



WORLD ANTI-DOPING CODE
INTERNATIONAL STANDARD
**PROHIBITED
LIST**
2024

This List shall come into effect on 1 January 2024.

TABLE OF CONTENTS

Please note that the list of examples of medical conditions below is not inclusive.

SUBSTANCES & METHODS PROHIBITED AT ALL TIMES

S0 Non-approved substances	4
S1 Anabolic agents	5
Some of these substance(s) may be found, without limitation, in medications used for the treatment of e.g. male hypogonadism.	
S2 Peptide hormones, growth factors, related substances, and mimetics	7
Some of these substance(s) may be found, without limitation, in medications used for the treatment of e.g. anaemia, male hypogonadism, growth hormone deficiency.	
S3 Beta-2 agonists	9
Some of these substance(s) may be found, without limitation, in medications used for the treatment of e.g. asthma and other respiratory disorders.	
S4 Hormone and metabolic modulators	10
Some of these substance(s) may be found, without limitation, in medications used for the treatment of e.g. breast cancer, diabetes, infertility (female), polycystic ovarian syndrome.	
S5 Diuretics and masking agents	12
Some of these substance(s) may be found, without limitation, in medications used for the treatment of e.g. heart failure, hypertension.	
M1 – M2 – M3 Prohibited Methods	13

SUBSTANCES & METHODS PROHIBITED IN-COMPETITION

S6 Stimulants	14
Some of these substance(s) may be found, without limitation, in medications used for the treatment of e.g. anaphylaxis, attention deficit hyperactivity disorders (ADHD), cold and influenza symptoms.	
S7 Narcotics	16
Some of these substance(s) may be found, without limitation, in medications used for the treatment of e.g. pain, including from musculoskeletal injuries.	
S8 Cannabinoids	17
S9 Glucocorticoids	18
Some of these substance(s) may be found, without limitation, in medications used for the treatment of e.g. allergy, anaphylaxis, asthma, inflammatory bowel disease.	

SUBSTANCES PROHIBITED IN PARTICULAR SPORTS

P1 Beta-blockers	19
Some of these substance(s) may be found, without limitation, in medications used for the treatment of e.g. heart failure, hypertension.	

INDEX	20
--------------------	----

THE 2024 PROHIBITED LIST WORLD ANTI-DOPING CODE

VALID 1 JANUARY 2024

Introduction

The *Prohibited List* is a mandatory *International Standard* as part of the World Anti-Doping Program.

The *List* is updated annually following an extensive consultation process facilitated by WADA. The effective date of the *List* is 01 January 2024.

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.

Below are some terms used in this *List of Prohibited Substances and Prohibited Methods*.

Prohibited In-Competition

Subject to a different period having been approved by WADA for a given sport, the *In-Competition* period shall in principle be the period commencing just before midnight (at 11:59 p.m.) on the day before a *Competition* in which the *Athlete* is scheduled to participate until the end of the *Competition* and the *Sample* collection process.

Prohibited at all times

This means that the substance or method is prohibited *In-* and *Out-of-Competition* as defined in the *Code*.

Specified and non-**Specified**

As per Article 4.2.2 of the *World Anti-Doping Code*, “for purposes of the application of Article 10, all *Prohibited Substances* shall be *Specified Substances* except as identified on the *Prohibited List*. No *Prohibited Method* shall be a *Specified Method* unless it is specifically identified as a *Specified Method* on the *Prohibited List*”. As per the comment to the article, “the *Specified Substances* and *Methods* identified in Article 4.2.2 should not in any way be considered less important or less dangerous than other doping substances or methods. Rather, they are simply substances and methods which are more likely to have been consumed or used by an *Athlete* for a purpose other than the enhancement of sport performance.”

Substances of Abuse

Pursuant to Article 4.2.3 of the *Code*, *Substances of Abuse* are substances that are identified as such because they are frequently abused in society outside of the context of sport. The following are designated *Substances of Abuse*: cocaine, diamorphine (heroin), methylenedioxymethamphetamine (MDMA/“ecstasy”), tetrahydrocannabinol (THC).

Published by:

World Anti-Doping Agency
Stock Exchange Tower
800 Place Victoria (Suite 1700)
PO Box 120
Montreal, Quebec
Canada H4Z 1B7

URL: www.wada-ama.org
Tel: +1 514 904 9232
Fax: +1 514 904 8650
E-mail: code@wada-ama.org

S0 NON-APPROVED SUBSTANCES

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

All prohibited substances in this class are *Specified 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.

This class covers many different substances including but not limited to BPC-157, 2,4-Dinitrophenol (DNP) and Troponin Activators (e.g. Reldesemtiv and Tirasemtiv).

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

All prohibited substances in this class are non-*Specified Substances*.

Anabolic agents are prohibited.

