COMUNICATO N. 128/L – 27 DICEMBRE 2022

Comunicazioni della F.I.G.C.

Si riporta il testo del Com. Uff. n. 85/A della F.I.G.C., pubblicato in data 22 Dicembre 2022:

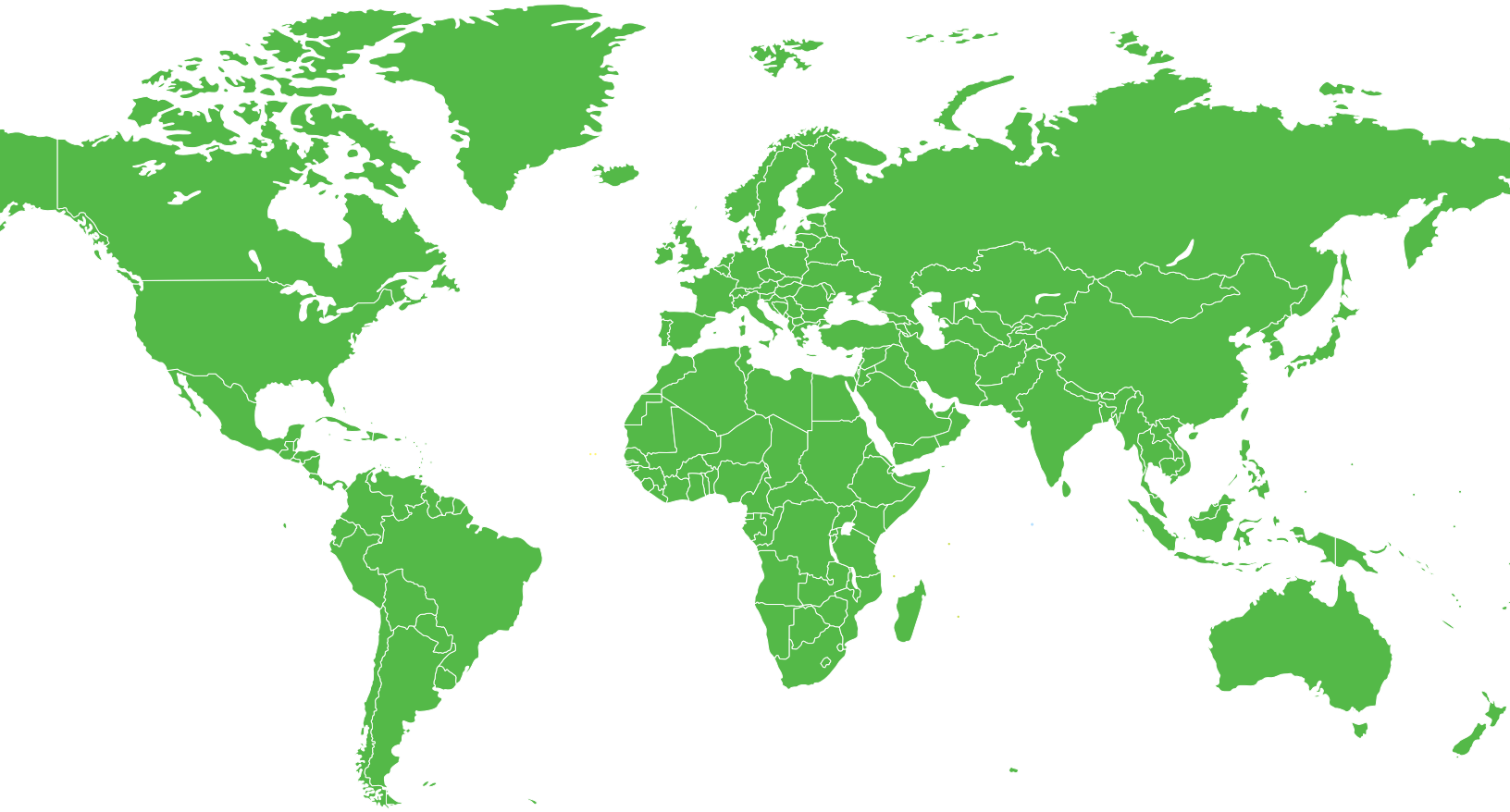
Comunicato Ufficiale n. 85/A

In allegato si pubblica la lista delle Sostanze e Metodi proibiti – WADA in vigore dal 1° gennaio 2023.

