

COMMONLY-ABUSED **PERFORMANCE ENHANCING DRUGS**

Anabolic Agents

Prohibited at all times (both in- and out-of-competition)

Anabolic agents (e.g. steroids) are synthetically produced substances which mimic the effects of testosterone (a hormone naturally derived in the body). Anabolic steroids increase protein synthesis, enhance muscle and bone growth. They also have androgenic effects, including the development and maintenance of masculine characteristics such as the growth of the vocal cords and body hair.

★ Side Effects

Steroids can impose serious side effects on a person's health. Most of these side effects are dose-dependent. In general, steroids increase the risk of cardiovascular disease, liver disease, and high blood pressure. Common psychological/behavioral changes include mood swings, aggression, mania, depression, and dependence. Using steroids may result in acne and permanent baldness. For male users, it also leads to breast tissue development, shrinking of testicles and decrease in sperm production. In females, steroids can cause the growth of facial hair, deepening of the voice and abnormal menstrual cycles. In children, administration of steroids can cause stunting of growth and pre-mature puberty.

Anti-doping programmes seek to protect the health of athletes and to provide

the opportunity for athletes to pursue human excellence without the use of

prohibited substances and prohibited methods. Health is on the top of the list

The Prohibited List is published by the World Anti-Doping

Agency (WADA) annually, identifying the substances and

methods prohibited in- and out-of-competition, in particular

Any substances or methods meeting the following criteria could

- Potential to enhance sport performance:

- The use violates the spirit of sport.

- The use represents actual or potential health risk;

Potential to mask the use of prohibited substances and

HEALTH RISKS

should be prescribed by physicians only. It will pose serious health risks if athletes use these substances when it is not

Some PEDs can create both physical and psychological dependence. Withdrawal symptoms may occur when the drug is discontinued.

THE PROHIBITED LIST

of rationales for the World Anti-Doping Code.

sports and the substances of abuse.

be included on the Prohibited List.

prohibited methods

Two of these criteria are met:

🔏 Stimulants Prohibited in-competition only

Stimulants (e.g. amphetamine and cocaine) are substances that act on the central nervous system. Stimulants can increase alertness, reduce tiredness, increase competitiveness and aggression in athletes

★ Side Effects

The use of stimulants can lead to dehydration, anxiety, insomnia and increased heart rate. It also affects the coordination and balance. Prolonged use may increase the risk of cardiovascular problems and stroke.

Prohibited at all times (both in- and out-of-competition)

Erythropoietin

Erythropoietin (EPO) is a peptide hormone produced by the body that stimulates the production of red blood cells. EPO can stimulate the bone marrow to produce more red blood cells in order to increase the oxygen carrying capacity of the blood. The use of EPO can increase exercise endurance and reduce recovery time.

★ Side Effects

EPO makes the blood more viscous and causes blood pressure to rise. It will increase the risk of heart attack, stroke and pulmonary embolism, which may result in death.

Cannabinoids

Prohibited in-competition only

Cannabinoids are substances that can be found in the dried flowers, leaves or resin of the Cannabis plant. Cannabis produces the feeling of euphoria and relaxation.

★ Side Effects

The use of cannabis affects the brain which causes mood swings, feelings of anxiety or paranoia. It also reduces memory and ability to concentrate. Other effects on the body include impaired balance and co-ordination, drowsiness and dryness of mouth. Long term risks of cannabis use may include weakened immune system, increased risk of lung, mouth, tongue, and throat cancer.

OTHER COMMON PROHIBITED SUBSTANCES/ PROHIBITED METHODS AND THEIR POTENTIAL SIDE EFFECTS

 Substances and Methods Prohibited at All Times (In- and Out-of-competition)

Substance	Potential Side Effects
Beta-2 Agonists	Increased heart rate and blood pressure sweating, nausea and tremors
Hormone and Metabolic Modulators (e.g. Anti-estrogenic Substances)	Hot flushes, sweating, insomnia and osteoporosis
Diuretics and Other Masking Agents	Dehydration, muscle cramps, drop in blood pressure, electrolyte imbalance, dizziness or fainting

Method **Potential Side Effects** Increased risk of infection, development Manipulation of Blood of blood clot, heart attacks, strokes and and Blood Components pulmonary embolism The technology is new and dangerous. Gene and cell doping Side effects are unpredictable

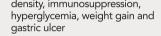
Substances prohibited in-competition only

Increase pain threshold and failure to recognize injury, weakened immune system, decreased heart rate and suppressed respiratory system Loss in balance, coordination and concentration

Highly addictive leading to physical and psychological dependence

Potential Side Effects

Glucocorticoids Loss of muscle mass, reduced bone density, immunosuppression,





Substance

Narcotics

Substances prohibited in particular sports

Substance	Potential Side Effects
Beta-Blockers	Lowered blood pressure, slow heart rate

Fatigue, depression, sexual dysfunction

This is not the full list. For complete and detailed information, please refer to the current Prohibited List (the List can be downloaded on ADOHK website)

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ANTI-DOPING ORGANIZATION OF HONG KONG, CHINA











