about 4 or 5ml, but is a 1ml Sustanon clone. Definitely a fake.

**PILL BOTTLES:**

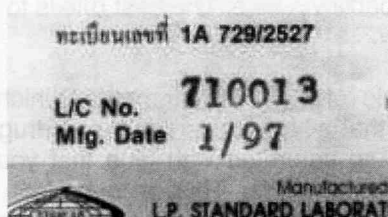
Bottles of loose pills are the crudest of all steroid knockoffs. Very easy to assemble, just about anyone looking to produce a fake could find the resources to do this. In Anabolics 2000, I mentioned that you would not find many legitimate bottles with loose pills on the black market that are real. Most foreign (human) drug marketers package tablets in foil or foil and plastic strips. However, in the past five years, numerous legitimate veterinary firms have started producing steroid tablets in bottles. Many are legit, and good buys. However, it is still a very good ideal to avoid unknown products of this type to be safe.

EXPIRATION DATES:

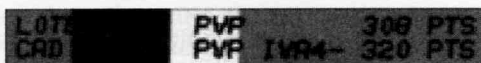
One will want to examine the expiration date on the box/vial to determine if it was stamped or printed separately from the rest of the writing. Legitimate drug manufacturers print the boxes and labels in bulk, and then run the lot number/exp. dates at the time of packaging. Counterfeiters often include these dates with the rest of the printing on the box, avoiding the need for an extra piece of equipment. It is best to see some form of stamp or indent that would tell you for certain that it was added at a later time.



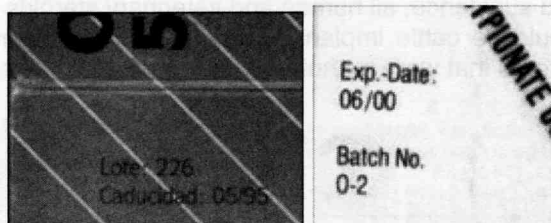
Machine stamping on Spanish Primobolan® and generic Clomid® from Greece.



Stamping on an Anabol Label.



Computer labeling on a legitimate box of Spanish Winstrol®.



Many counterfeits look like this.

The above two counterfeits clearly have dates printed with the rest of the box. Although there are certainly exceptions to this, notably in areas of Eastern Europe, few legitimate drug manufacturers will use this method of coding their items. It is simply too cost ineffective, and inflexible. Seeing this is a fairly reliable indication you have a fake drug.

Non-Glossy Surfaces

Also take a minute to look at the area where the dates and lot code are applied on your box and/or label. This is a particularly important thing to look at if your box is made out of glossy cardboard (it will have a shine to it). Many legitimate pharmaceutical companies will leave a small area on their boxes/labels that does not have a glossy surface. This is for the printing of the lot number and expiration date. Doing this prevents smearing of these vital numbers, which is often a problem when ink is applied directly to a glossy surface. You may have tried to jot a number down on a glossy sheet of paper at one time or another, and found that it rubs off easily. That is the same thing. Although certainly not done in enough frequency to consider this a rule to live by, finding a small non-gloss area on your product does show there is a little extra intricacy to it. Counterfeit drug makers will often overlook small features like this.

Country Specifics

In most countries, a pharmaceutical company is required to meet a specific set of regulations when manufacturing a drug product. This helps us when evaluating our black market anabolics, as counterfeiters often do not have the resources to keep up with these regulations (few do) and cut corners in order to release a product. Here, I will discuss some attributes to look for which will hold true for all of the drugs produced in the specified country.

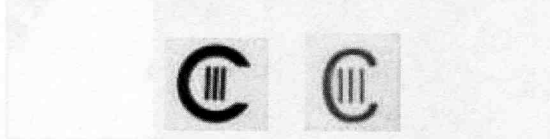
United States:

First, it is very important to stress the fact that steroids are a controlled substance in the United States. If you think this makes little difference to the underground community, think again. Current controls are very effective at keeping American products off of the black market. It is much easier for the illicit dealers to import or manufacture their own products than it is to get any volume of legitimate American anabolics to distribute. Be leery of every American item you see too, it is in all probability a fake. The best rule is to avoid all American items unless you can personally trace them back to a pharmacy.