Pubblicato in Firenze il 27 Dicembre 2022

IL VICE PRESIDENTE VICARIO
PRESIDENTE AD INTERIM
(Marcel Vulpis)

wada



WORLD ANTI-DOPING CODE

INTERNATIONAL STANDARD

PROHIBITED LIST

2023

This List shall come into effect on 1 January 2023.

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

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THE 2023 PROHIBITED LIST WORLD ANTI-DOPING CODE

VALID 1 JANUARY 2023

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 2023.

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).

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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.

S1 ANABOLIC AGENTS

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

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

Anabolic agents are prohibited.

1. ANABOLIC ANDROGENIC STEROIDS (AAS)

When administered exogenously, including but not limited to:

- 1-Androstenediol (5α-androst-1-ene-3ß, 17ß-diol)
- 1-Androstenedione (5α-androst-1-ene-3, 17-dione)
- 1-Androsterone (3α-hydroxy-5α-androst-1-ene-17-one)
- 1-Epiandrosterone (3ß-hydroxy-5α-androst-1-ene-17-one)
- 1-Testosterone (17ß-hydroxy-5α-androst-1-en-3-one)
- 4-Androstenediol (androst-4-ene-3ß, 17ß-diol)
- 4-Hydroxytestosterone (4,17ß-dihydroxyandrost-4-en-3-one)
- 5-Androstenedione (androst-5-ene-3,17-dione)
- 7α-hydroxy-DHEA
- 7ß-hydroxy-DHEA
- 7-Keto-DHEA
- 17α-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 (5α-dihydrotestosterone, 17ß-hydroxy-5α-androstan-3-one)
- Androstenediol (androst-5-ene-3ß,17ß-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-17α-ol)
- Dehydrochlormethyltestosterone (4-chloro-17ß-hydroxy-17α-methylandrosta-1,4-dien-3-one)
- Desoxymethyltestosterone (17α-methyl-5α-androst-2-en-17ß-ol and 17α-methyl-5α-androst-3-en-17ß-ol)
- Drostanolone
- Epiandrosterone (3ß-hydroxy-5α-androstan-17-one)
- Epi-dihydrotestosterone (17ß-hydroxy-5ß-androstan-3-one)
- Epitestosterone
- Ethylestrenol (19-norpregna-4-en-17α-ol)
- Fluoxymesterone
- Formebolone
- Furazabol (17α-methyl [1,2,5] oxadiazolo[3',4':2,3]-5α-androstan-17ß-ol)
- Gestrinone

S1 ANABOLIC AGENTS (continued)

1. ANABOLIC ANDROGENIC STEROIDS (AAS) (continued)

- Mestanolone
- Mesterolone
- Metandienone (17ß-hydroxy-17α-methylandrosta-1,4-dien-3-one)
- Metenolone
- Methandriol
- Methasterone (17ß-hydroxy-2α,17α-dimethyl-5α-androstan-3-one)
- Methyl-1-testosterone (17ß-hydroxy-17α-methyl-5α-androst-1-en-3-one)
- Methylclostebol
- Methyldienolone (17ß-hydroxy-17α-methylestra-4,9-dien-3-one)
- Methylnortestosterone (17ß-hydroxy-17α-methylestr-4-en-3-one)
- Methyltestosterone
- Metribolone (methyltrienolone, 17ß-hydroxy-17α-methylestra-4,9,11-trien-3-one)
- Mibolerone
- Nandrolone (19-nortestosterone)
- Norboletone
- Norclostebol (4-chloro-17ß-ol-estr-4-en-3-one)
- Norethandrolone
- Oxabolone
- Oxandrolone
- Oxymesterone
- Oxymetholone
- Prasterone (dehydroepiandrosterone, DHEA, 3ß-hydroxyandrost-5-en-17-one)
- Prostanozol (17ß-[(tetrahydropyran-2-yl)oxy]-1'H-pyrazolo[3,4:2,3]-5α-androstane)
- Quinbolone
- Stanozolol
- Stenbolone
- Testosterone
- Tetrahydrogestrinone (17-hydroxy-18a-homo-19-nor-17α-pregna-4,9,11-trien-3-one)
- Tibolone
- Trenbolone (17ß-hydroxyestr-4,9,11-trien-3-one)

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

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.

