

Vitruvian Man

Private Testosterone Services

Post Cycle Therapy

Testosterone, in correct quantities, is just great. This hormone is the primary driver for masculinity, virility and athletic performance. It is of no surprise that testosterone and its derivatives are banned by elite sports governing bodies.

The normal range for men is between 8.4 – 28.7 nmol/L of blood. This is a measurement of Total Testosterone and from its peak will decline by between 0.4 and 0.8% per year. But what if after a bit of help from some “supplements” (read steroids) your level was only 4? There’s no lead in your pencil and you seriously can’t be arsed to train. What’s going on?

Your testes can produce up to 10mg testosterone daily, or 70mg per week. In anabolic/androgenic steroid (AAS) using circles a weekly injected dose of 200mg testosterone enanthate is considered very conservative. This is three times what could be expected from the testes on a busy week! It’s of small wonder that testicular atrophy (ball shrinkage) is an expected side effect of AAS use, then. Excess testosterone from an external source effectively renders the testicles redundant. So they shut down. The closed signs are up and they’re in hibernation, losing size all the while.

“How do I know my steroids are the real thing?” I’m asked by many, and rightly so given the unregulated underground lab market that dominates the AAS scene. The best answer I’ve heard was “Your muscles will grow and your balls will shrink”. Thanks, Steve at Hercules Gym Madeley. Give that man a gold star.

It may seem paradoxical to note, but testosterone levels are actually dictated by the hormone Oestradiol (oestrogen, the predominantly female hormone). Women do produce testosterone too, albeit in lesser amounts by the adrenal cortex.

The brain – specifically the hypothalamus – monitors for high circulating Oestradiol levels to control the testosterone production cascade. When elevated levels are detected, signalling hormones secreted by the hypothalamus are reduced. Their job is to pass messages to the pituitary gland, thereby instructing the testes (via luteinising hormone, primarily) to simply get on with it. Make testosterone. And sperm, of course.

The major players which oversee this testosterone production cascade are known as the Hypothalamus – Pituitary – Testicular Axis (or HPTA). Their role is to maintain *homeostasis* (Greek for “same state” - a balance or equilibrium) and it does this via a negative feedback loop.

Basically, too much Oestradiol equals a reduction in the output of natural testosterone. This is homeostasis in action. What’s important to note is that testosterone is converted to Oestradiol by a specific enzyme called aromatase. That explains where it all comes from! Oestradiol promotes female fat distribution patterns. Man boobs and love handles, anyone?

As fat deposits increase, so too does aromatase. Interestingly, because AAS use upregulates aromatase expression, a further causative effect may be concluded between reduced natural testosterone production and AAS use. Do you really need to gain that much weight during a bulking

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phase? To quote 8 times Mr Olympia Lee Haney "If you can't flex it, don't carry it." Wise words. Aromatase inhibitors are frequently used to address this concern, but are very often overkill. Healthy oestradiol levels are essential for mass gain and cardiovascular health, particularly blood lipid profiles. An oestradiol blood test can inform you exactly what your level is and if it's too high. And anyway, if your nipples hurt and you're developing breast tissue you may be well advised to reconsider your dosage of steroids.

The resultant symptoms of this post steroid hypogonadal state are decreased libido, fatigue, depression, insomnia and erectile dysfunction. Moreover, there is a direct link between decreased sex hormones and cardiovascular disease. Ironically, there is also the same link with artificially elevated hormone levels! So the importance of optimising testosterone levels is readily apparent. Not just for your health but to attain athletic and performance goals. AAS drugs do not adequately address this. Their use results in vastly elevated levels of testosterone (supraphysiological amounts) for the duration of an AAS cycle. This is followed by an extended period of natural testosterone production suppression. What goes up must come down. In fact, after a cycle of steroids natural testosterone doesn't make it back up to baseline readings.

My professional field of expertise is clinical work with men who use AAS. Without exception they all end up with a marked post cycle reduction in natural testosterone levels. This is referred to medically as hypogonadotropic hypogonadism. This condition (easily identified with a simple blood test) often requires a prescription for medications to reinstate natural testosterone production. HCG mimics luteinising hormone, essentially "kick starting" testosterone production. Anti-oestrogens (Clomid and Tamoxifen, for example) limit the testosterone down regulating effect that excess oestrogen imparts on the brain. Simple, but effective. Of course, optimal outcomes are dependant on duration and potency of the AAS cycle(s). Less is best. Using legitimate pharmaceutical PCT products help to, obviously.

A robust PCT plan should always accompany any AAS cycle. All too often I note individuals who neglect utilising PCT jumping back on the gear after a very brief break. Or, worse still, not having one at all. An off-cycle should be at least as long as the steroid cycle. PCT enables this to happen by rapidly reinstating natural testosterone levels. It will help preserve gains and allow the body the time required to normalise after an AAS cycle.

Train hard. Be strong. Stay healthy. Live long.

Squaring the circle of men's health