The FDA does provide us with a couple of strict requirements, which, to date, are not being met by most counterfeiters. The most predominant is that all legitimate American drugs cannot carry a label that will easily be removed from the vial/bottle. It is to be so saturated with glue that you would need a razor blade and saintly patience to remove it, small piece by small piece. This is to protect the public from the possibility of drug mislabeling. I have never seen a counterfeit in which the label could not be peeled off the bottle quickly, in one or a few large pieces. Underground labs just do not have the needed machinery, which provides us the most efficient method for spotting fake American drugs.

If you are unsure, you can also moisten your thumb and rub the expiration date on the box and label. Quite often the ink on the counterfeit will smear and rub off. The real item may streak slightly, but will remain relatively intact and legible.

Also, being a Schedule 3 controlled substance, all human and veterinary steroids are required to bear the following tag (CIII). The only exception would be cattle implant pellets, which are technically not controlled. Some lazy counterfeiters are still duplicating items that were manufactured before 1991, when this tag was not present.



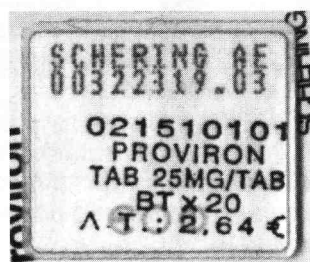
Italy:

All drugs produced in Italy will bear the pictured drug identification sticker. The sticker itself is white, with red and black print. It has also been recently modified, so that like Greek drugs it can be peeled off of a laminated surface. All new Italian drugs will have this peel-off sticker. Do not purchase an Italian drug if it is not present. Likewise, you can probably trust the product if you do see it. Drugs from Italy will also use abbreviations like Prep, Scad, and Del for the counterpart of Lot #, manufacture and expiration dates.

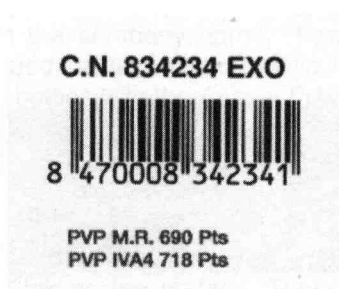


Greece:

Greece also has a drug ID sticker that must be present on all drugs sold. The sticker itself rests on a laminated surface, so that it can be peeled off of the box and affixed to paperwork when a prescription is filled. Do not purchase any Greek drug without the proper sticker attached. Also of note, drugs from Greece will use the abbreviations Lot, Man and Exp. for date stampings. Due to its inclusion in the European Union, all stickers will now display the retail price of the drug in Euros. You MUST look for the € symbol on all boxes manufactured after 2002. When looking at the coded numbers, note that two digits under AE reflect the year of manufacture, in this case 2003. More importantly, Greek stickers will show a hidden mark when placed under UV light (see: Security Stickers for more details). Some counterfeiters have copied these stickers with excellent accuracy, right down to the laminated surface. However, as of yet they have not been able to copy the hidden UV watermark.

**Spain:**

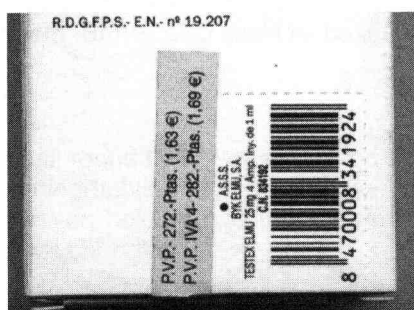
Spanish drugs do not bear a sticker, but have an area on the box that contains a bar code, and some drug information. This area will sometimes have indentations in the cardboard, so as to be removable if you tore the surface. At other times, the barcode is simply printed on the box. Spanish drugs also use the abbreviations Lote and Cad for lot number and expiration date. Recently, many drug boxes are also seen to carry Braille lettering on the box face. Although this is not yet mandatory for all drugs, finding this is certainly a good indicator of a real product. Also, due to recent inclusion in the European Union, all Spanish boxes manufactured after 2002 will display the price in both Pesetas (local currency) and Euros. Look for the € symbol somewhere on the box. Stickers are often seen affixed to boxes with this information, allowing companies to continue to use older boxes already in inventory.