1. ERYTHROPOIETINS (EPO) AND AGENTS AFFECTING ERYTHROPOIESIS

Including, but not limited to:

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).

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.

1.3 GATA inhibitors, e.g. K-11706.

1.4 Transforming growth factor beta (TGF-ß) signalling inhibitors, e.g. luspatercept; sotatercept.

1.5 Innate repair receptor agonists, e.g. asialo EPO; carbamylated EPO (CEPO).

S2 PEPTIDE HORMONES, GROWTH FACTORS, RELATED SUBSTANCES, AND MIMETICS
(continued)

2. PEPTIDE HORMONES AND THEIR RELEASING FACTORS

2.1 Chorionic gonadotrophin (CG) and luteinizing hormone (LH) and their releasing factors in males, e.g. buserelin, deslorelin, gonadorelin, goserelin, leuprorelin, nafarelin and triptorelin

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

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

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

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. lenomorelin (ghrelin), anamorelin, ipamorelin, macimorelin and tabimorelin]
- GH-releasing peptides (GHRPs) [e.g. alexamorelin, GHRP-1, GHRP-2 (pralmorelin), GHRP-3, GHRP-4, GHRP-5, GHRP-6, and examorelin (hexarelin)]

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) and its analogues
- Mechano growth factors (MGFs)
- Platelet-derived growth factor (PDGF)
- Thymosin-ß4 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.

4.1. AROMATASE INHIBITORS

Including, but not limited to:

- 2-Androstenol (5α-androst-2-en-17-ol)
- 2-Androstenone (5α-androst-2-en-17-one)
- 3-Androstenol (5α-androst-3-en-17-ol)
- 3-Androstenone (5α-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

4.2. 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)

4.3. 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)

4.4. METABOLIC MODULATORS

4.4.1 Activators of the AMP-activated protein kinase (AMPK), e.g. AICAR, SR9009; and peroxisome proliferator-activated receptor delta (PPARδ) agonists, e.g. 2-(2-methyl-4-((4-methyl-2-(4-(trifluoromethyl)phenyl)thiazol-5-yl)methylthio) phenoxy) acetic acid (GW1516, GW501516)

4.4.2 Insulins and insulin-mimetics

4.4.3 Meldonium

4.4.4 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:

- Desmopressin; probenecid; plasma expanders, e.g. 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; torasemide; triamterene and vaptans, e.g. tolvaptan.

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:

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); voxelotor and modified haemoglobin products, e.g. haemoglobin-based blood substitutes and microencapsulated haemoglobin products, excluding supplemental oxygen by inhalation.
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:
   Sample substitution and/or adulteration, e.g. addition of proteases to *Sample*.

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:

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.
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:

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-methylamfetamine
- Modafinil
- Norfenfluramine
- Phendimetrazine
- Phentermine
- Prenylamine
- Prolintane

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

S6 STIMULANTS (continued)

B: SPECIFIED STIMULANTS

Including, but not limited to:

- 3-Methylhexan-2-amine (1,2-dimethylpentylamine)
- 4-fluoromethylphenidate
- 4-Methylhexan-2-amine (methylhexaneamine, 1,3-dimethylamylamine, 1,3 DMAA)
- 4-Methylpentan-2-amine (1,3-dimethylbutylamine)
- 5-Methylhexan-2-amine (1,4-dimethylpentylamine, 1,4-dimethylamylamine, 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
- Hydrafinil (fluorenol)
- Hydroxyamfetamine (parahydroxyamphetamine)
- Isometheptene
- Levmetamfetamine
- Meclofenoxate
- Methylenedioxymethamphetamine
- Methylephedrine***
- Methylnaphthidate [((±)-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, tetryzoline, xylometazoline) and those stimulants included in the 2023 Monitoring Program*.

