



2019 WADA LIST OF PROHIBITED SUBSTANCES AND METHODS

PROHIBITED AT ALL TIMES

SUBSTANCES:

NON-APPROVED SUBSTANCES:

If a Substance or Method is not defined in this list, please verify with your Anti-Doping Organization. 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.

ANABOLIC AGENTS

If a Substance or Method is not defined in this list, please verify with your Anti-Doping Organization. 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)
- 1-androsterone (3 α -hydroxy-5 α -androst-1-ene-17-one)
- 1-testosterone (17 β -hydroxy-5 α -androst-1-en-3-one)
- Bolasterone
- Calusterone
- Clostebol
- Danazol ([1,2]oxazolo[4',5':2,3]pregna-4-en-20-yn-17 α -ol)
- Dehydrochloromethyltestosterone (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)
- 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

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)
 Mibolerone
 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
 Stanozolol
 Stenbolone
 Stenbolone
 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 and their metabolites and isomers, when administered exogenously, including but not limited to:

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
 19-norandrostenediol (estr-4-ene-3,17-diol)
 19-norandrostenedione (estr-4-ene-3,17-dione)
 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)
 Boldenone
 Boldione (androsta-1,4-diene-3,17-dione)
 Epiandrosterone (3 β -hydroxy-5 α -androstan-17-one)
 Epi-dihydrotestosterone (17 β -hydroxy-5 β -androstan-3-one)
 Epitestosterone
 Nandrolone (19-nortestosterone)

Prasterone (dehydroepiandrosterone, DHEA, 3 β -hydroxyandrost-5-en-17-one)
Testosterone

2. OTHER ANABOLIC AGENTS

Including, but not limited to:

Clenbuterol
Selective androgen receptor modulators (SARMs), e.g. andarine, LGD-4033, enobosarm (ostarine) and RAD140;
Tibolone
Zeranol
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.

PEPTIDE HORMONES, GROWTH FACTORS, RELATED SUBSTANCES AND MIMETICS

If a Substance or Method is not defined in this list, please verify with your Anti-Doping Organization.

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 (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.

Argon
Cobalt
Daprodustat (GSK1278863)
Molidustat
Roxadustat (FG-4592)
Vadadustat (AKB-6548)
Xenon

1.3 Gata InhibitorS, e.g.

K-11706

1.4 TGF-Beta (TGF-B) Inhibitors, e.g.

Luspatercept
Sotatercept

1.5 Innate Repair Receptor Agonists, e.g.

Asialo EPO
Carbamylated EPO (CEPO)

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
Triptorelin

2.2 Corticotrophins and their Releasing Factors, e.g.

Corticotorelin

2.3 Growth Hormone (GH), its fragments and Releasing Factors, including, but not limited to:

Growth Hormone fragments, e.g. AOD-9604 and hGH 176-191;
Growth Hormone Releasing Hormone (GHRH), e.g. CJC-1293, CJC-1295, sermorelin and tesamorelin;
Growth Hormone Secretagogues (GHS), e.g. lenomorelin (ghrelin) and its mimetics, e.g. 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)
Vascular-Endothelial Growth Factor (VEGF)
Thymosin- β 4, and its derivatives e.g. TB-500;
and other growth factors or growth factor modulators affecting muscle, tendon or ligament protein synthesis/degradation, vascularization, energy utilization, regenerative capacity or fiber type switching.

BETA-2 AGONISTS

If a Substance or Method is not defined in this list, please verify with your Anti-Doping Organization.

All selective and non-selective beta-2 agonists, including all optical isomers, are prohibited; including, but not limited to:

Fenoterol
Formoterol
Higenamine
Indacaterol
Olodaterol
Procaterol
Reproterol
Salbutamol
Salmeterol

Terbutaline
Tretinoquinol (trimetoquinol)
Tulobuterol
Vilanterol

Except:

Inhaled salbutamol: maximum 1600 micrograms over 24 hours; in divided doses not to exceed 800 micrograms over 12 hours starting from any dose;

Inhaled formoterol: maximum delivered dose of 54 micrograms over 24 hours;

Inhaled salmeterol: maximum 200 micrograms over 24 hours.

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.

HORMONE AND METABOLIC MODULATORS

If a Substance or Method is not defined in this list, please verify with your Anti-Doping Organization.

