



# 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\* , 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..."*