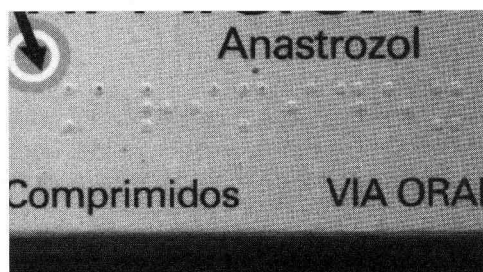
Printed Only



Removable Barcode



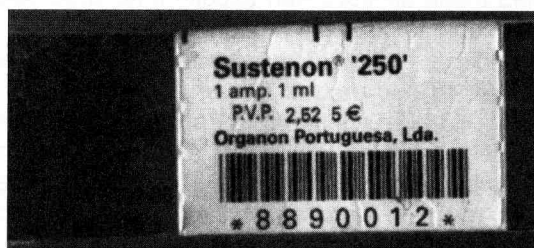
Sticker with Euro Pricing



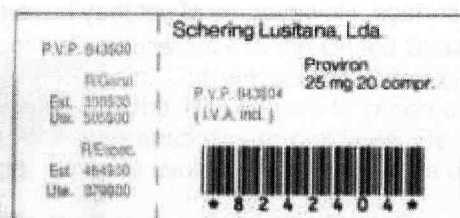
Braille lettering

Portugal:

Drug boxes from Portugal also contain a specific area to look for. It is rectangular, and contains a bar code along with some pricing information. This is sometimes found as a sticker, but most commonly is printed, not stamped, onto the surface. In many cases, the area is scored, so that it can be removed from the box. It is likely that a counterfeiter would have a little difficulty reproducing this, although it has been done before. Drugs from Portugal will also use the abbreviations "Lote:" and "Val. Ate:" for lot number and expiration date stampings. Again, be sure to find pricing in Euros in this area.



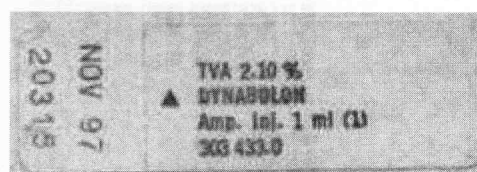
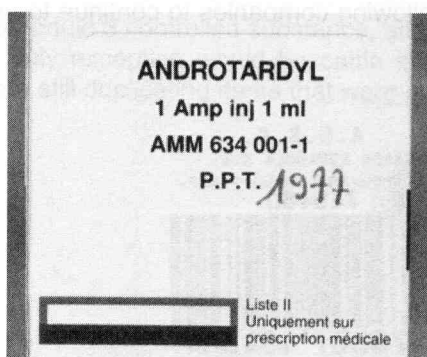
New area with price in Euros



Old one without

France:

All legitimately produced French drugs will bear a rectangular sticker somewhere on the surface of the box. The text and format is often slightly different item to item, so do not rely on these as foolproof indicators of legitimacy. Also, packaging from this country always contains an area with a green and red box. In this case, it is in the lower left side of the Androtardyl box.



Security Stickers

In the multi-billion dollar international steroid business, counterfeit steroids are big money. They are also perhaps the number one financial concern for all parties involved. These drugs cheat consumers out of their hard-earned money, and chip away millions from the bank accounts of legitimate drug manufacturers. As a company owner you can work hard for years to build a recognizable line, just to have a bunch of crooks come in and devalue your products. It doesn't take much. Once enough fakes are dumped into the marketplace, people start waking away from your company and move on to products they can better trust. The more popular your company is in this business, the more you have to worry about it. The smart ones today are not taking this sitting down.

Numerous companies have invested in security features, which they hope the counterfeiters will not have the resources to copy. These include custom designed holograms, etched vials and bottles, watermarked printing, and other general security stickers. Although to this point counterfeiters have demonstrated the capability and willingness to duplicate just about anything, a number of companies have been very successful in their implementations thus far. In this section we will look at a variety of security features in use by popular steroid companies, so you know exactly what to look for when shopping. If you stay resolved to only purchase products with the features listed in this section, you should be able to make safe purchases for some time to come.

