

# PART TWO: THE 2004 PROHIBITED LIST

## WORLD ANTI-DOPING CODE

### PROHIBITED LIST

Valid 1<sup>st</sup> January 2004

#### SUBSTANCES AND METHODS PROHIBITED IN-COMPETITION

### PROHIBITED SUBSTANCES

#### S1. 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, fencamfamin, 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 similar chemical structure or similar pharmacological effects<sup>\*\*\*</sup>.

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

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

\*\*\* The substances included in the 2004 Monitoring Program are not considered as Prohibited Substances.

## **S2. NARCOTICS**

The following narcotics are prohibited:

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

## **S3. CANNABINOIDS**

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

## **S4. ANABOLIC AGENTS**

Anabolic agents are prohibited.

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

a. Exogenous\* AAS including but not limited to:

**androstadienone, bolasterone, boldenone, boldione, clostebol, danazol, dehydrochloromethyltestosterone, delta1-androstene-3,17-dione, drostanolone, drostanediol, fluoxymesterone, formebolone, gestrinone, 4-hydroxytestosterone, 4-hydroxy-19-nortestosterone, mestenolone, mesterolone, methandienone, metenolone, methandriol, methyltestosterone, mibolerone, nandrolone, 19-norandrostenediol, 19-norandrostenedione, norbolethone, norethandrolone, oxabolone, oxandrolone, oxymesterone, oxymetholone, quinbolone, stanozolol, stenbolone, 1-testosterone (delta1-dihydro-testosterone), trenbolone and their analogues#.**

b. Endogenous\*\* AAS including but not limited to:

**androstenediol, androstenedione, dehydroepiandrosterone (DHEA), dihydrotestosterone, testosterone and their analogues#.**

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 so as not 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 pathological or

physiological condition. In all cases, and at any concentration, the laboratory will report an adverse 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 six (6) 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.

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

Failure of the *Athlete* to co-operate in the investigations will result in considering the *Athlete's Sample* to contain a *Prohibited Substance*.

## **2. Other Anabolic Agents**

**Clenbuterol, zeranol.**

*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.*

# *an "analogue" is defined as "a substance derived from the modification or alteration of the chemical structure of another substance while retaining a similar pharmacological effect."*

## **S5. PEPTIDE HORMONES**

The following substances are prohibited, including their mimetics\*, analogues# and releasing factors:

- 1. Erythropoietin (EPO)**
- 2. Growth hormone (hGH) and Insulin-like Growth Factor (IGF-1)**
- 3. Chorionic Gonadotrophin (hCG)** prohibited in males only;
- 4. Pituitary and synthetic gonadotrophins (LH)** prohibited in males only;
- 5. Insulin.**
- 6. 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 as not to be consistent with normal endogenous production.

The presence of analogues, mimetics, diagnostic marker(s) or releasing factors of a hormone listed above or of any other finding which indicate(s) that the substance detected is not the naturally present hormone, will be reported as an adverse analytical finding.

*For purposes of this section:*

*\* a "mimetic" is defined as a substance with pharmacological effect similar to that of another substance, regardless of the fact that it has a different chemical structure.*

*# an "analogue" is defined as "a substance derived from the modification or alteration of the chemical structure of another substance while retaining a similar pharmacological effect."*

## **S6. BETA-2 AGONISTS**

All beta-2 agonists including their D- and L- isomers are prohibited except that formoterol, salbutamol, salmeterol and terbutaline are permitted by inhalation only to prevent and/or treat asthma and exercise-induced asthma/broncho-constriction. A medical notification in accordance with section 8 of the International Standard for Therapeutic Use Exemptions is required.

Despite the granting of a TUE, 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.

## **S7. AGENTS WITH ANTI-OESTROGENIC ACTIVITY**

**Aromatase inhibitors, clomiphene, cyclofenil, tamoxifen** are prohibited only in males.

## **S8. MASKING AGENTS**

Masking agents are prohibited. They are products that have the potential to impair the excretion of *Prohibited Substances*, to conceal their presence in urine or other *Samples* used in doping control, or to change haematological parameters. Masking agents include but are not limited to:

**Diuretics<sup>\*</sup>, epitestosterone, probenecid, plasma expanders (e.g. dextran, hydroxyethyl starch.)**

\*A medical approval in accordance with section 7 of the International Standard for Therapeutic Use Exemptions is not valid if an *Athlete's* urine contains a diuretic in association with threshold or sub-threshold levels of a *Prohibited Substance(s)*.

