



The World Anti-Doping Code

THE 2015 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 2015

THE 2015 PROHIBITED LIST WORLD ANTI-DOPING CODE

Valid 1 January 2015

In accordance with Article 4.2.2 of the World Anti-Doping Code, all *Prohibited Substances* shall be considered as "*Specified Substances*" except Substances in classes S1, S2, S4.4, S4.5, S6.a, and *Prohibited Methods* M1, M2 and M3.

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

PROHIBITED SUBSTANCES

S0. NON-APPROVED SUBSTANCES

Any pharmacological substance which is not addressed by any of the subsequent sections of the *List* and with no current approval by any governmental regulatory health authority for human therapeutic use (e.g. drugs under pre-clinical or clinical development or discontinued, designer drugs, substances approved only for veterinary use) is prohibited at all times.

S1. ANABOLIC AGENTS

Anabolic agents are prohibited.

1. Anabolic Androgenic Steroids (AAS)

a. **Exogenous* AAS**, including:

1-androstenediol (5 α -androst-1-ene-3 β ,17 β -diol); **1-androstenedione** (5 α -androst-1-ene-3,17-dione); **bolandiol** (estr-4-ene-3 β ,17 β -diol); **bolasterone**; **boldenone**; **boldione** (androsta-1,4-diene-3,17-dione); **calusterone**;

clostebol; **danazol** ([1,2]oxazolo[4',5':2,3]pregna-4-en-20-yn-17 α -ol); **dehydrochlormethyltestosterone** (4-chloro-17 β -hydroxy-17 α -methylandrosta-1,4-dien-3-one); **desoxymethyltestosterone** (17 α -methyl-5 α -androst-2-en-17 β -ol); **drostanolone**; **ethylestrenol** (19-norpregna-4-en-17 α -ol); **fluoxymesterone**; **formebolone**; **furazabol** (17 α -methyl [1,2,5]oxadiazolo[3',4':2,3]-5 α -androstan-17 β -ol); **gestrinone**; **4-hydroxytestosterone** (4,17 β -dihydroxyandrost-4-en-3-one); **mestanolone**; **mesterolone**; **metandienone** (17 β -hydroxy-17 α -methylandrosta-1,4-dien-3-one); **metenolone**; **methandriol**; **methasterone** (17 β -hydroxy-2 α ,17 α -dimethyl-5 α -androstan-3-one); **methyldienolone** (17 β -hydroxy-17 α -methylestra-4,9-dien-3-one); **methyl-1-testosterone** (17 β -hydroxy-17 α -methyl-5 α -androst-1-en-3-one); **methylnortestosterone** (17 β -hydroxy-17 α -methylestr-4-en-3-one); **methyltestosterone**; **metribolone** (methyltrienolone, 17 β -hydroxy-17 α -methylestra-4,9,11-trien-3-one); **mibolone**; **nandrolone**; **19-norandrostenedione** (estr-4-ene-3,17-dione); **norboletone**; **norclostebol**; **norethandrolone**; **oxabolone**; **oxandrolone**; **oxymesterone**; **oxymetholone**; **prostanazol** (17 β -[(tetrahydropyran-2-yl)oxy]-1'H-pyrazolo[3,4:2,3]-5 α -androstane); **quinbolone**; **stanozolol**; **stenbolone**; **1-testosterone** (17 β -hydroxy-5 α -androst-1-en-3-one); **tetrahydrogestrinone** (17-hydroxy-18 α -homo-19-nor-17 α -pregna-4,9,11-trien-3-one); **trenbolone** (17 β -hydroxyestr-4,9,11-trien-3-one); and other substances with a similar chemical structure or similar biological effect(s).

b. Endogenous AAS** when administered exogenously:

Androstenediol (androst-5-ene-3 β ,17 β -diol); **androstenedione** (androst-4-ene-3,17-dione); **dihydrotestosterone** (17 β -hydroxy-5 α -androstan-3-one); **prasterone** (dehydroepiandrosterone, DHEA, 3 β -hydroxyandrost-5-en-17-one); **testosterone**;

and their **metabolites** and **isomers**, including but not limited to:

5 α -androstane-3 α ,17 α -diol; **5 α -androstane-3 α ,17 β -diol**; **5 α -androstane-3 β ,17 α -diol**; **5 α -androstane-3 β ,17 β -diol**; **5 β -androstane-3 α ,17 β -diol**; **androst-4-ene-3 α ,17 α -diol**; **androst-4-ene-3 α ,17 β -diol**; **androst-4-ene-3 β ,17 α -diol**; **androst-5-ene-3 α ,17 α -diol**; **androst-5-ene-3 α ,17 β -diol**; **androst-5-ene-3 β ,17 α -diol**; **4-androstenediol** (androst-4-ene-3 β ,17 β -diol); **5-androstenedione** (androst-5-ene-3,17-dione); **androsterone** (3 β -hydroxy-5 α -androstan-17-one); **epi-dihydrotestosterone**; **epitestosterone**; **etiocholanolone**; **7 α -hydroxy-DHEA**; **7 β -hydroxy-DHEA**; **7-keto-DHEA**; **19-norandrosterone**; **19-noretiocholanolone**.

2. Other Anabolic Agents

Including, but not limited to:

Clenbuterol, **selective androgen receptor modulators** (SARMs, e.g. **andarine** and **ostarine**), **tibolone**, **zeranol** and **zilpaterol**.

For purposes of this section:

* "exogenous" refers to a substance which is not ordinarily produced by the body naturally.

** "endogenous" refers to a substance which is ordinarily produced by the body naturally.

S2. PEPTIDE HORMONES, GROWTH FACTORS, RELATED SUBSTANCES AND MIMETICS

The following substances, and other substances with similar chemical structure or similar biological effect(s), are prohibited:

1. Erythropoietin-Receptor agonists:

1.1 **Erythropoiesis-Stimulating Agents (ESAs)** including e.g. **darbepoietin (dEPO); erythropoietins (EPO); EPO-Fc; EPO-mimetic peptides (EMP)**, e.g. **CNTO 530** and **peginesatide**; and **methoxy polyethylene glycol-epoetin beta (CERA)**;

1.2 **Non-erythropoietic EPO-Receptor agonists**, e.g. **ARA-290, asialo EPO** and **carbamylated EPO**;

2. Hypoxia-inducible factor (HIF) stabilizers, e.g. **cobalt** and **FG-4592**; and **HIF activators**, e.g. **argon, xenon**;

3. Chorionic Gonadotrophin (CG) and **Luteinizing Hormone (LH)** and their releasing factors, e.g. **buserelin, gonadorelin** and **triptorelin**, in males;

4. Corticotrophins and their releasing factors, e.g. **corticoirelin**;

5. Growth Hormone (GH) and its releasing factors including **Growth Hormone Releasing Hormone (GHRH)** and its **analogues**, e.g. **CJC-1295, sermorelin** and **tesamorelin**; **Growth Hormone Secretagogues (GHS)**, e.g. **ghrelin** and **ghrelin mimetics**, e.g. **anamorelin** and **ipamorelin**; and **GH-Releasing Peptides (GHRPs)**, e.g. **alexamorelin, GHRP-6, hexarelin** and **pralmorelin (GHRP-2)**.

Additional prohibited growth factors:

Fibroblast Growth Factors (FGFs); Hepatocyte Growth Factor (HGF); Insulin-like Growth Factor-1 (IGF-1) and its **analogues**; **Mechano Growth Factors (MGFs); Platelet-Derived Growth Factor (PDGF); Vascular-Endothelial Growth Factor (VEGF)** and any other growth factor

affecting muscle, tendon or ligament protein synthesis/degradation, vascularisation, energy utilization, regenerative capacity or fibre type switching.

S3. BETA-2 AGONISTS

All **beta-2 agonists**, including all **optical isomers**, e.g. *d-* and *l-* where relevant, are prohibited.

Except:

- Inhaled **salbutamol** (maximum 1600 micrograms over 24 hours);
- Inhaled **formoterol** (maximum delivered dose 54 micrograms over 24 hours); and
- Inhaled **salmeterol** in accordance with the manufacturers' recommended therapeutic regimen.

