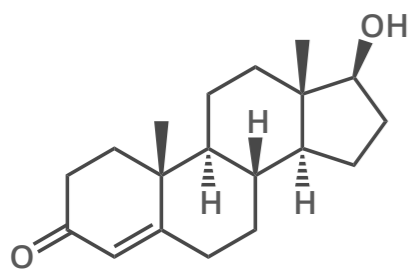


# A BRIEF GUIDE TO DOPING IN SPORTS

Doping in sports has been in the news in the run up to the Olympics. What drugs will doping tests at the Olympics be looking for? This graphic looks at some of the major groups of drugs used in doping, their effects, and why athletes might take them.

## ANABOLIC AGENTS



TESTOSTERONE



MUSCLE MASS & STRENGTH

74

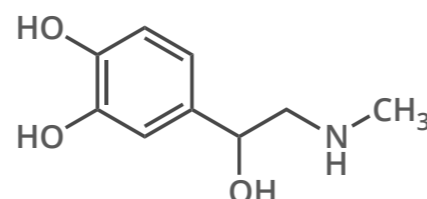
NO. OF NAMED BANNED AGENTS

48%

% OF POSITIVE TESTS IN 2014

The largest class of prohibited drugs, and the most commonly detected. Anabolic steroids mimic the hormone testosterone, increasing muscle mass and physical strength. This class also includes some non-steroidal drugs. They have a range of side effects.

## STIMULANTS



ADRENALINE



ALERTNESS AND ENERGY

66

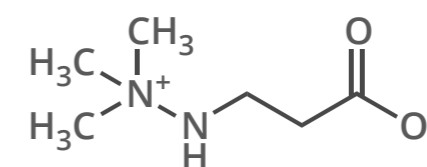
NO. OF NAMED BANNED AGENTS

15%

% OF POSITIVE TESTS IN 2014

Stimulants are used to improve alertness, attention, and energy. Many behave similarly to the hormones adrenaline and noradrenaline. They include amphetamines. Taking them can increase blood pressure and cause cardiac problems.

## HORMONES AND MODULATORS



MELDONIUM



AFFECT HORMONES/METABOLISM

20

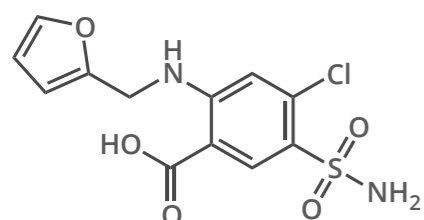
NO. OF NAMED BANNED AGENTS

5%

% OF POSITIVE TESTS IN 2014

A range of drugs which generally interfere with human hormones. They can be used with anabolic steroids, to suppress some of the undesirable effects of these drugs. Some affect oestrogen levels in the body, whereas others affect human metabolism.

## DIURETICS AND MASKING AGENTS



FUROSEMIDE



HELP TO CONCEAL DOPING

22

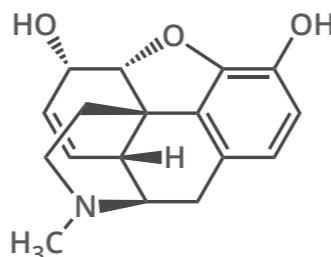
NO. OF NAMED BANNED AGENTS

13%

% OF POSITIVE TESTS IN 2014

Diuretics remove fluids from the body and can be used by athletes to regulate their body mass, as well as diluting urine so lower levels of banned substances are registered in tests. Masking agents are drugs taken to conceal the presence of illegal drugs in urine samples.

## NARCOTICS



MORPHINE



INCREASE PAIN TOLERANCE

11

NO. OF NAMED BANNED AGENTS

11

% OF POSITIVE TESTS IN 2014

This class includes narcotic analgesics such as morphine and codeine which can enhance performance by increasing a competitor's tolerance to pain. They can also reduce anxiety which can be advantageous in some sports.

## OTHER BANNED SUBSTANCES



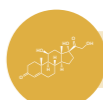
ERYTHROPOIETIN (EPO)



BETA-BLOCKER DRUGS



ALCOHOL (IN-COMPETITION)



GLUCOCORTICOSTEROIDS



CANNABIS & CANNABINOIDS



BETA-2 AGONIST DRUGS

Many more substances are banned, including EPO, which promotes red blood cell production, getting oxygen to muscles more effectively. Some substances, such as alcohol and beta-blockers, are only prohibited in-competition for some sports.

