

What are steroids?

Steroids are a specific group of [hormones](#) that are needed for normal body function. There are different types of steroids that act in different parts of our bodies. ☐

The steroids that people use for enhancing their physical performance or appearance are versions of testosterone (the main sex hormone in males) and are called 'androgenic steroids'. They are sometimes also referred to as 'anabolic steroids' or 'anabolic-androgenic steroids'.

The use of testosterone for the enhancement of physical performance or appearance is different to when used as a medical treatment for [testosterone deficiency](#).

Sometimes people refer to 'steroids' when using corticosteroids. This is a different type of steroid and has a different function, and can be used in treating asthma, eczema, autoimmune disease and more.

What is steroid misuse or abuse?

Steroid misuse is when you use steroids (testosterone or other similar hormones or drugs) without a valid medical reason, including:

- Infertility
- Sexual dysfunction without proven androgen deficiency
- A low testosterone level associated with chronic disease (e.g. obesity, diabetes)
- Non-specific symptoms like tiredness or low mood
- Age

Steroid abuse is when you use steroids without any medical need, including:

- Increasing physical performance (e.g. increased strength or endurance)
- Altering your physical appearance (e.g. increased muscle mass)
- Work (e.g. military, police, security)

Steroid misuse usually involves off-label prescription of pharmaceutical products and use of normal clinical dosing, whereas steroid abuse often involves illicitly sourced products of questionable quality taken at excessively high doses and in combination with other substances.

The [myth](#) that men's testosterone levels naturally fall with age has led to the misuse of steroids in the hope of an [unproven rejuvenating effect](#) in middle-aged and older men. There is [no evidence](#) that steroid misuse is safe and evidence of limited benefits is only available for [men aged over 65 years with health problems](#).

How common are steroid misuse and abuse?

Somewhere between [1% and 5% of people](#) are believed to abuse steroids in their lifetime, with the rate about 50 times higher for males than females. Steroid abuse begins most commonly in males aged in their [early 20s](#), whereas misuse is most predominant in [middle-aged males](#). A large proportion of people who [misuse](#) or [abuse](#) androgens appear to develop steroid dependence.

What are the signs of steroid abuse?

Physical signs of steroid abuse in males:

- Rapid weight gain (approx. 10 kg in two to three months)
- Muscular physique (disproportionate muscle growth around chest, neck and shoulders)
- Severe acne (mainly on the back, shoulders and chest)
- Stretch marks (usually between biceps and pectoral muscles, possibly back and thighs)
- Excess body hair and/or accelerated [baldness](#)
- High blood pressure
- Injection site swelling, tenderness and/or redness
- Tendon and muscle tears
- Abnormal blood lipids
- Abnormal liver function
- [Gynaecomastia](#)
- [Erectile dysfunction](#)
- [Male infertility](#)
- Testicular atrophy (shrinkage of the testes)

Psychological signs of steroid abuse:

- Aggression
- Impulsivity
- Altered [sex drive](#)
- Anxiety
- Dysphoria
- Depression
- Empathy disorder
- Jealousy
- [Muscle dysmorphia](#)

- Mood instability
- Panic attack
- Psychosis
- Reduced mentalising capacity (problems with thinking)
- Sleep disorders
- Suicidal ideation
- Suicide attempt
- Violence
- Worry

Health effects of steroid abuse

Brain and behaviour

- Getting annoyed or agitated easily
- Feeling anxious or on edge
- Acting in a confrontational or hostile way
- Behaving without thinking about the consequences
- Self-harm
- Needing steroids to function normally
- Depression
- Suicidal thoughts
- Withdrawal syndrome

Blood and circulation

- Too many red blood cells in the circulation
- Abnormal blood cholesterol levels
- Narrowing or blockage of blood vessels supplying the heart muscle
- Heart attack
- High blood pressure
- Irregular or abnormal heart rhythm
- Abnormal thickening of the heart muscle
- Abnormal enlargement and weakening of the heart chambers
- Reduced ability of the heart to pump blood
- Sudden heart failure

Liver

- Reduced or blocked flow of bile
- High levels of bilirubin (a breakdown product of red blood cells) in the blood
- Buildup of fat in liver cells
- Blood-filled cysts in the liver
- Non-cancerous growths in the liver
- Liver cancer
- Unconsciousness caused by severely poor liver function

Skin

- Acne
- Stretch marks
- Excessive sweating
- Hair loss from the head
- Excessive growth of body hair
- Infection or inflammation of injection sites

Kidneys

- High levels of metabolic waste products (e.g. creatinine) in the blood
- Kidney damage caused by the buildup of bile
- Scarring of small parts of the kidneys where blood is filtered
- Kidney failure

Reproductive system

- Shrinking of the testes
- Low sperm production
- [Infertility](#)
- [Low sex drive](#)
- [Erectile dysfunction](#)
- [Growth of breast tissue](#)
- Impaired function of the testes

Steroid dependence

Misuse or abuse of steroids reduces the body's own production of testosterone due to its [negative feedback system](#). When you stop steroid misuse or abuse, it takes your body [weeks to months](#) to get back to making its own testosterone.

Steroid abusers show [signs of addiction](#), like withdrawal, cravings and loss of control. Psychological dependence on steroids and the [effects of withdrawal](#) (headache,

tiredness, nausea, muscle pain, restlessness, poor sleep, low mood, low sex drive, [body dysmorphism](#) and suicidal thoughts) make it difficult to stop steroid abuse. The [same scenario](#) occurs with androgen misuse.

Stopping steroid misuse or abuse

Steroid dependence makes it difficult to stop misusing or abusing steroids, but stopping is necessary if you [want to have children](#) or if you develop [health problems](#) caused by abuse or misuse.

Methods described online for 'post-cycle therapy' or to 'restart' testosterone production are [not proven to be safe or to work](#), and are not based on scientific evidence.

What to do about steroid misuse or abuse

You should visit a doctor to discuss the best way for you to stop steroid abuse or misuse.

What questions should I ask my doctor about steroid misuse or abuse?

- Can you check to see if taking steroids is affecting my health?
- What is the easiest way for me to stop taking steroids?
- How long will it take to get back to normal?
- Are there symptoms I should look out for because of my steroid use?

Email these questions to yourself to take into your doctor's appointment.

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Medically reviewed by

A/Prof Tim Moss

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