Steroid Facts
WHAT ARE ANABOLIC/ANDROGENIC STEROIDS?

Anabolic-androgenic steroids (or anabolic steroids) are derived from testosterone. They were originally developed because synthetic testosterone has little very effect when used to treat certain medical conditions. A number of anabolic steroids are prescribed to treat conditions in humans and animals. Anabolic steroids have both ANABOLIC and ANDROGENIC effects. The ANABOLIC effects assist in the growth and repair of tissue, mainly muscle. The ANDROGENIC effects are involved in the development and maintenance of male sex characteristics. It has NOT yet been possible to separate the anabolic and androgenic effects. ALL anabolic steroids have both anabolic and androgenic effects to varying degrees.

TESTOSTERONE IS THE NATURAL MALE HORMONE WHICH IS RESPONSIBLE FOR THE PRIMARY AND SECONDARY SEX CHARACTERISTICS SUCH AS BODY HAIR, DEEPENING OF THE VOICE, DEVELOPMENT OF THE MALE SEX ORGANS AND SEX DRIVE.

SOME PEOPLE BELIEVE THAT TESTOSTERONE WAS USED AT THE 1936 OLYMPICS BY GERMAN ATHLETES, AND OTHERS SUGGEST THAT NAZI SOLDIERS WERE GIVEN IT DURING WORLD WAR II. WEIGHTLIFTERS FROM THE SOVIET UNION WERE USING TESTOSTERONE IN THE MID 1950’S, LEADING TO ITS USE BY AMERICAN WEIGHTLIFTERS AND EVENTUALLY TO THE USE OF ANABOLIC STEROIDS IN A VARIETY OF SPORTS.
Anabolic steroids are available as tablets to swallow, or as a liquid for injecting, both of varying strengths. Some of the most common types of steroids are:

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<tr>
<td></td>
<td>Deca-durabolin</td>
<td>Sustanon 250</td>
<td>Primobolan depot</td>
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<td>ORAL</td>
<td>Anapolan 50</td>
<td>Andriol</td>
<td>Primobolan tablets</td>
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<table>
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<th>VETERINARY</th>
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<td>Drive</td>
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After taking anabolic steroids, they travel through the blood and bind to specific receptor sites in muscle and other cells of the body. When the anabolic steroid attaches to the muscle cell receptors a message is transmitted that results in muscle repair and growth. This is best achieved through a combination of adequate training and a managed diet.

Other names for anabolic/androgenic steroids

ROIDS, GEAR & JUICE
WHO IS USING ANABOLIC STEROIDS, AND WHY?

International research has identified 5 groups of anabolic steroid users:

- **COMPETITIVE ATHLETES** - who are motivated by the desire to succeed and the subsequent rewards, financial or otherwise;

- **BODY IMAGE** - possibly the largest group of users, who are using simply to look good. This group includes recreational weight trainers/bodybuilders, those in the fashion and entertainment industry, and gay men;

- **BODYBUILDERS** - in contrast to recreational bodybuilders, these users are actively involved in bodybuilding as a competitive sport and use anabolic steroids as a major part of their training;

- **OCCUPATIONAL USERS** - where the use of anabolic steroids is perceived to help in the carrying out of employment duties and includes bodyguards, security personnel, construction workers, police and members of the armed services;

- **adolescents** - typically young males striving to reach the same physical stature portrayed in the popular media or increase their level of athletic performance.

**Recent research conducted in NSW has shown that anabolic steroid users are predominantly male, well educated and in full or part time employment with a substantially higher disposable income than the average member of the Australian community. This research also indicated that the main motivations to use anabolic steroids were to improve appearance, increase size and strength.**
HOW ARE ANABOLIC STEROIDS USED?

The use of anabolic steroids without a medical prescription is illegal in all parts of Australia.

No two anabolic steroid users have the same pattern of drug use. Nevertheless, there are some features that form the basis of all anabolic steroid use. **Cycling** refers to the practice of using anabolic steroids for a set period of time, based on specific short-term goals, followed by a period of no use.

It is common practice for many users to administer two or more anabolic steroids. This is known as **Stacking**. Many steroid users vary the dosage that they administer within each cycle. Common examples include: pyramid cycles, where the dosage is increased to a peak around the middle of the cycle and then reduced back again; gradually increasing; and, gradually decreasing the dosages.

While the outer thigh and the buttocks are favoured injection sites, it is quite common for users to inject in other areas such as the calf, bicep, and/or deltoid muscles in the belief that this can build specific muscle groups. The practice of injecting into these areas can be dangerous as they are smaller muscles which increases the risk of injecting into veins and nerves.

**REPORTED ANABOLIC STEROID INJECTION SITES**

- Shoulder / Deltoids
- Biceps
- Latissimus
- Thighs / Quadriceps
- Calves
Over-the-counter nutritional supplements such as protein powders, creatine monohydrate, vitamins and minerals are often used by anabolic steroid users. Other drugs are also used for their alleged training benefits or to reduce/prevent the side effects experienced.

- **INSULIN** is primarily involved in the regulation of blood glucose levels, as well as being involved in the metabolism of protein, carbohydrate and fat. Insulin is used as it is believed to contribute to increased muscle bulk. However, there is no scientific evidence to support this. There are serious dangers associated with this practice, with several insulin-related deaths among bodybuilders reported in Australia.

- **HUMAN GROWTH HORMONE** acts on carbohydrates, fats and protein. Use of this hormone can cause serious health problems including acromegaly (overgrowth of hands, feet and face), pathological growth of the heart, and joint pain.

- **AMPHETAMINES** and **EPHEDRINE** for the stimulant effect during training sessions and as an aid when ‘cutting up’ (reducing body fat).

- **OESTROGEN ANTAGONISTS, PROVIRON** and **HUMAN CHORIONIC GONADOTROPHIN** are used to manage side effects such as gynaecomastia (breast-like growth in the male) and shrinking testicles.

- **CLENBUTEROL, THYROXINE** and **DIURETICS** for fat reducing and ‘cutting up’.

**THE USE OF THESE DRUGS WITHOUT PROPER MEDICAL SUPERVISION IS VERY DANGEROUS AND IN MANY CASES MAY BE LIFE THREATENING.**

There is very little understanding of the effects of these drugs especially when used together with anabolic steroids.
WHAT ARE THE EFFECTS OF ANABOLIC STEROID USE?

Although users report benefits following the non-medical use of anabolic steroids there are also a number of negative physical and psychological/behavioural side effects. It is important to note that not all users will experience each or all side effects. There is also some variation in the degree to which each side effect is experienced by users. Some side effects are irreversible and others have been associated with death. Side effects attributed to anabolic steroid use include:

### PHYSICAL SIDE EFFECTS
- Acne
- High blood pressure
- Liver problems
- Heart problems
- Increased cholesterol levels
- Gynaecomastia ("bitch tits")
- Hair loss
- Hypertension
- Sleeplessness
- Headaches
- Tendon injuries
- Permanent short stature in adolescents
- Tendon/ligament damage
- Water retention

### PSYCHOLOGICAL SIDE EFFECTS
- Increased aggression
- Increased irritability
- Mood swings
- Depression
- Dependence

### FEMALES
- Clitoral enlargement
- Smaller breasts
- Voice changes

### MALES
- Shrinking testicles
- Prostate problems

An additional side effect is the risk of infection with HIV and other blood borne viruses, such as hepatitis C, following the unsafe use of injecting equipment.

The term 'roid rage' is frequently used to describe the aggressive behaviour of some anabolic steroid users. While there is no accepted description of this phenomenon as yet, it may represent the extreme end of users’ natural aggression.

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