S1.1. ANABOLIC ANDROGENIC STEROIDS (AAS)

When administered exogenously, including but not limited to:

- 1-Androstenediol (5 α -androst-1-ene-3 β , 17 β -diol)
- 1-Androstenedione (5 α -androst-1-ene-3, 17-dione)
- 1-Androsterone (3 α -hydroxy-5 α -androst-1-ene-17-one)
- 1-Epiandrosterone (3 β -hydroxy-5 α -androst-1-ene-17-one)
- 1-Testosterone (17 β -hydroxy-5 α -androst-1-en-3-one)
- 4-Androstenediol (androst-4-ene-3 β , 17 β -diol)
- 4-Hydroxytestosterone (4,17 β -dihydroxyandrost-4-en-3-one)
- 5-Androstenedione (androst-5-ene-3,17-dione)
- 7 α -Hydroxy-DHEA
- 7 β -Hydroxy-DHEA
- 7-Keto-DHEA
- 11 β -Methyl-19-nortestosterone
- 17 α -Methylepithiostanol (epistane)
- 19-Norandrostenediol (estr-4-ene-3,17-diol)
- 19-Norandrostenedione (estr-4-ene-3,17-dione)
- Androst-4-ene-3,11,17- trione (11-ketoandrostenedione, adrenosterone)
- Androstanolone (5 α -dihydrotestosterone, 17 β -hydroxy-5 α -androstan-3-one)
- Androstenediol (androst-5-ene-3 β ,17 β -diol)
- Androstenedione (androst-4-ene-3,17-dione)
- 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 and 17 α -methyl-5 α -androst-3-en-17 β -ol)
- Dimethandrolone (7 α ,11 β -Dimethyl-19-nortestosterone)
- Drostanolone
- Epiandrosterone (3 β -hydroxy-5 α -androstan-17-one)
- Epi-dihydrotestosterone (17 β -hydroxy-5 β -androstan-3-one)
- Epi-testosterone
- 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)

S1.1. ANABOLIC ANDROGENIC STEROIDS (AAS) (continued)

- Gestrinone
- 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)
- Methyl-1-testosterone (17 β -hydroxy-17 α -methyl-5 α -androst-1-en-3-one)
- Methylclostebol
- Methyldienolone (17 β -hydroxy-17 α -methylestra-4,9-dien-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)
- Mibolerone
- Nandrolone (19-nortestosterone)
- Norboletone
- Norclostebol (4-chloro-17 β -ol-estr-4-en-3-one)
- Norethandrolone
- Oxabolone
- Oxandrolone
- Oxymesterone
- Oxymetholone
- Prasterone (dehydroepiandrosterone, DHEA, 3 β -hydroxyandrost-5-en-17-one)
- Prostanazol (17 β -[(tetrahydropyran-2-yl)oxy]-1'H-pyrazolo[3,4:2,3]-5 α -androstane)
- Quinbolone
- Stanozolol
- Stenbolone
- Testosterone
- Tetrahydrogestrinone (17-hydroxy-18 α -homo-19-nor-17 α -pregna-4,9,11-trien-3-one)
- Tibolone
- Trenbolone (17 β -hydroxyestr-4,9,11-trien-3-one)
- Trestolone (7 α -Methyl-19-nortestosterone, MENT)

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

S1.2. OTHER ANABOLIC AGENTS

Including, but not limited to:

Clenbuterol, osilodrostat, ractopamine, selective androgen receptor modulators [SARMs, e.g. andarine, enobosarm (ostarine), LGD-4033 (ligandrol), RAD140, S-23 and YK-11], zeranol and zilpaterol.

S2

PEPTIDE HORMONES, GROWTH FACTORS, RELATED SUBSTANCES, AND MIMETICS

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

All prohibited substances in this class are non-*Specified Substances*.

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

S2.1. ERYTHROPOIETINS (EPO) AND AGENTS AFFECTING ERYTHROPOIESIS

Including, but not limited to:

- S2.1.1 Erythropoietin receptor agonists, e.g. darbepoetins (dEPO); erythropoietins (EPO); EPO-based constructs [e.g. EPO-Fc, methoxy polyethylene glycol-epoetin beta (CERA)]; EPO-mimetic agents and their constructs (e.g. CNTO-530, peginesatide).
- S2.1.2 Hypoxia-inducible factor (HIF) activating agents, e.g. cobalt; daprodustat (GSK1278863); IOX2; molidustat (BAY 85-3934); roxadustat (FG-4592); vadadustat (AKB-6548); xenon.
- S2.1.3 GATA inhibitors, e.g. K-11706.
- S2.1.4 Transforming growth factor beta (TGF- β) signalling inhibitors, e.g. luspatercept; sotatercept.
- S2.1.5 Innate repair receptor agonists, e.g. asialo EPO; carbamylated EPO (CEPO).

S2

PEPTIDE HORMONES, GROWTH FACTORS, RELATED SUBSTANCES, AND MIMETICS (continued)

S2.2. PEPTIDE HORMONES AND THEIR RELEASING FACTORS

S2.2.1 Testosterone-stimulating peptides in males including, but not limited to:

- chorionic gonadotrophin (CG),
- luteinizing hormone (LH),
- gonadotrophin-releasing hormone (GnRH, gonadorelin) and its agonist analogues (e.g. buserelin, deslorelin, goserelin, histrelin, leuprorelin, nafarelin and triptorelin),
- kisspeptin and its agonist analogues

S2.2.2 Corticotrophins and their releasing factors, e.g. corticorelin and tetracosactide

S2.2.3 Growth hormone (GH), its analogues and fragments including, but not limited to:

- growth hormone analogues, e.g. lonapegsomatropin, somapacitan and somatrogen
- growth hormone fragments, e.g. AOD-9604 and hGH 176-191

