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## Anabolic steroids

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### Summary

- Anabolic steroids are a group of synthetic drugs that copy the masculinising effects of the male sex hormone, testosterone.
  - There are some legitimate medical uses for anabolic steroids.
  - Anabolic steroids are often referred to as a 'performance and image enhancing drug', and are used to increase sporting performance and outcomes.
  - People who misuse anabolic steroids may include athletes, bodybuilders and people who feel they need to look muscular to feel good about themselves.
  - Side effects can include cardiovascular complications, liver disease, damage to the reproductive organs and severe mood swings.
  - Support is available for anabolic steroid users who want to change their dependence on these drugs.
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Testosterone is a male hormone that has anabolic and androgenic effects. The anabolic effect includes maintaining bone density, the growth of muscle, and the rapid recovery from injury. The androgenic or masculinising effect is responsible for developing and maintaining all male characteristics. These include the penis, testicles, muscle mass, deep voice and facial hair.

Even though testosterone is called a male sex hormone, it occurs naturally in women as well, but in much smaller amounts. There are some legitimate medical uses for anabolic steroids. However, men and women users who take anabolic steroids illegally do so to increase lean muscle mass.

The abuse of anabolic steroids is most common among professional athletes and bodybuilders. Teenagers and adults who feel they need to look muscular to feel good about themselves may also abuse anabolic steroids.

### How anabolic steroids work

Anabolic steroids work by imitating the properties of naturally occurring hormones.

Receptors present on muscle cells respond to different hormones. Anabolic steroids have a similar chemical composition to testosterone and therefore are able to activate testosterone receptors.

Once the receptors are stimulated, a domino effect of metabolic reactions takes place as the drug instructs the body to increase muscle tissue production.

### Forms of anabolic steroids

Anabolic steroids can take the form of tablets, capsules or injectable liquids, depending on the brand. Common slang terms for steroids include 'roids', 'gear' and 'juice'.

### Effects of anabolic steroids

People who use anabolic steroids generally experience an increase in muscle strength very quickly. This generally means that people are able to train more often and for longer periods of time, with improved recovery. This can often lead to rapid increases in lean muscle tissue. Fluid retention is also common, and can lead to muscles looking soft or bloated.

### Dependence on anabolic steroids

If a person's positive body image is a driving factors for the use of anabolic steroids, then giving up can be extremely difficult. Some people continue to take anabolic steroids even though it is affecting their health. This psychological dependence can lead to depression, anger or anxiety if access to steroids is denied, even

temporarily.

### **Damage caused by long-term anabolic steroid use**

Anabolic steroids can produce many unpleasant and often permanent side effects, including:

- damage to the gonads (testicles or ovaries)
- liver diseases
- malfunctions of the kidneys, liver or heart
- 'roid rage', which is characterised by uncontrollable outbursts of psychotic aggression
- paranoia
- mood swings, including deep depression
- severe acne
- high blood cholesterol levels
- high blood pressure
- injuries to tendons that can't keep up with the increased muscle strength
- delusional feelings of being superhuman or invincible
- fluid retention
- trembling and muscle tremors
- stunted bone growth in adolescents.

### **Gender-related side effects of anabolic steroids**

Side effects of anabolic steroid use vary depending on whether you are male or female. For instance:

- for men – testicle and penis shrinkage, reduced sperm count, impotence, prostate problems, gynaecomastia (breast development) and baldness
- for women – loss of the menstrual cycle (amenorrhea), shrunken breasts, deepened voice, facial and body hair, and abnormal growth of the clitoris.

### **Anabolic steroids and other commonly misused drugs**

A person who abuses anabolic steroids is likely to turn to other supplementary drugs to either speed up their physical transformation or counter the side effects of the steroids. The dangers of mixing these drugs aren't fully known.

Some of these other drugs may include:

- amphetamines – to counteract feelings of deep depression and aid in fat loss
- beta blockers – to counteract trembling
- diuretics – to counteract fluid retention
- human growth hormone – such as human chorionic gonadotrophin (HCG) to stimulate the body's natural production of testosterone and counteract testicle shrinkage.

### **Treatment for anabolic steroid addiction**

Treatment options for drug addiction include detoxification, individual counselling and group therapy. See your doctor for information and referral, or contact an alcohol and other drug service in your area.

### **Where to get help**

- Your **GP (doctor)**
- Sports psychologist
- **DrugInfo** Tel. **1300 85 85 84** – information and referral services for anyone seeking help for alcohol or drug use
- **DirectLine** Tel. **1800 888 236** – for 24-hour confidential drug and alcohol telephone counselling, information and referral

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- **Youth Drug and Alcohol Advice (YoDAA)** service Tel. **1800 458 685** – for information, counselling and referral to youth-specific alcohol and other drug services

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