* Bupropion, caffeine, nicotine, phenylephrine, phenylpropanolamine, pipradrol, and synephrine: These substances are included in the 2023 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.

S7 NARCOTICS

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

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
- Fluocortolone
- Flunisolide
- 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
- Alprenolol
- Atenolol
- Betaxolol
- Bisoprolol
- Bunolol
- Carteolol
- Carvedilol
- Celiprolol
- Esmolol
- Labetalol
- Metipranolol
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Summary of Major Modifications and Explanatory Notes

world anti-doping agency

2023 Prohibited List

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

PROHIBITED SUBSTANCES

S1. Anabolic Agents

- Androst-4-ene-3,11,17-trione (11-ketoandrostenedione, adrenosterone) is now listed as an example. In the body, it is converted to 11-ketotestosterone and both are androgens already prohibited as metabolites of androstenedione and testosterone, respectively.
- The substance 17α-methylepithiostanol (commonly referred to as epistane) is the 17-methylated analog to thiodrol (Shionogi, Japan) and converts *in vivo* to the prohibited anabolic agent desoxymethyltestosterone. Hence, per definition, 17α-methylepithiostanol is also prohibited under S1. In order to unequivocally document the prohibited status of 17α-methylepithiostanol, the substance was added as an additional example.
- Ractopamine, a beta-adrenergic agonist approved in some countries as a growth promoter for animals, was added to the list of examples under S1.2.
- S-23 and YK-11 were listed as examples of SARMs in S1.2.

S4. Hormone and Metabolic Modulators

- S4.3 was updated to include antibodies of precursors of myostatin and as example, apitegromab was added.
- The numbering was reformatted for clarity but there was no change in classification.

S5. Diuretics and Masking Agents

- The introductory language of the section was revised to harmonize with other sections of the List.
- Torasemide is added as an example of a diuretic and is already named in a *WADA Technical Document* (TD MRPL) and a *WADA* Technical Letter (TL24).
- It was clarified that a *Therapeutic Use Exemption* is not required for topical ophthalmic administration of a carbonic anhydrase inhibitor (e.g. dorzolamide, brinzolamine) or for local administration of felypressin in dental anesthesia in conjunction with a threshold substance.

PROHIBITED METHODS

M1. Manipulation of Blood and Blood Components

- Voxelotor was added as an example, as it alters the ability of hemoglobin to release oxygen in the body, thereby enhancing arterial oxygen saturation. As a side effect, it increases serum erythropoietin, which has been shown to result in higher hemoglobin concentration in healthy individuals.

PROHIBITED SUBSTANCES

S6. Stimulants

- 1,3-dimethylamylamine and 1,3 DMAA were added as alternative common names for 4-methylhexan-2-amine, while 1,4-dimethylamylamine and 1,4-DMAA were included as synonyms of 5-methylhexan-2-amine.
- Solriamfetol was included in S6b due to its activity as a dopamine and norepinephrine reuptake inhibitor resulting in increases in brain levels of these neurotransmitters and consequent stimulant behavioral effects in preclinical species and in humans.
- Tetryzoline was added as an imidazoline derivative under Exceptions. In addition, it is clarified that otic administration of imidazoline derivatives is not prohibited.