S2.2.4 Growth hormone releasing factors, including, but not limited to:

- growth hormone-releasing hormone (GHRH) and its analogues (e.g. CJC-1293, CJC-1295, sermorelin and tesamorelin)
- growth hormone secretagogues (GHS) and their mimetics [e.g. anamorelin, capromorelin, ibutamoren (MK-677), ipamorelin, lenomorelin (ghrelin), macimorelin and tabimorelin]
- GH-releasing peptides (GHRPs) [e.g. alexamorelin, examorelin (hexarelin), GHRP-1, GHRP-2 (pramorelin), GHRP-3, GHRP-4, GHRP-5 and GHRP-6]

S2.3. GROWTH FACTORS AND GROWTH FACTOR MODULATORS

Including, but not limited to:

- Fibroblast growth factors (FGFs)
- Hepatocyte growth factor (HGF)
- Insulin-like growth factor 1 (IGF-1, mecasermin) and its analogues
- Mechano growth factors (MGFs)
- Platelet-derived growth factor (PDGF)
- Thymosin- β 4 and its derivatives e.g. TB-500
- Vascular endothelial growth factor (VEGF)

and other growth factors or growth factor modulators affecting muscle, tendon or ligament protein synthesis/degradation, vascularisation, energy utilization, regenerative capacity or fibre type switching.

S3 BETA-2 AGONISTS

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

All prohibited substances in this class are *Specified Substances*.

All selective and non-selective beta-2 agonists, including all optical isomers, are prohibited.

Including, but not limited to:

- Arformoterol
- Fenoterol
- Formoterol
- Higenamine
- Indacaterol
- Levosalbutamol
- Olodaterol
- Procaterol
- Reproterol
- Salbutamol
- Salmeterol
- Terbutaline
- Tretoquinol (trimetoquinol)
- Tulobuterol
- Vilanterol

EXCEPTIONS

- Inhaled salbutamol: maximum 1600 micrograms over 24 hours in divided doses not to exceed 600 micrograms over 8 hours starting from any dose;
- Inhaled formoterol: maximum delivered dose of 54 micrograms over 24 hours;
- Inhaled salmeterol: maximum 200 micrograms over 24 hours;
- Inhaled vilanterol: maximum 25 micrograms over 24 hours.

NOTE

The presence in urine of salbutamol in excess of 1000 ng/mL or formoterol in excess of 40 ng/mL is not consistent with 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 a therapeutic dose (by inhalation) up to the maximum dose indicated above.

S4 HORMONE AND METABOLIC MODULATORS

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

Prohibited substances in classes S4.1 and S4.2 are *Specified Substances*. Those in classes S4.3 and S4.4 are non-*Specified Substances*.

The following hormone and metabolic modulators are prohibited.

S4.1. AROMATASE INHIBITORS

Including, but not limited to:

- 2-Androstenol (5 α -androst-2-en-17-ol)
- 2-Androstenone (5 α -androst-2-en-17-one)
- 3-Androstenol (5 α -androst-3-en-17-ol)
- 3-Androstenone (5 α -androst-3-en-17-one)
- 4-Androstene-3,6,17 trione (6-oxo)
- Aminoglutethimide
- Anastrozole
- Androsta-1,4,6-triene-3,17-dione (androstatrienedione)
- Androsta-3,5-diene-7,17-dione (arimistane)
- Exemestane
- Formestane
- Letrozole
- Testolactone

S4.2. ANTI-ESTROGENIC SUBSTANCES [ANTI-ESTROGENS AND SELECTIVE ESTROGEN RECEPTOR MODULATORS (SERMS)]

Including, but not limited to:

- Bazedoxifene
- Clomifene
- Cyclofenil
- Fulvestrant
- Ospemifene
- Raloxifene
- Tamoxifen
- Toremifene

S4 HORMONE AND METABOLIC MODULATORS

(continued)

S4.3. AGENTS PREVENTING ACTIVIN RECEPTOR IIB ACTIVATION

Including, but not limited to:

- Activin A-neutralizing antibodies
- Activin receptor IIB competitors such as:
 - Decoy activin receptors (e.g. ACE-031)
- Anti-activin receptor IIB antibodies (e.g. bimagrumab)
- Myostatin inhibitors such as:
 - Agents reducing or ablating myostatin expression
 - Myostatin-binding proteins (e.g. follistatin, myostatin propeptide)
 - Myostatin- or precursor-neutralizing antibodies (e.g. apitegromab, domagrozumab, landogrozumab, stamulumab)

S4.4. METABOLIC MODULATORS

S4.4.1 Activators of the AMP-activated protein kinase (AMPK), e.g. AICAR, peroxisome proliferator-activated receptor delta (PPAR δ) agonists, e.g. 2-(2-methyl-4-((4-methyl-2-(4-(trifluoromethyl)phenyl)thiazol-5-yl)methylthio)phenoxy) acetic acid (GW1516, GW501516) and Rev-erba agonists, e.g. SR9009, SR9011

S4.4.2 Insulins and insulin-mimetics

S4.4.3 Meldonium

S4.4.4 Trimetazidine

S5

DIURETICS AND MASKING AGENTS

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

All prohibited substances in this class are *Specified Substances*.