The presence in urine of salbutamol in excess of 1000 ng/mL or formoterol in excess of 40 ng/mL is presumed not to be an intended therapeutic use of the substance and will be considered as an *Adverse Analytical Finding (AAF)* unless the *Athlete* proves, through a controlled pharmacokinetic study, that the abnormal result was the consequence of the use of the therapeutic inhaled dose up to the maximum indicated above.

S4. HORMONE AND METABOLIC MODULATORS

The following **hormones** and **metabolic modulators** are prohibited:

1. **Aromatase inhibitors** including, but not limited to: **aminoglutethimide**; **anastrozole**; **androsta-1,4,6-triene-3,17-dione** (androstatrienedione); **4-androstene-3,6,17 trione** (6-oxo); **exemestane**; **formestane**; **letrozole** and **testolactone**.
2. **Selective estrogen receptor modulators** (SERMs) including, but not limited to: **raloxifene**; **tamoxifen** and **toremifene**.
3. Other **anti-estrogenic substances** including, but not limited to: **clomiphene**; **cyclofenil** and **fulvestrant**.
4. **Agents modifying myostatin function(s)** including, but not limited, to: **myostatin inhibitors**.

5. Metabolic modulators:

5.1 **Activators of the AMP-activated protein kinase (AMPK)**, e.g. **AICAR**; and **Peroxisome Proliferator Activated Receptor δ (PPAR δ) agonists**, e.g. **GW 1516**;

5.2 **Insulins**;

5.3 **Trimetazidine**.

S5. DIURETICS AND MASKING AGENTS

The following **diuretics** and **masking agents** are prohibited, as are other substances with a similar chemical structure or similar biological effect(s).

Including, but not limited to:

- **Desmopressin; probenecid; plasma expanders**, e.g. **glycerol** and intravenous administration of **albumin, dextran, hydroxyethyl starch** and **mannitol**.
- **Acetazolamide; amiloride; bumetanide; canrenone; chlortalidone; etacrynic acid; furosemide; indapamide; metolazone; spironolactone; thiazides**, e.g. **bendroflumethiazide, chlorothiazide** and **hydrochlorothiazide; triamterene** and **vaptans**, e.g. **tolvaptan**.

Except:

- Drospirenone; pamabrom; and topical dorzolamide and brinzolamide.
- Local administration of felypressin in dental anaesthesia.

The detection in an *Athlete's Sample* at all times or *In-Competition*, as applicable, of any quantity of the following substances subject to threshold limits: formoterol, salbutamol, cathine, ephedrine, methylephedrine and pseudoephedrine, in conjunction with a diuretic or masking agent, will be considered as an *Adverse Analytical Finding* unless the *Athlete* has an approved *TUE* for that substance in addition to the one granted for the diuretic or masking agent.

PROHIBITED METHODS

M1. MANIPULATION OF BLOOD AND BLOOD COMPONENTS

The following are prohibited:

1. The *Administration* or reintroduction of any quantity of autologous, allogenic (homologous) or heterologous blood, or red blood cell products of any origin into the circulatory system.
2. 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 and microencapsulated haemoglobin products, excluding supplemental oxygen.
3. Any form of intravascular manipulation of the blood or blood components by physical or chemical means.

M2. CHEMICAL AND PHYSICAL MANIPULATION

The following are prohibited:

1. *Tampering, or Attempting to Tamper*, to alter the integrity and validity of *Samples* collected during *Doping Control*. Including, but not limited to:
Urine substitution and/or adulteration, e.g. proteases.
2. Intravenous infusions and/or injections of more than 50 mL per 6 hour period except for those legitimately received in the course of hospital admissions, surgical procedures or clinical investigations.

M3. GENE DOPING

The following, with the potential to enhance sport performance, are prohibited:

1. The transfer of polymers of nucleic acids or nucleic acid analogues;
2. The use of normal or genetically modified cells.

SUBSTANCES AND METHODS PROHIBITED IN-COMPETITION

**In addition to the categories S0 to S5 and M1 to M3 defined above,
the following categories are prohibited *In-Competition*:**

PROHIBITED SUBSTANCES

S6. STIMULANTS

All **stimulants**, including all **optical isomers**, e.g. *d*- and *l*- where relevant, are prohibited.

