

# Vitruvian Man

## Private Testosterone Services

There is a conservative estimate that 70,000 people used Androgenic/Anabolic Steroids (AAS) in 2012 (source – British Crime Survey, 2012). When compared to the figure of 50,000 in 2010, this indicates a dramatic increase, a trend which shows no signs of abating. Let's face the facts; it exists.

AAS use can yield performance enhancing results, as anyone who has experimented with these drugs will attest. But are they the innocuous magic potions or elixirs of youth they're often touted to be?

In this series we'll explore the fundamental health implications of their use. Side effects are commonplace and - quite frankly - to be anticipated. With the use of specific blood tests, health consequences may be identified before physical symptoms become apparent and/or hazardous to long term health.

These findings are evidenced based and, in addition, detail the results I see when performing blood tests on AAS using athletes in the real world. There are myriad AAS related health marker values which can be tested for to monitor health and minimise harm. We'll begin with **Blood Lipid Profiles**.

Studies prove definitively that AAS use (and in my experience oral AAS, particularly) has a negative impact on lipid profiles.

Cholesterol is a lipid (fat chemical) made in the body, predominantly the liver. It is also in the food we eat, but poorly absorbed, therefore dietary cholesterol has little effect on blood cholesterol levels. There is a strong familial link to high cholesterol.

Cholesterol is carried in the blood by lipoproteins. There are differing types, but the most relevant to cholesterol are Low Density Lipoprotein (LDL) and High Density Lipoprotein (HDL).

LDL - "*bad cholesterol*" - is mainly involved in the formation of atheroma, the primary underlying cause of cardiovascular disease.

HDL - "*good cholesterol*" - contributes to atheroma prevention.

Frequently I see blood results where the Total Cholesterol (TC) is within acceptable parameters (*5.0 mmol/L or less*) but both LDL and HDL values are deranged. Therefore TC testing in isolation permits only a limited interpretation. Worse still, can be a misrepresentation of compromised lipid health.

It is, however, of diagnostic value when used as part of a complete lipid profile to determine your TC/HDL ratio. This is your Total Cholesterol divided by your HDL and should be *4.5 or less*. Simply put, the more HDL the better.

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In my practice, it is extremely common that I see significantly raised TC/HDL ratios in AAS users. In fact, it is often elevated by 50 – 100%. I have a client, mid-twenties with a 6% body fat and total cholesterol of 4.6 mmol/L. So far, so good, right? Unfortunately his LDL was elevated above normal ranges (*3.0mmol/L or less*), but more significantly, his HDL reading was disturbingly low at 0.34mmol/L (*healthy range is 1.2 or greater*). Resultant TC/HDL ratio figured at 13.5. Three times greater than what's acceptable! By the way, no previous AAS use except for being 4 weeks into a methandrostenolone (Dianabol) cycle...

AAS use (though the severity is influenced by dosing regimens and duration) is proven to both decrease HDL and increase LDL. Over time this trend will result in plaque deposits and hardening of the arteries, compromising cardiovascular health. Long, heavy cycles with little off time, the increasing trend of “Blast and Cruise” and unmonitored self-medicated TRT are of particular concern.

It is of note that concurrent use of Aromatase Inhibitors (Arimidex and Letrozole, for example) significantly worsens lipid profiles, as oestrogen can have a positive influence on blood lipids.

It is important to make informed decisions regarding any performance enhancing route you choose to take. Monitoring your health is of equal importance in protecting yourself. Sensible recommendations are to have your blood values checked prior to any AAS use. This determines a baseline for any future comparison and to identify any existing abnormalities. Then monitor routinely.

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

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Squaring the circle of men's health