S7. Narcotics

- Tramadol has been on the *WADA* Monitoring Program for some years. Monitoring data has indicated significant *Use* in sports including cycling, rugby and football. Tramadol abuse, with its dose-dependent risks of physical dependence, opiate addiction and overdoses in the general population, is of concern and has led to it being a controlled drug in many countries. Research studies funded by *WADA*[1] have confirmed the potential for tramadol to enhance physical performance in sports. Consequently, as proposed in the draft 2023 *Prohibited List* circulated for consultation to stakeholders in May 2022, *WADA*'s Executive Committee approved, at its 23 September 2022 meeting, prohibiting tramadol during the *In-Competition* period. However, in order to thoroughly and widely communicate the rule changes and to allow sufficient time for information and education, the Executive Committee decided to introduce the prohibition of tramadol and the implementation of the new rule on 1 January 2024. A one-year delay in implementation will allow *Athletes* and medical personnel to better prepare for the change, Laboratories to update their procedures, and sports authorities to develop educational tools.

S9. Glucocorticoids

- It was clarified that otic administration of glucocorticoids is not prohibited.

[1] a) Holgado D, Zandonai T, Zabala M, Hopker J, Perakakis P, Luque-Casado A, Ciria L, Guerra-Hernandez E, Sanabria D. Tramadol effects on physical performance and sustained attention during a 20-min indoor cycling time-trial: A randomised controlled trial. J Sci Med Sport. 2018 Jul;21(7):654-660.
b) Mauger L, Thomas T, Smith S, Fennell C. (2022). Is tramadol a performance enhancing drug? A randomised controlled trial. British Association of Sport and Exercise Medicine Conference, 26-27 May 2022, Brighton, UK.
https://basem.co.uk/wp-content/uploads/2022/08/Mauger_BASEM-Abstract.pdf
https://www.wada-ama.org/en/resources/funded-scientific-research/tramadol-performance-enhancing-drug

SUBSTANCES PROHIBITED IN PARTICULAR SPORTS

P1. Beta-Blockers

- At the request of the World Mini-Golf Federation (WMF), it was agreed to include mini-golf as a sport where beta-blockers are prohibited. The skills required for mini-golf are similar to others found in sports disciplines where beta-blockers are prohibited.
- At the request of the World Under Water Federation (CMAS) beta-blockers will be prohibited *Out-of-competition* as well as *In-competition* in all subdisciplines of freediving, spearfishing and target shooting.

MONITORING PROGRAM

- Dermorphin and its analogs were added to detect patterns of use in sport *In-competition*.
- GnRH analogs in females under 18 years were added to detect patterns of use in sport *In-* and *Out-of-competition*.
- Hypoxen (polyhydroxyphenylene thiosulfonate sodium) was added to evaluate misuse in sport *In-* and *Out-of-competition*.

* For further information on previous modifications and clarifications, please consult the *Prohibited List* Frequently Asked Questions at https://www.wada-ama.org/en/prohibited-list#faq-anchor.

ADDENDUM

S8. Cannabinoids

Background

- Following receipt of requests from a small number of stakeholders to remove (three national anti-doping organizations and one sports federation) or review (two anti-doping organizations) the prohibited *In-competition* status of cannabis from the *Prohibited List*, the *WADA* Executive Committee endorsed, during its meeting of September 2021, a recommendation of the *WADA* List Expert Advisory Group (LiEAG) to initiate a scientific review of the status of cannabis in 2022.
- At present, the main psychoactive component of cannabis, delta9-tetrahydrocannabinol (THC), is prohibited *In-competition* and is reported as an *Adverse Analytical Finding* (*AAF*) by *WADA*-accredited laboratories when the urinary concentration- of carboxy-THC exceeds a threshold of 150 ng/mL with a *Decision Limit* of 180 ng/mL. This threshold was significantly increased in 2013 from 15 ng/mL in order to minimize the number of *AAF*s *In-competition* due to potential *Use* of THC *Out-of-competition*. This means that with the current threshold, *Athletes* most at risk of testing positive are those who have consumed significant quantities of THC close to *In-competition Doping Control* or are chronic users.
- The 2021 World Anti-Doping Code (*Code*) incorporated the new Article 4.2.3 on *Substances of Abuse* for purposes of sanctioning under *Code* Article 10. *Substances of Abuse* are specifically identified on the *Prohibited List* because they are frequently abused in society outside of the context of sport. In this regard, the LiEAG identified THC as a *Substance of Abuse* for the 2021 *Prohibited List*, meaning that if the *Athlete* can establish that the THC use occurred *Out-of-Competition* and was unrelated to sport performance, the standard period of *Ineligibility* is three months, which may be reduced to one month if the *Athlete* satisfactorily completes an approved *Substance of Abuse* treatment program. While it is too early to evaluate the full impact of this new rule on sanctions for THC, preliminary data from 2021 indicates an increase in one- and three-month sanctions, suggesting that this provision is being applied.
- Under the World Anti-Doping Program, the approach to cannabis on the *Prohibited List* has therefore evolved chronologically as follows:

