PERFORMANCE AND IMAGE-ENHANCING DRUGS

WHAT YOU NEED TO KNOW

Australian Government
Department of Health

WHAT ARE PERFORMANCE AND IMAGE-ENHANCING DRUGS? [1, 2, 3, 4]

Performance and image-enhancing drugs are substances that are used in an attempt to change or enhance a person's appearance or abilities, either through muscle growth (anabolic effects) or by reducing body fat (catabolic effects). The expected benefits of using these substances include increasing the size and definition of muscles, reducing water retention and body fat, and increasing physical strength and endurance.

The primary substances that are used for this purpose are:

- Human and veterinary anabolic and androgenic steroids
- Human growth hormone
- Other reproductive hormones
- Diuretics
- Amphetamines/stimulants
- Anti-oestrogenic agents
- Beta-2 agonists (e.g. clenbuterol)
- Hormones such as insulin

Performance and Image-Enhancing Drugs are sometimes referred to as steroids, roids, juice, and gear.

HOW MANY YOUNG PEOPLE IN AUSTRALIA USE PERFORMANCE AND IMAGE-ENHANCING DRUGS/STEROIDS? [5,6]

According to the 2014 Australian secondary schools' survey, 1 in 56 (1.8%) young people aged 12-17 used performance or image-enhancing drugs, such as anabolic-androgenic steroids in the past year.

The 2016 National Drug Strategy Household survey reported that less than 0.1% of people aged 14 and older used steroids in the past year.

WHAT ARE ANABOLIC-ANDROGENIC STEROIDS [3]

Anabolic-androgenic steroids are the most commonly used performance and image-enhancing drugs. Anabolic-androgenic steroids include male hormones such as testosterone that are responsible for characteristics like body hair, deepening of the voice, development of the male sex organs and sex drive. They assist in the growth and repair of tissues, mainly skeletal muscles ('anabolic' effects) and bones. They also have an effect on the development and maintenance of male sex characteristics ('androgenic' effects). There are a number of different brand names of anabolic-androgenic steroids, which differ slightly in chemical structure. They are taken orally, some injected and some are gels or creams that are rubbed on the skin. Anabolic-androgenic steroids were developed to treat specific medical conditions and for veterinary medicine, but use outside of formal medical supervision carries risks.

WHAT ARE THE EFFECTS? [4, 7, 8, 9, 10, 11, 12]

Initially, use of anabolic-androgenic steroids results in mood changes, such as euphoria, increased confidence and self-esteem, greater energy and motivation to train harder. Fatigue is lessened and users may experience sleeplessness. Libido may be increased or decreased.

The effects of anabolic-androgenic steroids use can be short term or long term, and may include:

Physical	Psychological
Acne High blood pressure Liver problems Heart problems Increased cholesterol levels Hair loss / baldness Sleeplessness Headaches Tendon injuries Permanent short stature in adolescents Tendon / ligament damage Water retention Specifically for men: Gynaecomastia (abnormal growth of breasts) Shrinking testicles Prostate problems Specifically for women: Clitoral enlargement Smaller breasts Deepening of the voice Specifically for young people: Stunted growth (when high hormone levels from steroids signal to the body to stop bone growth too early) Stunted height (if teens use steroids before their growth spurt)	Increased aggression (e.g. “roid rage”) Increased irritability Mood swings Mania Depression Dependence

WHAT ARE THE RISKS? [3, 12, 13, 14, 15, 16]

Most performance and image-enhancing drugs mimic hormones and their precursors, so the most likely harms from using these substances will come from disrupting the body’s normal hormonal and metabolic balance. For young people, the risk of side effects is increased because the substances are being used while they are still growing.

There is an active black market in anabolic-androgenic steroids and in addition to the legitimate anabolic-androgenic steroids for medical use, there are imitations which may have few, if any, active ingredients and carry the risk of contamination. Some unsterile and dangerous counterfeits have also been reported.

Where needles, vials or other equipment are shared, there may be traces of blood, increasing the risk of transmission of blood-borne viruses (such as hepatitis c virus or HIV). Where the skin has not been properly cleaned, dirt or bacteria may inadvertently enter the bloodstream, carrying risk of infection, inflammation and damage to blood vessels. Injecting an unsterile substance also carries risks of infection or poisoning. Anabolic-androgenic steroids are injected into muscles, unlike other injected drugs which are generally injected into veins. Muscular injections are of a greater volume and large needles are used, and swelling,

redness and discomfort at the injection site are commonly reported. Injecting into small muscle groups increases the risks of injecting into nerves.