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

Including, but not limited to:

- Diuretics such as:
Acetazolamide; amiloride; bumetanide; canrenone; chlortalidone; etacrynic acid; furosemide; indapamide; metolazone; spironolactone; thiazides, e.g. bendroflumethiazide, chlorothiazide and hydrochlorothiazide; torasemide; triamterene;
 - Vaptans, e.g. conivaptan, mozavaptan, tolvaptan;
 - Plasma expanders by intravenous administration such as:
Albumin, dextran, hydroxyethyl starch, mannitol;
 - Desmopressin;
 - Probenecid;
- and other substances with a similar chemical structure or similar biological effect(s).



EXCEPTIONS

- Drospirenone; pamabrom; and topical ophthalmic administration of carbonic anhydrase inhibitors (e.g. dorzolamide, brinzolamide);
- Local administration of felypressin in dental anaesthesia.



NOTE

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 (except topical ophthalmic administration of a carbonic anhydrase inhibitor or local administration of felypressin in dental anaesthesia), will be considered as an *Adverse Analytical Finding (AAF)* unless the *Athlete* has an approved *Therapeutic Use Exemption (TUE)* for that substance in addition to the one granted for the diuretic or masking agent.

PROHIBITED METHODS

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

All prohibited methods in this class are non-*Specified* except methods in M2.2. which are *Specified Methods*.

M1. MANIPULATION OF BLOOD AND BLOOD COMPONENTS

The following are prohibited:

- M1.1.** 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 except donation by *Athletes* of plasma or plasma components by plasmapheresis performed in a registered collection center.
- M1.2.** Artificially enhancing the uptake, transport or delivery of oxygen.
Including, but not limited to:
Perfluorochemicals; efaproxiral (RSR13); voxelotor and modified haemoglobin products, e.g. haemoglobin-based blood substitutes and microencapsulated haemoglobin products, excluding supplemental oxygen by inhalation.
- M1.3.** 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:

- M2.1.** *Tampering, or Attempting to Tamper*, to alter the integrity and validity of *Samples* collected during *Doping Control*.
Including, but not limited to:
Sample substitution and/or adulteration, e.g. addition of proteases to *Sample*.
- M2.2.** Intravenous infusions and/or injections of more than a total of 100 mL per 12-hour period except for those legitimately received in the course of hospital treatments, surgical procedures or clinical diagnostic investigations.

M3. GENE AND CELL DOPING

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

- M3.1.** The use of nucleic acids or nucleic acid analogues that may alter genome sequences and/or alter gene expression by any mechanism. This includes but is not limited to gene editing, gene silencing and gene transfer technologies.
- M3.2.** The use of normal or genetically modified cells.

S6 STIMULANTS

PROHIBITED IN-COMPETITION

All prohibited substances in this class are *Specified Substances* except those in S6.A, which are non-*Specified Substances*.

Substances of Abuse in this section: cocaine and methylenedioxymethamphetamine (MDMA / “ecstasy”)

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

Stimulants include:

S6.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
- Lisdexamfetamine
- Mefenorex
- Mephentermine
- Mesocarb
- Metamfetamine(*d*-)
- *p*-methylnfetamine
- Modafinil
- Norfenfluramine
- Phendimetrazine
- Phentermine
- Prenylamine
- Prolintane

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

S6 STIMULANTS (continued)

S6.B: SPECIFIED STIMULANTS

Including, but not limited to:

- 2-phenylpropan-1-amine (β -methylphenylethylamine, BMPEA)
- 3-Methylhexan-2-amine (1,2-dimethylpentylamine)
- 4-Fluoromethylphenidate
- 4-Methylhexan-2-amine (1,3-dimethylamylamine, 1,3 DMAA, methylhexaneamine)
- 4-Methylpentan-2-amine (1,3-dimethylbutylamine)
- 5-Methylhexan-2-amine (1,4-dimethylamylamine, 1,4-dimethylpentylamine, 1,4-DMAA)
- Benzfetamine
- Cathine**
- Cathinone and its analogues, e.g. mephedrone, methedrone, and α -pyrrolidinovalerophenone
- Dimetamfetamine (dimethylamphetamine)
- Ephedrine***
- Epinephrine**** (adrenaline)
- Etamivan
- Ethylphenidate
- Etilamfetamine
- Etilefrine
- Famprofazone
- Fenbutrazate
- Fencamfamin
- Heptaminol
- Hydrafenil (fluorenol)
- Hydroxyamfetamine (parahydroxyamphetamine)
- Isometheptene
- Levmetamfetamine
- Meclofenoxate
- Methylenedioxyamphetamine
- Methylephedrine***
- Methylnaphthidate [(\pm)-methyl-2-(naphthalen-2-yl)-2-(piperidin-2-yl)acetate]
- Methylphenidate
- Nikethamide
- Norfenefrine
- Octodrine (1,5-dimethylhexylamine)
- Octopamine
- Oxilofrine (methylsynephrine)
- Pemoline
- Pentetrazol
- Phenethylamine and its derivatives
- Phenmetrazine
- Phenpromethamine
- Propylhexedrine
- Pseudoephedrine*****
- Selegiline
- Sibutramine
- Solriamfetol
- Strychnine
- Tenamfetamine (methylenedioxyamphetamine)
- Tuaminoheptane

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

EXCEPTIONS

- Clonidine;
- Imidazoline derivatives for dermatological, nasal, ophthalmic or otic use (e.g. brimonidine, clonazoline, fenoxazoline, indanazoline, naphazoline, oxymetazoline, tetrazyline, tramazoline, xylometazoline) and those stimulants included in the 2024 Monitoring Program*.

