



# The World Anti-Doping Code

# THE 2005 PROHIBITED LIST INTERNATIONAL STANDARD

The official text of the *Prohibited List* shall be maintained by WADA and shall be published in English and French. In the event of any conflict between the English and French versions, the English version shall prevail.

This List shall come into effect on 1 January 2005.

# THE 2005 PROHIBITED LIST WORLD ANTI-DOPING CODE

Valid 1 January 2005

The use of any drug should be limited to medically justified indications

## SUBSTANCES AND METHODS PROHIBITED AT ALL TIMES (IN- AND OUT-OF-COMPETITION)

### PROHIBITED SUBSTANCES

#### S1. ANABOLIC AGENTS

Anabolic agents are prohibited.

##### 1. Anabolic Androgenic Steroids (AAS)

a. Exogenous\* AAS, including:

**18 $\alpha$ -homo-17 $\beta$ -hydroxyestr-4-en-3-one; bolasterone; boldenone; boldione; calusterone; clostebol; danazol; dehydrochloromethyl-testosterone; delta1-androstene-3,17-dione; delta1-androstenediol; delta1-dihydro-testosterone; drostanolone; ethylestrenol; fluoxymesterone; formebolone; furazabol; gestrinone; 4-hydroxytestosterone; 4-hydroxy-19-nortestosterone; mestanolone; mesterolone; metenolone; methandienone; methandriol; methyldienolone; methyltrienolone; methyltestosterone; mibolerone; nandrolone; 19-norandrostenediol; 19-norandrostenedione; norbolethone; norclostebol; norethandrolone; oxabolone; oxandrolone; oxymesterone; oxymetholone; quinbolone; stanozolol; stenbolone; tetrahydrogestrinone; trenbolone** and other substances with a similar chemical structure or similar biological effect(s).

b. Endogenous\*\* AAS:

**androstenediol (androst-5-ene-3 $\beta$ ,17 $\beta$ -diol); androstenedione (androst-4-ene-3,17-dione); dehydroepiandrosterone (DHEA); dihydrotestosterone; testosterone.**

and the following metabolites and isomers:

**5 $\alpha$ -androstane-3 $\alpha$ ,17 $\alpha$ -diol; 5 $\alpha$ -androstane-3 $\alpha$ ,17 $\beta$ -diol; 5 $\alpha$ -androstane-3 $\beta$ ,17 $\alpha$ -diol; 5 $\alpha$ -androstane-3 $\beta$ ,17 $\beta$ -diol; androst-4-ene-3 $\alpha$ ,17 $\alpha$ -diol; androst-4-ene-3 $\alpha$ ,17 $\beta$ -diol; androst-4-ene-3 $\beta$ ,17 $\alpha$ -diol; androst-5-ene-3 $\alpha$ ,17 $\alpha$ -diol; androst-5-ene-3 $\alpha$ ,17 $\beta$ -diol; androst-5-ene-3 $\beta$ ,17 $\alpha$ -diol; 4-androstenediol (androst-4-ene-3 $\beta$ ,17 $\beta$ -diol); 5-androstenedione (androst-5-ene-3,17-dione); epi-dihydrotestosterone; 3 $\alpha$ -hydroxy-5 $\alpha$ -androstan-17-one; 3 $\beta$ -hydroxy-5 $\alpha$ -androstan-17-one; 19-norandrosterone; 19-noretiocholanolone.**

Where a *Prohibited Substance* (as listed above) is capable of being produced by the body naturally, a *Sample* will be deemed to contain such *Prohibited Substance* where the concentration of the *Prohibited Substance* or its metabolites or markers and/or any other relevant ratio(s) in the *Athlete's Sample* so deviates from the range of values normally found in humans that it is unlikely to be consistent with normal endogenous production. A *Sample* shall not be deemed to contain a *Prohibited Substance* in any such case where the *Athlete* proves by evidence that the concentration of the *Prohibited Substance* or its metabolites or markers and/or the relevant ratio(s) in the *Athlete's Sample* is attributable to a physiological or pathological condition. In all cases, and at any concentration, the laboratory will report an *Adverse Analytical Finding* if, based on any reliable analytical method, it can show that the *Prohibited Substance* is of exogenous origin.

If the laboratory result is not conclusive and no concentration as referred to in the above paragraph is found, the relevant *Anti-Doping Organization* shall conduct a further investigation if there are serious indications, such as a comparison to reference steroid profiles, for a possible *Use of a Prohibited Substance*.

If the laboratory has reported the presence of a T/E ratio greater than four (4) to one (1) in the urine, further investigation is obligatory in order to determine whether the ratio is due to a physiological or pathological condition, except if the laboratory reports an *Adverse Analytical Finding* based on any reliable analytical method, showing that the *Prohibited Substance* is of exogenous origin.

In case of an investigation, it will include a review of any previous and/or subsequent tests. If previous tests are not available, the *Athlete* shall be tested unannounced at least three times within a three month period.

Should an *Athlete* fail to cooperate in the investigations, the *Athlete's Sample* shall be deemed to contain a *Prohibited Substance*.