  2013: The urinary threshold increased from 15 ng/mL to 150 ng/mL with a *Decision Limit* of 180 ng/ ml. This significantly affected the number of *AAF*s, from an average of between 400-500 per annum in the years 2009-2012 to fewer than 100 in 2021.

  2018: Cannabidiol (CBD) was removed from the *Prohibited List*, allowing *Athletes* who wish to use it to have access to the non-psychoactive component of cannabis.

  2021: The inclusion of the *Substance of Abuse* provision in the *Code* significantly reduced the length of *Ineligibility* sanctions from a potential two (or even four) years previously to three (or even one) month(s) today for *Athletes* that can establish that the THC use occurred *Out-of-Competition* and was unrelated to sport performance. Under Article 9 of the *Code*, the *Athlete* will still lose their medal, prize and result.

The Review Process:

- Since September 2021, the LiEAG, which is composed of external, international experts in pharmacology, forensic toxicology, drugs of abuse, analytical science, pharmacy, sports medicine, chemistry, endocrinology, internal medicine, regulatory affairs, peptides and growth factors and hematology embarked on a full *de novo* review of the status of delta9-tetrahydrocannabinol (THC) in sport. This extensive review focused on the three criteria set forth by Article 4.3 of the 2021 *Code*, namely:
  a. Medical or other scientific evidence, pharmacological effect or experience that the substance or method, alone or in combination with other substances or methods, has the potential to enhance or enhances sport performance;
  b. Medical or other scientific evidence, pharmacological effects or experience that the *Use* of the substance or method represents an actual or potential health risk to the *Athlete*;
  c. *WADA*'s determination that the *Use* of the substance or method contravenes the spirit of sport described in the introduction to the *Code*.
- Under *Code* Article 4.3, a substance or method must meet at least two of these three criteria to be considered for inclusion in the *Prohibited List*.
- Two subgroups of members of the LiEAG were formed, one to evaluate the effects of THC on performance enhancement (LiEAG-PE) and the other to assess the health risks (LiEAG-H). All existing scientific and medical publications related to these two topics were reviewed, as well as testimonials from *Athletes* who were/are cannabis users, available publicly, including in published surveys.
- This scientific literature review was subsequently discussed with four world-renowned independent, external international experts (Ad-Hoc THC Expert Group) specialized in the pharmacology, toxicology, psychiatry and behavioral properties of THC and cannabinoids, to ensure that all relevant publications had been included and that all relevant scientific and medical aspects had been appropriately evaluated. The experts confirmed that the information review had been extensive and that all relevant data and aspects of the impact of THC on health and performance enhancement had been properly examined.
- With respect to the Spirit of Sport criterion, the LiEAG Chair consulted with the *WADA* Ethics Expert Advisory Group (Ethics EAG). The Ethics EAG considered cannabis *Use*, at this time, to be against the Spirit of Sport across a cluster of areas listed in the *Code*, in particular:
  - Health
  - Excellence in Performance
  - Character and *Education*
  - Respect for rules and laws
  - Respect for self and other participants

They also noted that:

- Further research should be undertaken or supported in relation to *Athletes*' perceptions of cannabis *Use* but also in relation to its potential (including placebo-induced) enhancing effects. These are areas of uncertainty owing to a lack of robust evidence.