* Bupropion, caffeine, nicotine, phenylephrine, phenylpropanolamine, pipradrol, and synephrine: These substances are included in the 2024 Monitoring Program and are not considered *Prohibited Substances*.

** Cathine (d-norpseudoephedrine) and its l-isomer: Prohibited when its concentration in urine is greater than 5 micrograms per millilitre.

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

**** 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 millilitre.

PROHIBITED IN-COMPETITION

All prohibited substances in this class are *Specified Substances*.

Substance of Abuse in this section: diamorphine (heroin)

The following narcotics, including all optical isomers, e.g. *d-* and *l-* where relevant, are prohibited.

- Buprenorphine
- Dextromoramide
- Diamorphine (heroin)
- Fentanyl and its derivatives
- Hydromorphone
- Methadone
- Morphine
- Nicomorphine
- Oxycodone
- Oxymorphone
- Pentazocine
- Pethidine
- Tramadol

S8 CANNABINOIDS

PROHIBITED IN-COMPETITION

All prohibited substances in this class are *Specified Substances*.
Substance of Abuse in this section: tetrahydrocannabinol (THC)

All natural and synthetic cannabinoids are prohibited, e.g.

- In cannabis (hashish, marijuana) and cannabis products
- Natural and synthetic tetrahydrocannabinols (THCs)
- Synthetic cannabinoids that mimic the effects of THC

EXCEPTIONS

- Cannabidiol

S9 GLUCOCORTICOIDS

PROHIBITED IN-COMPETITION

All prohibited substances in this class are *Specified Substances*.

All glucocorticoids are prohibited when administered by any injectable, oral [including oromucosal (e.g. buccal, gingival, sublingual)] or rectal route.

Including, but not limited to:

- Beclometasone
- Betamethasone
- Budesonide
- Ciclesonide
- Cortisone
- Deflazacort
- Dexamethasone
- Flunisolide
- Fluocortolone
- Fluticasone
- Hydrocortisone
- Methylprednisolone
- Mometasone
- Prednisolone
- Prednisone
- Triamcinolone acetonide

NOTE

- Other routes of administration (including inhaled, and topical: dental-intracanal, dermal, intranasal, ophthalmological, otic and perianal) are not prohibited when used within the manufacturer's licensed doses and therapeutic indications.

P1 BETA-BLOCKERS

PROHIBITED IN PARTICULAR SPORTS

All prohibited substances in this class are *Specified Substances*.

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)
- Mini-Golf (WMF)
- Shooting (ISSF, IPC)*
- Skiing/Snowboarding (FIS) in ski jumping, freestyle aerials/halfpipe and snowboard halfpipe/big air
- Underwater sports (CMAS)* in all subdisciplines of freediving, spearfishing and target shooting

*Also prohibited *Out-of-Competition*

Including, but not limited to:

- | | | | |
|--------------|--------------|----------------|---------------|
| • Acebutolol | • Bunolol | • Labetalol | • Oxprenolol |
| • Alprenolol | • Carteolol | • Metipranolol | • Pindolol |
| • Atenolol | • Carvedilol | • Metoprolol | • Propranolol |
| • Betaxolol | • Celiprolol | • Nadolol | • Sotalol |
| • Bisoprolol | • Esmolol | • Nebivolol | • Timolol |