Greek Pharmacy Stickers

As I mentioned in "Country Specifics", Greek drugs all carry a particular pharmacy sticker. What most people do not know, however, is that these stickers show a hidden mark under ultraviolet light. In the "Security Stickers" section in the back of this book you will see several different stickers, from different years of use, taken under blacklight. If you don't have a blacklight, get one! This is an ultra reliable method for weeding out the best of Greek fakes at this time.

Animal Power (Mexico)

Animal Power is a new company in Mexico, and started operating right from the start with security in mind. In fact, they have among the most intricate set of anti-counterfeiting features in the industry. These include:

- A) A hologram with the company name, "Paw" logo background, and the words "Animal Power Original Product" all included inside the holographic image.
- B) Etched vials and bottles with the Animal Power Logo.
- C) Custom printed flip caps for vial tops, with Animal Power "Paw" logo.

Brovel (Mexico)

Brovel uses a hologram sticker with "Securite" imbedded in the background of the holographic image, and the company logo printed in ink on the surface. These holograms appear on all boxes and vials. Note that these stickers are easier to duplicate than true custom made holograms, as someone might be able to obtain a similar looking generic hologram sticker and just print the Brovel logo on top of it. Even given that fact, fakes of this type are not yet a problem. Brovel also seals its boxes with tape printed with the company's "BL" logo in yellow ink.

Denkall (Mexico)

Denkall uses a small round hologram sticker on all of its products. This has the Denkall "DK" logo and "Seguridad" imbedded in the holographic image. I have seen some good-looking copies of this hologram made out of a plain silver sticker. However, holding it to the light immediately reveals that there was no rainbow "prism effect", and thus it was not a real QV hologram.

Loeffler (Mexico)

Loeffler uses a generic hologram sticker, which bears no distinct markings like the company name. They are also inconsistent with its use, and do not seem to put it on all products.

Pet's Pharma (Mexico)

Pet's Pharma uses a small circular security sticker. It is half red, half blue (both metallic inks), and printed with the company logo. There is a weak hologram in the background, but it is difficult to see through the ink. It says something generic like "Securite". This logo appears on all products.

Quality Vet (Mexico)

Quality Vet uses a square hologram sticker on all products. This has the QV logo and "Seguridad" both inside the holographic image.

SYD Group (Mexico)

SYD Group uses a small round holographic sticker with the company logo, "Seguridad", and web address embedded in the holographic image. This sticker is affixed to all boxes, as well as the top of the vials.

Ttokkyo (Mexico)

Ttokkyo used to use a rectangular hologram sticker, with the company logo imbedded (as both front image and background pattern) in the holographic image. This sticker would seal one of the flaps on each box, and was affixed to the back of all pill bottles. Ttokkyo has since gone out of business, however, so only leftover stock may be remaining on the black market at this time.

Xelox (Philippines)

Xelox uses a rectangular silver sticker (not a hologram) with the company logo printed on the surface. Once the sticker is peeled from the box, the word "VOID" appears. This stick seals one of the flaps on all product boxes.

British Dragon (Thailand)

British Dragon uses a small round hologram sticker on its oral products. It is a generic holographic sticker, with the company name and dragon logo are printed onto the surface in regular ink. The sticker itself is affixed to all tablet pouches, and was formerly placed on all vials. BD has since changed to using a red embedded metallic foil inlay on the vial labels only, which has the letters BD and company logo.

Unfortunately, the BD security sticker no longer provides 100% assurance of a real purchase. This manufacturer is currently the victim of a sophisticated counterfeiting scheme, which includes the duplication of this sticker. They have not done a perfect job cloning the line, however. They incorrectly affixed a fake BD hologram to their vials, which is now only on their tablet pouches. They have also duplicated the foil inlay on the vial labels in a blue color instead of red. The fake vials also have plastic tops that say "FLIP OFF". The real BD uses a very specific vial top, which reads, "TEAR" (with an arrow to the left) and "FLIP UP" (with an arrow down). Note that this operation is also still duplicating the old pentagon shaped tablets as well, not the new square BD marked pills that the real company is producing.

British Dispensary (Thailand)

British Dispensary uses a small round hologram sticker, with the company snake logo and the words "British Dragon" as the background pattern. Both are imbedded in the image. BD has been the victim of numerous very sophisticated counterfeiting operations in the past. The hologram sticker has been doing a lot to help with this, and has not yet been duplicated. It is, therefore, still a reliable security check.