Stimulants include:

a: Non-Specified Stimulants:

Adrafinil; amfepramone; amfetamine; amfetaminil; amiphenazole; benfluorex; benzylpiperazine; bromantan; clobenzorex; cocaine; cropropamide; crotetamide; fencamine; fenetylline; fenfluramine; fenproporex; fonturacetam [4-phenylpiracetam (carphedon)]; furfenorex; mefenorex; mephentermine; mesocarb; metamfetamine(*d*-); p-methylamphetamine; modafinil; norfenfluramine; phendimetrazine; phentermine; prenylamine and prolintane.

A stimulant not expressly listed in this section is a Specified Substance.

b: Specified Stimulants.

Including, but not limited to:

Benzfetamine; cathine^{}; cathinone and its analogues, e.g. mephedrone, methedrone, and α pyrrolidinovalerophenone; dimethylamphetamine; ephedrine^{***}; epinephrine^{****} (adrenaline); etamivan; etilamfetamine; etilefrine; famprofazone; fenbutrazate; fencamfamin; heptaminol; hydroxyamfetamine (parahydroxyamphetamine); isometheptene; levmetamfetamine; meclofenoxate; methylenedioxyamphetamine; methylephedrine^{***}; methylhexanamine (dimethylpentylamine); methylphenidate; nikethamide; norfenefrine; octopamine; oxilofrine (methylsynephrine); pemoline; pentetrazol; phenethylamine and its derivatives; phenmetrazine; phenpromethamine; propylhexedrine; pseudoephedrine^{****}; selegiline; sibutramine; strychnine; tenamfetamine (methylenedioxyamphetamine), tuaminoheptane;**

and other substances with a similar chemical structure or similar biological effect(s).

Except:

Imidazole derivatives for topical/ophthalmic use and those stimulants included in the 2015 Monitoring Program*.

* Bupropion, caffeine, nicotine, phenylephrine, phenylpropanolamine, pipradrol, and synephrine: These substances are included in the 2015 Monitoring Program, and are not considered *Prohibited Substances*.

** Cathine: Prohibited when its concentration in urine is greater than 5 micrograms per milliliter.

*** Ephedrine and methylephedrine: Prohibited when the concentration of either in urine is greater than 10 micrograms per milliliter.

**** Epinephrine (adrenaline): Not prohibited in local administration, e.g. nasal, ophthalmologic, or co-administration with local anaesthetic agents.

***** Pseudoephedrine: Prohibited when its concentration in urine is greater than 150 micrograms per milliliter.

S7. NARCOTICS

Prohibited:

Buprenorphine; dextromoramide; diamorphine (heroin); fentanyl and its derivatives; hydromorphone; methadone; morphine; oxycodone; oxymorphone; pentazocine and pethidine.

S8. CANNABINOIDS

Prohibited:

- **Natural**, e.g. **cannabis**, **hashish** and **marijuana**, or **synthetic Δ^9 -tetrahydrocannabinol (THC)**.
- **Cannabimimetics**, e.g. "**Spice**", **JWH-018**, **JWH-073**, **HU-210**.

S9. GLUCOCORTICOIDS

All **glucocorticoids** are prohibited when administered by oral, intravenous, intramuscular or rectal routes.

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 is equivalent to a blood alcohol concentration of 0.10 g/L.

- Air Sports (FAI)
- Archery (WA)
- Automobile (FIA)
- Motorcycling (FIM)
- Powerboating (UIM)

P2. BETA-BLOCKERS

Beta-blockers are prohibited *In-Competition* only, in the following sports, and also prohibited *Out-of-Competition* where indicated.

- Archery (WA)*
- Automobile (FIA)
- Billiards (all disciplines) (WCBS)
- Darts (WDF)
- Golf (IGF)
- Shooting (ISSF, IPC)*
- Skiing/Snowboarding (FIS) in ski jumping, freestyle aerials/halfpipe and snowboard halfpipe/big air
- Underwater sports (CMAS) in constant-weight apnoea with or without fins, dynamic apnoea with and without fins, free immersion apnoea, Jump Blue apnoea, spearfishing, static apnoea, target shooting and variable weight apnoea.