INDEX

- (±)-Methyl-2-(naphthalen-2-yl)-2-(piperidin-2-yl)acetate, 15
- 1-Androstenediol, 5
- 1-Androstenedione, 5
- 1-Androsterone, 5
- 1-Epiandrosterone, 5
- 1-Testosterone, 5
- 1,2-Dimethylpentylamine, 15
- [1,2]Oxazolo[4',5':2,3]pregna-4-en-20-yn-17 α -ol, 5
- 1,3-Dimethylamylamine (1,3 DMAA), 15
- 1,3-Dimethylbutylamine, 15
- 1,4-Dimethylamylamine (1,4-DMAA), 15
- 1,4-Dimethylpentylamine, 15
- 1,5-Dimethyl-hexylamine, 15
- 2-Androstenol, 10
- 2-Androstenone, 10
- 2-Phenylpropan-1-amine, 15
- 2,4-Dinitrophenol (DNP), 4
- 3 α -Hydroxy-5 α -androst-1-ene-17-one, 5
- 3 β -Hydroxy-5 α -androst-1-ene-17-one, 5
- 3 β -Hydroxy-5 α -androstan-17-one, 5
- 3 β -Hydroxyandrost-5-en-17-one, 6
- 3-Androstenol, 10
- 3-Androstenone, 10
- 3-Methylhexan-2-amine, 15
- 4-Androstene-3,6,17-trione, 10
- 4-Androstenediol, 5
- 4-Chloro-17 β -hydroxy-17 α -methylandrosta-1,4-dien-3-one, 5
- 4-Chloro-17 β -ol-estr-4-en-3-one, 6
- 4-Fluoromethylphenidate, 15
- 4-Hydroxytestosterone, 5
- 4-Methylhexan-2-amine, 15
- 4-Methylpentan-2-amine, 15
- 4-Phenylpiracetam, 14
- 4,17 β -Dihydroxyandrost-4-en-3-one, 5
- 5 α -Androst-1-ene-3, 17-dione, 5
- 5 α -Androst-1-ene-3 β , 17 β -diol, 5
- 5 α -Androst-2-en-17-ol, 10
- 5 α -Androst-2-en-17-one, 10
- 5 α -Androst-3-en-17-ol, 10
- 5 α -Androst-3-en-17-one, 10
- 5 α -Dihydrotestosterone, 5
- 5-Androstenedione, 5
- 5-Methylhexan-2-amine, 15
- 6-Oxo, 10
- 7 α -Hydroxy-DHEA, 5
- 7 α ,11 β -Dimethyl-19-nortestosterone, 5
- 7 α -Methyl-19-nortestosterone, 6
- 7 β -Hydroxy-DHEA, 5
- 7-Keto-DHEA, 5
- 11 β -Methyl-19-nortestosterone, 5
- 11-Ketoandrostenedione, 5
- 17 α -Methyl [1,2,5]oxadiazolo[3',4':2,3]-5 α -androst-17 β -ol, 5
- 17 α -Methyl-5 α -androst-2-en-17 β -ol, 5
- 17 α -Methyl-5 α -androst-3-en-17 β -ol, 5
- 17 α -Methylepithiostanol, 5
- 17 β -Hydroxy-2 α ,17 α -dimethyl-5 α -androstan-3-one, 6
- 17 β -Hydroxy-5 α -androst-1-en-3-one, 5
- 17 β -Hydroxy-5 α -androstan-3-one, 5
- 17 β -Hydroxy-5 β -androstan-3-one, 5
- 17 β -hydroxy-17 α -methyl-5 α -androst-1-en-3-one, 6
- 17 β -Hydroxy-17 α -methylandrosta-1,4-dien-3-one, 6
- 17 β -Hydroxy-17 α -methylestr-4-en-3-one, 6
- 17 β -Hydroxy-17 α -methylestra-4,9-dien-3-one, 6
- 17 β -Hydroxy-17 α -methylestra-4,9,11-trien-3-one, 6
- 17 β -Hydroxyestr-4,9,11-trien-3-one, 6
- 17 β -[(Tetrahydropyran-2-yl)oxy]-1'H-pyrazolo[3,4:2,3]-5 α -androstan-6
- 17-Hydroxy-18 α -homo-19-nor-17 α -pregna-4,9,11-trien-3-one, 6
- 19-Norandrostenediol, 5
- 19-Norandrostenedione, 5
- 19-Norpregna-4-en-17 α -ol, 5
- 19-Nortestosterone, 6
- α -Pyrrolidinovalerophenone, 15
- β -Methylphenylethylamine, 15
- ## A
- ACE-031, 11
- Acebutolol, 19
- Acetazolamide, 12
- Activators of the AMP-activated protein kinase (AMPK), 11
- Activin A-neutralizing antibodies, 11
- Activin receptor IIB competitors, 11
- Adrafinil, 14
- Adrenaline, 15
- Adrenosterone, 5
- AICAR, 11
- Albumin, 12
- Alexamorelin, 8
- Alprenolol, 19
- Amfepramone, 14
- Amphetamine, 14
- Amfetaminil, 14
- Amiloride, 12
- Aminoglutethimide, 10
- Amiphenazole, 14
- AMP-activated protein kinase (AMPK), 11
- Anamorelin, 8
- Anastrozole, 10
- Andarine, 6
- Androst-4-ene-3 β ,17 β -diol, 5
- Androst-4-ene-3,11,17-trione, 5
- Androst-4-ene-3,17-dione, 5
- Androst-5-ene-3 β ,17 β -diol, 5
- Androst-5-ene-3,17-dione, 5
- Androsta-1,4,6-triene-3,17-dione, 10
- Androsta-1,4-diene-3,17-dione, 5
- Androsta-3,5-diene-7,17-dione, 10
- Androstanolone, 5
- Androstatrienedione, 10
- Androstenediol, 5
- Androstenedione, 5
- Anti-activin receptor IIB antibodies, 11
- AOD-9604, 8
- Apitegromab, 11
- Arformoterol, 9
- Arimistane, 10
- Asialo EPO, 7
- Atenolol, 19
- ## B
- Bazedoxifene, 10
- Beclometasone, 18
- Bendroflumethiazide, 12
- Benfluorex, 14
- Benzfetamine, 15
- Benzylpiperazine, 14
- Betamethasone, 18
- Betaxolol, 19
- Bimagrumab, 11
- Bisoprolol, 19
- Blood, 13
- Blood (autologous), 13
- Blood (components), 13
- Blood (heterologous), 13
- Blood (homologous), 13
- Blood manipulation, 13
- BMPEA, 15
- Bolasterone, 5

INDEX

Boldenone, 5
Boldione, 5
BPC-157, 4
Brimonidine, 15
Brinzolamide, 12
Bromantan, 14
Budesonide, 18
Bumetanide, 12
Bunolol, 19
Buprenorphine, 16
Bupropion, 15
Buserelin, 8