Serono (U.S.)

Serono, makers of Serostim recombinant human growth hormone (rHGH), have seen their share of counterfeiting. Their Serostim kits were being duplicated with such accuracy that they were actually being sold through some pharmacies. They have since adopted the use of a custom designed hologram sticker, which has the Serono logo imbedded into the graphic. The hologram sticker itself is further imbedded into the box.

PLEASE REFER TO APPENDIX F FOR DETAILED PHOTOGRAPHS OF ALL SECURITY STICKERS

Designer Steroids

There is a fatal flaw in the steroid detection methods used by the various sports agencies. That is, in order to test someone for anabolic steroids, you need to know exactly what you are looking for. You can't just look for "steroids" in the urine, but are forced to test for each specific compound individually. To make things even more complicated, you need to know more than just what these steroids look like chemically before they are administered. You need to know what they are going to look like by the time they appear in the urine, because the original steroids themselves will largely be metabolized into other compounds. For example, nandrolone use is most easily detected by looking for its major metabolites 19-norandrosterone and 19-noretiocholanolone⁴⁶, not nandrolone itself. With this in mind, you need to investigate each potential steroid of "misuse" very closely, and each plan of detection is going to be difficult, and timely, to develop. The past couple of decades have seen a lot of progress in identifying the metabolites unique to most commercially available synthetic steroids. As a result, they are almost all detectable in a urine sample now. In reality, this may still only be a drop in the bucket.

You see, several hundred, if not a thousand or more, different steroids were synthesized and investigated in various laboratories around the world during the heyday of steroid research. In most cases, their anabolic and androgenic potencies were measured, with the same methods that have been used on all of the popular steroids we know today. Only a minute fraction of these research compounds ultimately became commercially available drug products, leaving many potentially excellent steroids by the wayside. This is to be expected in any area of drug research though, as there would be no way for hundreds of similar drugs to exist in the same market. But the early research is still out there, and remains a very valuable source of information for the clever chemists of today.

Some of these old research steroids of the 50's and 60's still exist today, due to the diligence of underground chemists and researchers. We refer to these drugs collectively as "Designer Steroids", and they are here only for the purpose of defeating a drug screen. A true designer steroid is structurally unique next to the known anabolic/androgenic steroids, sharing no common metabolites, so as to be undetectable to even the most thorough steroid test. The thought of tracking down metabolites for all possible steroid compounds, to eliminate the designer steroids issue, seems like an impossible task to say the least. Even if somehow this old research were to be exhausted, and metabolites identified for all known steroids, there are still nearly limitless other ways to alter testosterone, nandrolone, or dihydrotestosterone to make unique new steroids. The designer steroid phenomena could obviously present an overwhelming problem to the sports organizations given present drug testing methods. The athletes can easily stay one or two steps ahead, and nobody on the sidelines is the wiser.

At this point in time, the fact that designer steroids exist is no secret to the sports agencies. It became painfully obvious to the IOC (international Olympic Committee) in March of 2002, when the UCLA Olympic Analytical Lab detected norbolethone, a potent c-17 alpha alkylated nandrolone derivative investigated back in the 1960's, in the urine samples from a female athlete⁴⁷ (see Drug Profiles: Norbolethone). It turned out to be Tammy Thomas, a 32-year-old cyclist from Colorado Springs. This was the second time she failed a drug test actually, which resulted in a lifetime ban from competition. One of the samples in question was actually flagged previously, with a group of others, because it had extremely low endogenous steroid concentrations (suggesting suppression from exogenous steroid administration). Don Catlin, who runs the UCLA Olympic Analytical Laboratory, would connect it to the designer steroid norbolethone much later. The fact that only one of these samples retroactively tested positive suggests that other designer steroids were being used by competitors in addition to norbolethone.

Catlin was able to obtain a sample of pure norbolethone from the drug company Wyeth, and must have been greatly aided by the fact that metabolites of this steroid had been identified in earlier studies⁴⁸. The procedure for norbolethone detection has now been made available to all testing agencies, and unfortunately it is now unsafe for competition. Its value as a designer steroid has likewise vanished overnight. Perhaps it was a bad idea to use a steroid that actually made it all the way to the point of clinical trials in the U.S., as there is quite a bit of information to be found on it (not having the urinary metabolites study would have made things a lot harder on Catlin). Honestly, I can think of a number of more effective and safer compounds to use than this hideously progestational one (ooh, the water bloat). I don't think the chemist was really thinking this one through very thoroughly, and may want to get some help from someone that really knows these agents next time.