*Also prohibited *Out-of-Competition*

Including, but not limited to:

Acebutolol; alprenolol; atenolol; betaxolol; bisoprolol; bunolol; carteolol; carvedilol; celiprolol; esmolol; labetalol; levobunolol; metipranolol; metoprolol; nadolol; oxprenolol; pindolol; propranolol; sotalol and timolol.

20 September 2014



2015 Prohibited List

Summary of Major Modifications and Explanatory Notes

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

PROHIBITED SUBSTANCES

S1: Anabolic Agents

- Changes were made to reflect current scientific nomenclature.
- 5β -androstane- $3\alpha,17\beta$ -diol was added to the examples of testosterone metabolites.

S2. Peptide Hormones, Growth Factors, Related Substances and Mimetics

- The title of this section has been changed: Mimetics have been added to the title to reflect the fact that synthetic analogs are also prohibited under this section.
- Please note that all the substances named as examples in this revised section of the 2015 Prohibited List were already considered prohibited under previous Prohibited Lists, as applicable.
- The ESA sub-section has been expanded by adding the non-erythropoietic EPO-Receptor agonists.
- In addition, the HIF stabilizer sub-section has been placed in a separate paragraph to highlight the growing importance of these drugs and to specifically identify HIF activators such as xenon and argon. Note that cyanocobalamin (vitamin B12) is not prohibited.
- Examples of Chorionic Gonadotrophin (CG) and Luteinizing Hormone (LH) releasing factors have now been identified.
- A Corticotrophin releasing factor has now been added as an example.

- GH releasing factors have been divided in a more precise categorization and several examples of each have been added to illustrate their different pharmacological properties.
- IGF-1 has been moved to the other growth factor section.
- Note that Platelet Derived Plasma preparations are not prohibited.

S4. Hormone and Metabolic Modulators

- Trimetazidine was originally included in S6.b based upon the similarity of its chemical structure to some of the listed Stimulants. It has been moved to the newly created sub-section S4.5.c as it is pharmacologically classified as a modulator of cardiac metabolism.
- AMPK activators were re-described to reflect current nomenclature.

S5. Diuretics and Masking Agents

- The title and subsequent paragraphs has been modified by the removal of the word "other" to reflect that diuretics are not only masking agents but can also be abused for other purposes such as notably the induction of rapid weight loss.
- The last paragraph has been reworded for the sake of clarity. The principle and processes identified in the previous version of the Prohibited List remain unchanged.

PROHIBITED METHODS

M2. Chemical and Physical Manipulation

- The term "surgical procedures" has been added to the sentence describing the situations in which the administration of intravenous infusions or injections of more than 50 mL per 6 hours are permitted when medically required.

SUBSTANCES AND METHODS PROHIBITED IN-COMPETITION

S6. Stimulants:

- For the sake of clarification, topical/ophthalmic imidazole derivatives have been mentioned as exceptions of non-prohibited stimulants.
- Phenmetrazine has been moved from section S6.a to S6.b to reflect the fact that it is metabolized into fenbutrazate, which is already listed under S6.b.

- The List now clearly identifies the whole family of phenethylamine derivatives as being prohibited to address the growing number of illegal, designer stimulants derived from phenethylamine.
- Trimetazidine has been transferred to the newly created section S4.5.c (see above).

S9: Glucocorticoids:

- Glucocorticosteroids are described as Glucocorticoids to reflect current nomenclature and use.

SUBSTANCES PROHIBITED IN PARTICULAR SPORTS

P1: Alcohol:

- Following the request of World Karate Federation (WKF), karate was removed from the list of sports in which alcohol is prohibited

P2. Beta-blockers

- The World Underwater Federation (CMAS) has, at its request, been added to the group of International Federations prohibiting the use of Beta-blockers in competition for certain disciplines.

MONITORING PROGRAM

- Following sufficient collection of data leading to clear conclusions, monitoring of pseudoephedrine below 150 microgram per milliliter will cease in 2015.
- Telmisartan, an atypical angiotensin II receptor antagonist with apparent partial PPAR δ receptor agonist properties (prohibited under S4.5.b), was added to the Monitoring Program to assess the abuse of this substance.
- Meldonium, a drug with potential cardiac effects, was added to the Monitoring Program to assess the abuse of this substance.