Diuretics include :

**acetazolamide, amiloride, bumetanide, canrenone, chlortalidone, etacrynic acid, furosemide, indapamide, mersalyl, spironolactone, thiazides (e.g. bendroflumethiazide, chlorothiazide, hydrochlorothiazide) and triamterene**, and other substances with similar chemical structure or similar pharmacological effects.

## **S.9 GLUCOCORTICOSTEROIDS**

Glucocorticosteroids are prohibited when administered orally, rectally, or by intravenous or intramuscular administration.

All other administration routes require a medical notification in accordance with section 8 of the International Standard for Therapeutic Use Exemptions.

## PROHIBITED METHODS

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

The following are prohibited:

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

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

Pharmacological, chemical and physical manipulation is the *Use* of substances and methods, including masking agents, which alter, attempt to alter or may reasonably be expected to alter the integrity and validity of specimens collected in doping controls.

These include but are not limited to catheterisation, urine substitution and/or tampering, inhibition of renal excretion and alterations of testosterone and epitestosterone concentrations.

### **M3. GENE DOPING**

Gene or cell doping is defined as the non-therapeutic use of genes, genetic elements and/or cells that have the capacity to enhance athletic performance.

# SUBSTANCES AND METHODS PROHIBITED IN- AND OUT-OF-COMPETITION

## PROHIBITED SUBSTANCES

(All categories listed hereunder refer to all those substances and methods listed in the relevant section)

- S4. ANABOLIC AGENTS**
- S5. PEPTIDE HORMONES**
- S6. BETA-2 AGONISTS\***
- S7. AGENTS WITH ANTI-OESTROGENIC ACTIVITY**
- S8. MASKING AGENTS**

(\*Only clenbuterol, and salbutamol when its concentration in urine is greater than 1000ng/mL)

## PROHIBITED METHODS

- M1. ENHANCEMENT OF OXYGEN TRANSFER**
- M2. PHARMACOLOGICAL, CHEMICAL AND PHYSICAL  
MANIPULATION**
- M3. GENE DOPING**

# SUBSTANCES PROHIBITED IN PARTICULAR SPORTS

## **P.1 ALCOHOL**

Alcohol (ethanol) is prohibited *in-Competition* only, in the following sports. Detection will be conducted by breath analysis and/or blood. The doping violation threshold for each Federation is reported in parenthesis. If no threshold is indicated, the presence of any quantity of alcohol shall constitute a doping violation.

Aeronautic (FAI)	(0.05 g/L)
Archery (FITA)	(0.10 g/L)
Automobile (FIA)	
Billiards (WCBS)	
Boules (CMSB)	(0.50 g/L)

Football (FIFA)	
Gymnastics (FIG)	(0.10 g/L)
Karate (WKF)	(0.40 g/L)
Modern Pentathlon (UIPM)	(0.10 g/L)
Motorcycling (FIM)	
Roller Sports (FIRS)	(0.02 g/L)
Skiing (FIS)	
Triathlon (ITU)	(0.40 g/L)
Wrestling (FILA)	

## **P.2 BETA-BLOCKERS**

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

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

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.**

### **P.3 DIURETICS**

Diuretics are prohibited in- and out- of competition in all sports as masking agents. However, in the following weight-classified sports and sports where weight loss can enhance performance, no Therapeutic Use Exemptions shall be granted for use of diuretics.

Body-Building (IFBB)  
Boxing (AIBA)  
Judo (IJF)  
Karate (WKF)  
Powerlifting (IPF)  
Rowing (Light-Weight) (FISA)  
Skiing (FIS) for Ski Jumping only  
Taekwondo (WTF)  
Weightlifting (IWF)  
Wrestling (FILA)  
Wushu (IWUF)

## **SPECIFIED SUBSTANCES**

The *WADA Code* (10.3) states *"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 as noted in the *Code* provided that the *"...Athlete can establish that the Use of such a specified substance was not intended to enhance sport performance..."*

"Specified Substances" are listed below:

Stimulants: ephedrine, L-methylamphetamine, methylephedrine.  
Cannabinoids.  
Inhaled Beta-2 Agonists (except clenbuterol).  
Diuretics (this does not apply to section P3).  
Masking Agents: probenecid.  
Beta Blockers  
Alcohol