The norbolethone story quietly fell from the public conscience not long after it broke. The number of athletes that ultimately tested positive for the drug was minimal, so it really never evolved into the big scandal that was initially expected. The USADA thrives on negative media attention to steroids, because it leads to more government

funding, so no doubt this lack of public outrage was a disappointment. I would suspect many involved were hoping for global story on par with what happened when Ben Johnson was stripped of his gold medal during 1988 summer Olympics. This would be of little matter by January 2004, however, because a much bigger doping scandal was about to hit. It involved the use of the designer steroid tetrahydrogestrinone (see Drug Profiles: THG), and this time would snare some of the biggest figures in amateur and professional sports. Not just Olympic competitors, but professional football and baseball players were being listed as potential violators. Many household names were being thrown around, including Jason Giambi, Barry Bonds and Gary Sheffield. Over 20 athletes ultimately tested positive for THG, or were specifically named for using it in the evidence. The investigation continues today, so this number may rise. Don Catlin was once again the scientist who helped identify this compound in the first place, as well as a method of its detection in urine. This time around, however, he had a lot more help than he did with norbolethone. THG was actually handed over to the IOC testing laboratory in a syringe, by an anonymous coach who did not approve of its use. With the help of an inside informant, USADA got their Ben Johnson story, and then some. THG was at the center of the biggest organized doping scandal in the history of competitive sports, and would come to spark a more vigorous government fight against steroid use than we had yet seen. The steroid-using community is only now beginning to feel the backlash.

I include these stories not because they illustrate victories for the IOC. Quite the contrary, I believe they underline the major failings in current steroid testing methods. These two incidents logically do not represent the only two designer steroids ever used in competitive sports. For one, we surely cannot expect a 100% success rate for the IOC when we know that THG use went completely unnoticed for months, if not years. Nobody knew anything about this steroid until a sample was handed over to the testing facility, which is the same facility that had unwittingly been passing urine samples containing the same steroid just days before. Were it not for the inside source, THG would probably still be in use today. The norbolethone and THG stories spit in the face of those on the sidelines, who insist that drug testing ensures their favorite athlete is drug free. The fact is, many other potent designer steroids are probably out there, either in the books, or in the gym bags, of many of the world's top competitors. It may take years for the next designer compound to be identified by the IOC labs, and perhaps only a matter of weeks for a new one to be synthesized once it is. It is a game the drug testers simply cannot win given the tools they have available to them now. We may see repeats of these scandals in the future, but such events will only exemplify the proficiency of those working against drug testing. They show the public the unshakable will of the athletes who are going to use these agents, not the testing agencies that police them.

Anabolic Steroids and the Law

If you live outside of the United States, chances are the country that you live in has a reasonable grasp on the how minimally anabolic steroids affect society as a whole. Your country is probably not sensing a public health crisis, nor locking up and persecuting bodybuilders for mere possession of these drugs. In the United States, however, things are very different. Here, it is a federal crime to possess anabolic steroids without a doctor's prescription. Get caught with some of the same hormones that your already have in your body naturally, and you could land yourself in serious trouble. The current federal penalty for the possession of anabolic steroids is up to one year in jail and a \$100,000 fine for a first offense. The penalties for distribution are much more severe. If you live in the United States, and are not obtaining your drugs through a doctor's prescriptions, this section may be of particular relevance to you.

Although anabolic steroids have been classified as controlled substances in the U.S. since 1991, there was a recent expansion to this law called the Anabolic Steroid Control Act of 2004. It was signed into law by President George W. Bush in October of 2004. The new law is in effect as of January 20th, 2005. Of particular interest are the new compounds that have been added to the list of controlled drugs. They include most steroidal precursor hormones, such as androstenediol, norandrostenediol, and hydroxyandrostenedione (formestane), as well as many of the new synthetic agents, like methyl-1-testosterone, methylidienolone, and hydroxymethylnandrolone. Also added are some old commercial drugs that were missed the first time, including bolasterone, mestanolone (methylDHT), and oxabolone (Steranabol Ritardo). The new law also removes the legal requirement that a compound be proven anabolic in humans before it can be added to the list of controlled substances. This "promotes muscle growth" clause was the key roadblock to removing all of the "legal steroids" that have slipped through to market the past 8 years. The new law effectively eliminates the legal steroid loophole in the U.S.