C

Caffeine, 15
Calusterone, 5
Cannabidiol, 17
Cannabis, 17
Canrenone, 12
Capromorelin, 8
Carbamylated EPO (CEPO), 7
Carpheon, 14
Carteolol, 19
Carvedilol, 19
Cathine, 12, 15
Cathinone, 15
Celiprolol, 19
Cell (doping), 13
Cell (genetically modified), 13
Cell (normal), 13
Cell (red blood), 13
Chlorothiazide, 12
Chlortalidone, 12
Chorionic Gonadotrophin (CG), 8
Ciclesonide, 18
CJC-1293, 8
CJC-1295, 8
Clenbuterol, 6
Clobenzorex, 14
Clomifene, 10
Clonazoline, 15
Clonidine, 15
Clostebol, 5
CNTO-530, 7
Cobalt, 7
Cocaine, 14
Conivaptan, 12
Corticotropin, 8
Corticotrophins, 8

Cortisone, 18
Cropropamide, 14
Crotetamide, 14
Cyclofenil, 10

D

Danazol, 5
Daprodustat, 7
Darbepoetins (dEPO), 7
Deflazacort, 18
Dehydrochloromethyltestosterone, 5
Dehydroepiandrosterone (DHEA), 6
Deslorelin, 8
Desmopressin, 12
Desoxymethyltestosterone, 5
Dexamethasone, 18
Dextran, 12
Dextromoramide, 16
Diamorphine, 16
Dimetamfetamine, 15
Dimethandrolone, 5
Dimethylamphetamine, 15
Domagrozumab, 11
Dorzolamide, 12
Drospirenone, 12
Drostanolone, 5

E

Ecstasy, 14
Efaproxiral (RSR13), 13
Enobosarm, 6
Ephedrine, 12, 15
Epiandrosterone, 5
Epi-dihydrotestosterone, 5
Epinephrine, 15
Epistane, 5
Epitestosterone, 5
EPO-based constructs, 7
EPO-Fc, 7
EPO-mimetic agents, 7
Erythropoietin receptor agonists, 7
Erythropoietins (EPO), 7
Esmolol, 19
Estr-4-ene-3,17-diol, 5
Estr-4-ene-3,17-dione, 5
Etacrynic acid, 12
Etamivan, 15
Ethylestrenol, 5
Ethylphenidate, 15

Etilamfetamine, 15
Etilefrine, 15
Examorelin, 8
Exemestane, 10

F

Famprofazone, 15
Felypressin, 12
Fenbutrazate, 15
Fencamfamin, 15
Fencamine, 14
Fenetylline, 14
Fenfluramine, 14
Fenoterol, 9
Fenoxazoline, 15
Fenproporex, 14
Fentanyl, 16
Fibroblast growth factors (FGFs), 8
Flunisolide, 18
Fluocortolone, 18
Fluorenol, 15
Fluoxymesterone, 5
Fluticasone, 18
Follistatin, 11
Fonturacetam, 14
Formebolone, 5
Formestane, 10
Formoterol, 9, 12
Fulvestrant, 10
Furazabol, 5
Furfenorex, 14
Furosemide, 12

G

GATA inhibitors, 7
Gene doping, 13
Gene editing, 13
Gene silencing, 13
Gene transfer, 13
Gestrinone, 6
Ghrelin, 8
GH-releasing peptides (GHRPs), 8
Gonadorelin, 8
Gonadotrophin-releasing hormone (GnRH), 8
Goserelin, 8
Growth hormone (GH), 8
Growth hormone secretagogues (GHS), 8
GW1516, 11

INDEX

GW501516, 11

H

Haemoglobin (products), 13
Haemoglobin
(based blood substitutes), 13
Haemoglobin (microencapsulated
products), 13
Hashish, 17
Hepatocyte growth factor (HGF), 8
Heptaminol, 15
Heroin, 16
Hexarelin, 8
hGH 176-191, 8
Higenamine, 9
Histrelin, 8
Hydrafnil, 15
Hydrochlorothiazide, 12
Hydrocortisone, 18
Hydromorphone, 16
Hydroxyamfetamine, 15
Hydroxyethyl starch, 12
Hypoxia-inducible factor (HIF)
activating agents, 7

I

Ibutamoren, 8
Imidazoline, 15
Indacaterol, 9
Indanazoline, 15
Indapamide, 12
Infusions, 13
Injections (>100 mL), 13
Innate repair receptor agonists, 7
Insulin-like growth factor-1 (IGF-1), 8
Insulin-mimetics, 11
Insulins, 11
Intravenous infusions/injections, 13
IOX2, 7
Ipamorelin, 8
Isometheptene, 15

K

K-11706, 7
Kisspeptin, 8

L

Labetalol, 19
Landogrozumab, 11
Lenomorelin, 8

Letrozole, 10
Leuprorelin, 8
Levmetamfetamine, 15
Levosaltbutamol, 9
LGD-4033, 6
Ligandrol, 6
Lisdexamfetamine, 14
Lonapegsomatropin, 8
Luspatercept, 7
Luteinizing hormone (LH), 8