## 2. Other Anabolic Agents, including but not limited to:

**Clenbuterol, zeranol, zilpaterol.**

*For purposes of this section:*

\* "exogenous" refers to a substance which is not capable of being produced by the body naturally.

\*\* "endogenous" refers to a substance which is capable of being produced by the body naturally.

## **S2. HORMONES AND RELATED SUBSTANCES**

The following substances, including other substances with a similar chemical structure or similar biological effect(s), and their releasing factors, are prohibited:

1. **Erythropoietin (EPO);**
2. **Growth Hormone (hGH), Insulin-like Growth Factor (IGF-1), Mechano Growth Factors (MGFs);**
3. **Gonadotrophins (LH, hCG);**
4. **Insulin;**
5. **Corticotrophins.**

Unless the *Athlete* can demonstrate that the concentration was due to a physiological or pathological condition, a *Sample* will be deemed to contain a *Prohibited Substance* (as listed above) where the concentration of the *Prohibited Substance* or its metabolites and/or relevant ratios or markers in the *Athlete's Sample* so exceeds the range of values normally found in humans so that it is unlikely to be consistent with normal endogenous production.

The presence of other substances with a similar chemical structure or similar biological effect(s), diagnostic marker(s) or releasing factors of a hormone listed above or of any other finding which indicate(s) that the substance detected is of exogenous origin, will be reported as an *Adverse Analytical Finding*.

## **S3. BETA-2 AGONISTS**

All beta-2 agonists including their D- and L-isomers are prohibited. Their use requires a Therapeutic Use Exemption.

As an exception, formoterol, salbutamol, salmeterol and terbutaline, when administered by inhalation to prevent and/or treat asthma and exercise-induced asthma/broncho-constriction require an abbreviated Therapeutic Use Exemption.

Despite the granting of a Therapeutic Use Exemption, when the Laboratory has reported a concentration of salbutamol (free plus glucuronide) greater than 1000 ng/mL, this will be considered as an *Adverse Analytical Finding* unless the athlete proves that the abnormal result was the consequence of the therapeutic use of inhaled salbutamol.

#### **S4. AGENTS WITH ANTI-ESTROGENIC ACTIVITY**

The following classes of anti-estrogenic substances are prohibited:

- 1. Aromatase inhibitors including, but not limited to, anastrozole, letrozole, aminoglutethimide, exemestane, formestane, testolactone.**
- 2. Selective Estrogen Receptor Modulators (SERMs) including, but not limited to, raloxifene, tamoxifen, toremifene.**
- 3. Other anti-estrogenic substances including, but not limited to, clomiphene, cyclofenil, fulvestrant.**

#### **S5. DIURETICS AND OTHER MASKING AGENTS**

Diuretics and other masking agents are prohibited.

Masking agents include but are not limited to:

**Diuretics<sup>\*</sup>, epitestosterone, probenecid, alpha-reductase inhibitors (e.g. finasteride, dutasteride), plasma expanders (e.g. albumin, dextran, hydroxyethyl starch).**

Diuretics include:

**acetazolamide, amiloride, bumetanide, canrenone, chlortalidone, etacrynic acid, furosemide, indapamide, metolazone, spironolactone, thiazides (e.g. bendroflumethiazide, chlorothiazide, hydrochlorothiazide), triamterene,** and other substances with a similar chemical structure or similar biological effect(s).

\* A Therapeutic Use Exemption is not valid if an *Athlete's* urine contains a diuretic in association with threshold or sub-threshold levels of a *Prohibited Substance(s)*.

# PROHIBITED METHODS

## **M1. ENHANCEMENT OF OXYGEN TRANSFER**

The following are prohibited:

- a. Blood doping, including the use of autologous, homologous or heterologous blood or red blood cell products of any origin, other than for medical treatment.
- b. Artificially enhancing the uptake, transport or delivery of oxygen, including but not limited to perfluorochemicals, efaproxiral (RSR13) and modified haemoglobin products (e.g. haemoglobin-based blood substitutes, microencapsulated haemoglobin products).

## **M2. CHEMICAL AND PHYSICAL MANIPULATION**

The following is prohibited:

*Tampering*, or attempting to tamper, in order to alter the integrity and validity of *Samples* collected in *Doping Controls*.

These include but are not limited to intravenous infusions\*, catheterisation, and urine substitution.

\* Except as a legitimate acute medical treatment, intravenous infusions are prohibited.

## **M3. GENE DOPING**

The non-therapeutic use of cells, genes, genetic elements, or of the modulation of gene expression, having the capacity to enhance athletic performance, is prohibited.