The main body (drug listings) of the Anabolic Steroid Control Act of 2004 has been included for your review below.

- `(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) androstenediol--
 - ` (I) 3b,17b-dihydroxy-5a-androstane; and
 - ` (II) 3a,17b-dihydroxy-5a-androstane;
- ` (ii) androstenedione (5a-androstan-3,17-dione);
- ` (iii) androstenediol--
 - ` (I) 1-androstenediol (3b,17b-dihydroxy-5a-androst-1-ene);
 - ` (II) 1-androstenediol (3a,17b-dihydroxy-5a-androst-1-ene);
 - ` (III) 4-androstenediol (3b,17b-dihydroxy-androst-4-ene); and
 - ` (IV) 5-androstenediol (3b,17b-dihydroxy-androst-5-ene);
- ` (iv) androstenedione--
 - ` (I) 1-androstenedione ([5a]-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 (7a,17a-dimethyl-17b-hydroxyandrost-4-en-3-one);
- ` (vi) boldenone (17b-hydroxyandrost-1,4,-diene-3-one);
- ` (vii) calusterone (7b,17a-dimethyl-17b-hydroxyandrost-4-en-3-one);
- ` (viii) clostebol (4-chloro-17b-hydroxyandrost-4-en-3-one);
- ` (ix) dehydrochloromethyltestosterone (4-chloro-17b-hydroxy-17a-methyl-androst-1,4-dien-3-one);
- ` (x) *1-dihydrotestosterone (a.k.a. `1-testosterone') (17b-hydroxy-5a-androst-1-en-3-one);
- ` (xi) 4-dihydrotestosterone (17b-hydroxy-androstan-3-one);
- ` (xii) drostanolone (17b-hydroxy-2a-methyl-5a-androstan-3-one);
- ` (xiii) ethylestrenol (17a-ethyl-17b-hydroxyestr-4-ene);
- ` (xiv) fluoxymesterone (9-fluoro-17a-methyl-11b,17b-dihydroxyandrost-4-en-3-one);
- ` (xv) formebolone (2-formyl-17a-methyl-11a,17b-dihydroxyandrost-1,4-dien-3-one);
- ` (xvi) furazabol (17a-methyl-17b-hydroxyandrostano[2,3-c]-furazan);
- ` (xvii) 13a-ethyl-17a-hydroxygon-4-en-3-one;
- ` (xviii) 4-hydroxytestosterone (4,17b-dihydroxy-androst-4-en-3-one);
- ` (xix) 4-hydroxy-19-nortestosterone (4,17b-dihydroxy-estr-4-en-3-one);
- ` (xx) mestanolone (17a-methyl-17b-hydroxy-5a-androstan-3-one);
- ` (xxi) mesterolone (1a-methyl-17b-hydroxy-[5a]-androstan-3-one);
- ` (xxii) methandienone (17a-methyl-17b-hydroxyandrost-1,4-dien-3-one);