Many of these negative effects may be temporary (while using) and may be reversible following an anabolic-androgenic steroids-free period. However, others may be permanent (such as stunted growth when used in adolescence).

ARE ANABOLIC-ANDROGENIC STEROIDS ILLEGAL IN AUSTRALIA?

It is illegal to manufacture, import, possess, use or supply anabolic-androgenic steroids without a legitimate medical prescription or medical practitioner licence in New South Wales. AAS are banned under the Olympic Movement's World Anti-Doping Code Prohibited List of substances and prohibited methods. However, there are a range of animal and human steroids being diverted to the black market and distributed for illegal use.

ARE ANABOLIC-ANDROGENIC STEROIDS ADDICTIVE? [3, 11]

It is possible to become physically and psychologically dependent on (addicted to) anabolic-androgenic steroids. Most commonly, anabolic-androgenic steroids tend to be used in 6-12 week cycles followed by rest periods of equal length or longer – which is a different pattern of use to other drugs of dependence. People who are dependent on anabolic-androgenic steroids tend to take far greater weekly doses of steroids and have significantly shorter rest periods than users who are not dependent on anabolic-androgenic steroids. Dependent users are also more likely to experience a range of side-effects (described above) compared to non-dependent users. Some people may use anabolic-androgenic steroids because they have low self-confidence or are dissatisfied with their appearance, but not all users do so for these reasons. Similarly, some people who use anabolic-androgenic steroids take large doses and spend significant time exercising obsessively (particularly weight training) which can lead to strained relationships, social difficulties and problems at work.

WITHDRAWAL [7, 8]

Regular anabolic-androgenic steroids users may experience a need or craving if they stop taking the drug. Withdrawal symptoms can be both physiological and psychological. These may include reduced muscle size and strength, decreased libido, fatigue and feeling depressed, nervous, angry or irritable.

OVERDOSE [8, 9]

People who used anabolic-androgenic steroids typically use doses of testosterone that far exceed natural concentrations in the body. Anabolic-androgenic steroids (particularly used in these high doses outside medical guidance) may cause irreversible cardiotoxicity (i.e. muscle damage to the heart) when used in high doses for prolonged periods. Anabolic-androgenic steroids use has also been associated with liver toxicity.

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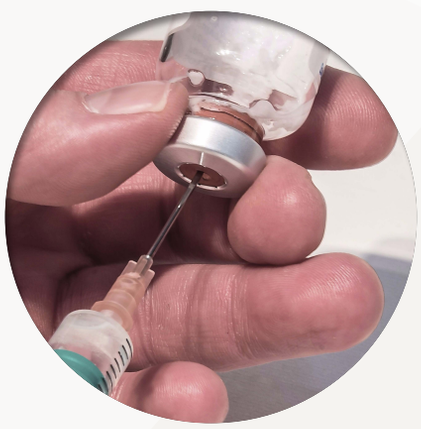

FOR MORE INFORMATION

We have listed some of the national telephone helplines and websites below.

For free and confidential advice about alcohol and other drugs, call the
National Alcohol and Other Drug Hotline
1800 250 015

It will automatically direct you to the Alcohol and Drug Information Service in your state or territory. These local alcohol and other drug telephone services offer support, information, counselling and referral to services.

Australian Drug Foundation
Provides information about drugs and links to services in each state and territory
www.adf.org.au

DrugInfo Line
Provides information about drugs and alcohol. Open 9am–5pm, Monday to Friday
1300 85 85 84 or **03 8672 5983**. Or visit **www.druginfo.adf.org.au**

Just Ask Us
Provides information about drugs, alcohol, health and well-being
www.justaskus.org.au

Kids Helpline
Free, private and confidential telephone and online counselling service for young people aged 5–25 years
Open 24 Hours **1800 55 1800**

Lifeline
24 hour crisis line **131114**
Also available is one-on-one chatlines for crisis support, visit
www.lifeline.org.au/Find-Help/Online-Services/crisis-chat

Counselling Online
Free, confidential counselling service for people using drugs, their families and friends
www.counsellingonline.org.au

National Drugs Campaign
Australian Government website provides information about illicit drugs and campaign resources.
www.australia.gov.au/drugs

Family Drug Support
For families and friends of people who use drugs or alcohol
1300 368 186

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