# SUBSTANCES AND METHODS PROHIBITED IN-COMPETITION

**In addition to the categories S1 to S5 and M1 to M3 defined above,  
the following categories are prohibited in competition:**

## PROHIBITED SUBSTANCES

### **S6. STIMULANTS**

The following stimulants are prohibited, including both their optical (D- and L-) isomers where relevant:

**Adrafinil, amfepramone, amiphenazole, amphetamine, amphetaminil, benzphetamine, bromantan, carphedon, cathine<sup>\*</sup>, clobenzorex, cocaine, dimethylamphetamine, ephedrine<sup>\*\*</sup>, etilamphetamine, etilefrine, famprofazone, fencamfamin, fencamine, fenetylline, fenfluramine, fenproporex, furfenorex, mefenorex, mephentermine, mesocarb, methamphetamine, methylamphetamine, methylenedioxyamphetamine, methylenedioxymethamphetamine, methylephedrine<sup>\*\*</sup>, methylphenidate, modafinil, nikethamide, norfenfluramine, parahydroxyamphetamine, pemoline, phendimetrazine, phenmetrazine, phentermine, prolintane, selegiline, strychnine,** and other substances with a similar chemical structure or similar biological effect(s)<sup>\*\*\*</sup>.

\* **Cathine** is prohibited when its concentration in urine is greater than 5 micrograms per milliliter.

\*\* Each of **ephedrine** and **methylephedrine** is prohibited when its concentration in urine is greater than 10 micrograms per milliliter.

\*\*\* The substances included in the 2005 Monitoring Program (bupropion, caffeine, phenylephrine, phenylpropanolamine, pipradrol, pseudoephedrine, synephrine) are not considered as Prohibited Substances.

NOTE: Adrenaline associated with local anaesthetic agents or by local administration (e.g. nasal, ophthalmologic) is not prohibited.

## **S7. NARCOTICS**

The following narcotics are prohibited:

**buprenorphine, dextromoramide, diamorphine (heroin), fentanyl and its derivatives, hydromorphone, methadone, morphine, oxycodone, oxymorphone, pentazocine, pethidine.**

## **S8. CANNABINOIDS**

Cannabinoids (e.g. hashish, marijuana) are prohibited.

## **S9. GLUCOCORTICOSTEROIDS**

All glucocorticosteroids are prohibited when administered orally, rectally, intravenously or intramuscularly. Their use requires a Therapeutic Use Exemption approval.

All other routes of administration require an abbreviated Therapeutic Use Exemption.

Dermatological preparations are not prohibited.



# SUBSTANCES PROHIBITED IN PARTICULAR SPORTS

## **P1. ALCOHOL**

Alcohol (ethanol) is prohibited *in-Competition* only, in the following sports. Detection will be conducted by analysis of breath and/or blood. The doping violation threshold for each Federation is reported in parenthesis.

- |                    |            |                                    |            |
|--------------------|------------|------------------------------------|------------|
| • Aeronautic (FAI) | (0.20 g/L) | • Karate (WKF)                     | (0.10 g/L) |
| • Archery (FITA)   | (0.10 g/L) | • Modern Pentathlon (UIPM)         | (0.10 g/L) |
| • Automobile (FIA) | (0.10 g/L) | for disciplines involving shooting |            |
| • Billiards (WCBS) | (0.20 g/L) | • Motorcycling (FIM)               | (0.00 g/L) |
| • Boules (CMSB)    | (0.10 g/L) | • Skiing (FIS)                     | (0.10 g/L) |

## **P2. BETA-BLOCKERS**

Unless otherwise specified, beta-blockers are prohibited *in-Competition* only, in the following sports.

- |   |  |
|---|--|
| • Aeronautic (FAI)  | • Modern Pentathlon (UIPM) for disciplines involving shooting  |
| • Archery (FITA) (also prohibited <i>out-of-competition</i> ) | • Nine-pin bowling (FIQ)                                       |
| • Automobile (FIA)  | • Sailing (ISAF) for match race helms only                     |
| • Billiards (WCBS)  | • Shooting (ISSF) (also prohibited <i>out-of-competition</i> ) |
| • Bobsleigh (FIBT)  | • Skiing (FIS) in ski jumping & free style snow board          |
| • Boules (CMSB)   | • Swimming (FINA) in diving & synchronised swimming            |
| • Bridge (FMB)  | • Wrestling (FILA)   |
| • Chess (FIDE)  |  |
| • Curling (WCF)   |  |
| • Gymnastics (FIG)  |  |
| • Motorcycling (FIM)  |  |

Beta-blockers include, but are not limited to, the following:

**acebutolol, alprenolol, atenolol, betaxolol, bisoprolol, bunolol, carteolol, carvedilol, celiprolol, esmolol, labetalol, levobunolol, metipranolol, metoprolol, nadolol, oxprenolol, pindolol, propranolol, sotalol, timolol.**

## SPECIFIED SUBSTANCES\*

"Specified Substances"\* are listed below:

Ephedrine, L-methylamphetamine, methylephedrine;  
Cannabinoids;  
All inhaled Beta-2 Agonists, except clenbuterol;  
Probenecid;  
All Glucocorticosteroids;  
All Beta Blockers;  
Alcohol.

\* *"The Prohibited List may identify specified substances which are particularly susceptible to unintentional anti-doping rule violations because of their general availability in medicinal products or which are less likely to be successfully abused as doping agents." A doping violation involving such substances may result in a reduced sanction provided that the "...Athlete can establish that the Use of such a specified substance was not intended to enhance sport performance..."*