- `(xxiii) methandriol (17a-methyl-3b,17b-dihydroxyandrost-5-ene);
- `(xxiv) methenolone (1-methyl-17b-hydroxy-5a-androst-1-en-3-one);
- `(xxv) methyltestosterone (17a-methyl-17b-hydroxyandrost-4-en-3-one);
- `(xxvi) mibolerone (7a,17a-dimethyl-17b-hydroxyestr-4-en-3-one);
- `(xxvii) 17a-methyl-^{*}1-dihydrotestosterone (17b-hydroxy-17a-methyl-5a-androst-1-en-3-one) (a.k.a. `17-a-methyl-1-testosterone');
- `(xxviii) nandrolone (17b-hydroxyestr-4-en-3-one);
- `(xxix) norandrostenediol--
 - (I) 19-nor-4-androstenediol (3b, 17b-dihydroxyestr-4-ene);
 - (II) 19-nor-4-androstenediol (3a, 17b-dihydroxyestr-4-ene);
 - (III) 19-nor-5-androstenediol (3b, 17b-dihydroxyestr-5-ene); and
 - (IV) 19-nor-5-androstenediol (3a, 17b-dihydroxyestr-5-ene);
- `(xxx) norandrostenedione--
 - (I) 19-nor-4-androstenedione (estr-4-en-3,17-dione); and
 - (II) 19-nor-5-androstenedione (estr-5-en-3,17-dione);
- `(xxxi) norbolethone (13b,17a-diethyl-17b-hydroxygon-4-en-3-one);
- `(xxxii) norclostebol (4-chloro-17b-hydroxyestr-4-en-3-one);
- `(xxxiii) norethandrolone (17a-ethyl-17b-hydroxyestr-4-en-3-one);
- `(xxxiv) oxandrolone (17a-methyl-17b-hydroxy-2-oxa-[5a]-androstan-3-one);
- `(xxxv) oxymesterone (17a-methyl-4,17b-dihydroxyandrost-4-en-3-one);
- `(xxxvi) oxymetholone (17a-methyl-2-hydroxymethylene-17b-hydroxy-[5a]-androstan-3-one);
- `(xxxvii) stanozolol (17a-methyl-17b-hydroxy-[5a]-androst-2-eno[3,2-c]-pyrazole);
- `(xxxviii) stenbolone (17b-hydroxy-2-methyl-[5a]-androst-1-en-3-one);
- `(xxxix) testolactone (13-hydroxy-3-oxo-13,17-secoandrosta-1,4-dien-17-oic acid lactone);
- `(xl) testosterone (17b-hydroxyandrost-4-en-3-one);
- `(xli) tetrahydrogestrinone (13b,17a-diethyl-17b-hydroxygon-4,9,11-trien-3-one);
- `(xlii) trenbolone (17b-hydroxyestr-4,9,11-trien-3-one); and
- `(xliii) any salt, ester, or ether of a drug or substance described in this paragraph.;

State vs. Federal

Things are also more complicated for citizens of the United States than just having to pay attention to Federal laws. Most criminal prosecutions for steroid possession actually take place at the State level, and in accordance with State laws. In many instances, the State law was written with compound names and penalties that are similar to the Federal statutes. Sometimes they are vastly different in structure. In some instances, the States have even enacted more encompassing laws than the Federal government, such as California and Nevada, which already had made some of the "legal steroids" and steroidal precursors illegal when their steroid laws were first enacted. The penalties for mere possession can also vary greatly from State to State, as does the way the dosage units are counted. In some States, 100 tablets of Dianabol is looked at as felony distribution weight, instead of just the personal-use cycle it would actually be. Possession of any steroid in many regions of the country can land you in jail for up to five years, sometimes more. Sometimes the State courts so misunderstand steroids, that they weigh the carriers in a pill or injectable vial when making prosecutions. In such jurisdictions, a single 30ml vial of testosterone can be interpreted as a 30-gram dealing dose of drug. Don't be surprised if you hear a prosecutor saying, "He is a drug dealer your honor. He had more than a full ounce in his trunk!" Two states actually do not have any laws against steroid possession at all. It is a big mess.

There is a tremendous amount of confusion over anabolic steroids in the United States, especially at the State level. Given the recent push from the Federal government for increased prosecutions, as well as heightened controls and expanding laws for possession, things are likely to get even tougher for steroid-using athletes here. If you are not obtaining your medications legally through a physician's prescription, it is a good idea to study the steroid laws closely, particularly those of your State. It is important to understand what particular risks you are taking, so you can make decisions accordingly. For example, the last thing you want to be doing in many of these States is driving around with your bottle of Dianabol in the glove compartment, just so you can pop a few tabs after you workout. The book "Legal Muscle: Anabolics in America" by lawyer Rick Collins [teamlegalmuscle.com] is an excellent review of the legal situation concerning steroids in the U.S., and provides invaluable eye-opening advice, including a detailed breakdown of all State steroid laws to sort out the mess described above. I advise everyone taking legal risks to use these drugs to pick it up. It could save you a great deal of time, money and grief.

PART III

Drug Profiles