- Levels to trigger an *Anti-Doping Rule Violation In-competition* are such that they would be problematic on medical grounds for a competing *Athlete*, or indicative of a chronic habitual user. The present rule is not, as sometimes perceived or represented, an excessive incursion into private lifestyles. Nevertheless, and mindful of shifting public attitudes and laws in certain countries, the weight of evidence and argument, along with broad international restrictive regulatory laws and policies, supports the continuance of cannabis on the *Prohibited List* at this time.
- The LiEAG Chair also consulted with the members of the *WADA Athlete* Committee to seek their opinions on the *Use* of cannabis in sport. The meeting reflected the range of opinions and views of the *Athlete* community.
- In total, there were 10 consultative meetings held prior to the latest meeting of the LiEAG on 25-26 April 2022:
  - three by the LiEAG-PE
  - two by the LiEAG-H
  - one between the LiEAG Chair and the *Athlete* Committee Chair
  - one between the LiEAG Chair and the *Athlete* Committee
  - one between the LiEAG Chair and the Ethics EAG
  - one between the Ad-Hoc THC Expert Group and the LiEAG-PE
  - one between the Ad-Hoc THC Expert Group and the LiEAG-H

Conclusions:

After a thorough assessment and discussion under *WADA Code* Article 4.3, the LiEAG concluded that:

a. There is compelling medical evidence that *Use* of THC is a risk for health, mainly neurological, that has a significant impact on the health of young individuals, a cohort which is overrepresented in *Athletes*.

b. The current body of objective evidence does not support THC enhancement of physiological performance, while the potential for performance enhancement through neuropsychological effects still cannot be excluded.

c. In consideration of the values encompassed by the Spirit of Sport as outlined by the Ethics EAG, and noting in particular that respect for self and other participants includes the safety of fellow-competitors, the *Use* of THC In-competition violates the Spirit of Sport.

Based on these three criteria defined by the *Code*, on the scientific evidence available, THC meets the criteria to be included on the *List*.

Future considerations:

- These conclusions are based on the currently available scientific literature. From the extensive review conducted, it was evident that there is a lack of robust studies evaluating the performance enhancing effects of THC at both the physical and mental level. While anecdotal, self-reported evidence is available, further clinical studies are required to rigorously determine the neuropsychological impact of THC on performance. However, it is also acknowledged that such studies may be difficult to design. For example, it would require enrolling volunteers actively consuming THC, which in most countries is illegal; it would not be a truly blinded placebo study because the subject would feel the effect of THC leading to possible positive bias (to show it has performance enhancing effects and thus should be prohibited) or negative bias (to support exclusion from the *List*); it would be difficult to re-create the stress of a competition; and it is very unlikely that high level *Athletes* could be included as volunteers. Therefore, only those using cannabis and in regions where THC use is legal could be recruited, and in an *Out-of-competition* setting, with a risk of positive or negative bias.
- As with all substances that are prohibited *In-competition* only, *Athletes* in regions where cannabis use is legal are advised to refrain from consuming cannabis for a number of days before the start of competition.

The 2023 Monitoring Program*

world anti-doping agency

The following substances are placed on the 2023 Monitoring Program:

1. Anabolic Agents:

In and ***Out-of-Competition:*** Ecdysterone

2. Peptides Hormones, Growth Factors, Related Substances, and Mimetics:

In and ***Out-of-Competition:*** Gonadotrophin-releasing hormone (GnRH) analogs in females under 18 years only.

3. Beta-2 Agonists:

In and ***Out-of-Competition:*** Salmeterol and vilanterol below the *Minimum Reporting Level*.

4. Hypoxen (polyhydroxyphenylene thiosulfonate sodium):

In and ***Out-of-Competition***

5. Stimulants:

In-Competition only: Bupropion, caffeine, nicotine, phenylephrine, phenylpropanolamine, pipradrol and synephrine.

6. Narcotics:

In-Competition only: Codeine, dermorphin (and its analogs), hydrocodone and tramadol.

*The World Anti-Doping Code (Article 4.5) states: "*WADA, in consultation with Signatories and governments, shall establish a monitoring program regarding substances which are not on the Prohibited List, but which WADA wishes to monitor in order to detect potential patterns of misuse in sport.*"