M

Macimorelin, 8
Mannitol, 12
Marijuana, 17
Mecasermin, 8
Mechano growth factors (MGFs), 8
Meclofenoxate, 15
Mefenorex, 14
Meldonium, 11
MENT, 6
Mephedrone, 15
Mephentermine, 14
Mesocarb, 14
Mestanolone, 6
Mesterolone, 6
Metamfetamine(*d*-), 14
Metandienone, 6
Metenolone, 6
Methadone, 16
Methandriol, 6
Methasterone, 6
Methedrone, 15
Methoxy polyethylene glycol-epoetin
beta (CERA), 7
Methyl-1-testosterone, 6
Methylclostebol, 6
Methyldienolone, 6
Methylenedioxyamphetamine, 15
Methylenedioxymethamphetamine, 15
Methylephedrine, 12, 15
Methylhexanamine, 15
Methylnaphtidate, 15
Methylnortestosterone, 6
Methylphenidate, 15
Methylprednisolone, 18
Methylsynephrine, 15
Methyltestosterone, 6
Methyltrienolone, 6
Metipranolol, 19

Metolazone, 12
Metoprolol, 19
Metribolone, 6
Mibolerone, 6
MK-677, 8
Modafinil, 14
Molidustat, 7
Mometasone, 18
Morphine, 16
Mozavaptan, 12
Myostatin inhibitors, 11
Myostatin precursor-neutralizing
antibodies, 11
Myostatin propeptide, 11
Myostatin-binding proteins, 11
Myostatin-neutralizing antibodies, 11

N

Nadolol, 19
Nafarelin, 8
Nandrolone, 6
Naphazoline, 15
Nebivolol, 19
Nicomorphine, 16
Nicotine, 15
Nikethamide, 15
Norboletone, 6
Norclostebol, 6
Norethandrolone, 6
Norfenefrine, 15
Norfenfluramine, 14
Nucleic acids, 13
Nucleic acid analogues, 13

O

Octodrine, 15
Octopamine, 15
Olodaterol, 9
Osilodrostat, 6
Ospemifene, 10
Ostarine, 6
Oxabolone, 6
Oxandrolone, 6
Oxilofrine, 15
Oxprenolol, 19
Oxycodone, 16
Oxymesterone, 6
Oxymetazoline, 15
Oxymetholone, 6
Oxymorphone, 16

INDEX

P

Pamabrom, 12
Parahydroxyamphetamine, 15
Peginesatide, 7
Pemoline, 15
Pentazocine, 16
Pentetrazol, 15
Perfluorochemicals, 13
Peroxisome proliferator activated receptor delta agonists, 11
Pethidine, 16
Phendimetrazine, 14
Phenethylamine, 15
Phenmetrazine, 15
Phenpromethamine, 15
Phentermine, 14
Phenylephrine, 15
Phenylpropanolamine, 15
Pindolol, 19
Pipadrol, 15
Plasma expanders, 12
Plasmapheresis, 13
Platelet-derived growth factor (PDGF), 8
p-methylamphetamine, 14
Pralmorelin, 8
Prasterone, 6
Prednisolone, 18
Prednisone, 18
Prenylamine, 14
Probenecid, 12
Procaterol, 9
Prolintane, 14
Propranolol, 19
Propylhexedrine, 15
Prostanozol, 6
Proteases, 13
Pseudoephedrine, 12, 15

Q

Quinbolone, 6

R

RAD140, 6

Ractopamine, 6
Raloxifene, 10
Reldesemtiv, 4
Reproterol, 9
Rev-erba agonists, 11
Roxadustat, 7

S

S-23, 6
Salbutamol, 9, 12
Salmeterol, 9
Selective androgen receptor modulators (SARMs), 6
Selegiline, 15
Sermorelin, 8
Sibutramine, 15
Solriamfetol, 15
Somapacitan, 8
Somatogon, 8
Sotalol, 19
Sotatercept, 7
Spironolactone, 12
SR9009, 11
SR9011, 11
Stamulumab, 11
Stanozolol, 6
Stenbolone, 6
Strychnine, 15
Synephrine, 15

T

Tabimorelin, 8
Tamoxifen, 10
Tampering, 13
TB-500, 8
Tenamfetamine, 15
Terbutaline, 9
Tesamorelin, 8
Testolactone, 10
Testosterone, 6
Testosterone-stimulating peptides 8
Tetracosactide, 8
Tetrahydrocannabinols, 17
Tetrahydrogestrinone, 6

Tetryzoline, 15
Thiazides, 12
Thymosin- β 4, 8
Tibolone, 6
Timolol, 19
Tirasemtiv, 4
Tolvaptan, 12
Torasemide, 12
Toremifene, 10
Tramadol, 16
Tramazoline, 15
Transforming growth factor beta (TGF- β) signalling inhibitors, 7
Trenbolone, 6
Trestolone, 6
Tretoquinol, 9
Triamcinolone acetonide, 18
Triamterene, 12
Trimetazidine, 11
Trimetoquinol, 9
Triptorelin, 8
Troponin activators, 4
Tuaminoheptane, 15
Tulobuterol, 9

V

Vadadustat (AKB-6548), 7
Vaptans, 12
Vascular endothelial growth factor (VEGF), 8
Vilanterol, 9
Voxelotor, 13

X

Xenon, 7
Xylometazoline, 15

Y

YK-11, 6

Z

Zeranol, 6
Zilpaterol, 6



www.wada-ama.org