The following hormone and metabolic modulators are prohibited:

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

2. Selective estrogen receptor modulators (SERMs) including, but not limited to:

Raloxifene
Tamoxifen
Toremifene

3. Other anti-estrogenic substances including, but not limited to:

Clomifene
Cyclofenil
Fulvestrant

4. Agents preventing activin receptor IIB activation including, but not limited, to:

Activin A-neutralizing antibodies
Activin receptor IIB competitors (e.g. decoy activin receptors (e.g. ACE-031))

Anti-activin receptor IIB antibodies (bimagrumab)

Myostatin inhibitors (myostatin-neutralizing antibodies (e.g. domagrozumab, landogrozumab, stamulumab), myostatin-binding proteins (e.g. follistatin, myostatin propeptide); agents reducing or ablating myostatin expression)

5. Metabolic modulators:

Activators of the AMP-activated protein kinase (AMPK), eg. AICAR, SR9009;

Peroxisome Proliferator Activated Receptor δ (PPAR δ) agonists, e.g. 2-(2-methyl-4-((4-methyl-2-(4-(trifluoromethyl) phenyl) thiazol-5-yl) methylthio) phenoxy) acetic acid (GW1516, GW501516);

Insulins, and insulin-mimetics;

Meldonium

Trimetazidine

DIURETICS AND MASKING AGENTS

If a Substance or Method is not defined in this list, please verify with your Anti-Doping Organization.

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. 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 ophthalmic use of carbonic anhydrase inhibitors (e.g. dorzolamide, brinzolamide).

Local administration of felypressin in dental anesthesia.

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 (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.

METHODS:

MANIPULATION OF BLOOD AND BLOOD COMPONENTS

If a Substance or Method is not defined in this list, please verify with your Anti-Doping Organization.

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 hemoglobin products, e.g. hemoglobin-based blood substitutes and microencapsulated hemoglobin products, excluding supplemental oxygen by inhalation.

CHEMICAL AND PHYSICAL MANIPULATION

If a Substance or Method is not defined in this list, please verify with your Anti-Doping Organization. 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 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.
3. Any form of intravascular manipulation of the blood or blood components by physical or chemical means.

GENE AND CELL DOPING

If a Substance or Method is not defined in this list, please verify with your Anti-Doping Organization. The following, with the potential to enhance sport performance, are prohibited:

1. The use of polymers of nucleic acids or nucleic acid analogues.
2. The use of gene editing agents designed to alter genome sequences and/or the transcriptional, post-transcriptional or epigenetic regulation of gene expression.
3. The use of normal or genetically modified cells.

PROHIBITED IN-COMPETITION

STIMULANTS:

If a Substance or Method is not defined in this list, please verify with your Anti-Doping Organization. All stimulants, including all optical isomers, e.g. d- and l- where relevant, are prohibited.

Stimulants include:

NON-SPECIFIED STIMULANTS:

Adrafinil
Amfepramone
Amphetamine
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.

SPECIFIED STIMULANTS

Including, but not limited to:

3-methylhexan-2-amine (1,2-dimethylpentylamine)
4-methylhexan-2-amine (methylhexaneamine)
4-methylpentan-2-amine (1,3-dimethylbutylamine)
5-methylhexan-2-amine (1,4-dimethylpentylamine)
Benzfetamine
Cathine**
Cathinone and its analogues, e.g. mephedrone, methedrone, and α -pyrrolidinovalerophenone;
Dimetamfetamine (dimethylamphetamine)
Ephedrine***
Epinephrine**** (adrenaline)
Etamivan
Etilamfetamine
Etilefrine
Famprofazone
Fenbutrazate
Fencamfamin
Heptaminol
Hydroxyamfetamine (parahydroxyamphetamine)
Isometheptene
Levmetamfetamine
Meclofenoxate
Methylenedioxymethamphetamine
Methylephedrine***
Methylphenidate

Nikethamide
Norfenefrine
Octopamine
Oxilofrine (methylnephrine)
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:

Clonidine
Imidazole derivatives for topical/ophthalmic use and those stimulants included in the 2019 Monitoring Program*.

* Bupropion, caffeine, nicotine, phenylephrine, phenylpropanolamine, pipradrol, and synephrine: These substances are included in the 2019 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 anesthetic agents.

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

NARCOTICS

If a Substance or Method is not defined in this list, please verify with your Anti-Doping Organization.

The following narcotics are prohibited:

Buprenorphine
Dextromoramide
Diamorphine (heroin)
Fentanyl, and its derivatives;
Hydromorphone
Methadone
Morphine
Nicomorphine
Oxycodone

Oxymorphone
Pentazocine
Pethidine

CANNABINOIDS

If a Substance or Method is not defined in this list, please verify with your Anti-Doping Organization.

The following cannabinoids are prohibited:

Natural cannabinoids, e.g. cannabis, hashish and marijuana,

Synthetic cannabinoids e.g. D9-tetrahydrocannabinol (THC) and other cannabimimetics.

Except:

GLUCOCORTICOIDS

If a Substance or Method is not defined in this list, please verify with your Anti-Doping Organization.
All glucocorticoids are prohibited when administered by oral, intravenous, intramuscular or rectal routes.

Including but not limited to:

Betamethasone
Budesonide
Cortisone
Deflazacort
Dexamethasone
Fluticasone
Hydrocortisone
Methylprednisolone
Prednisolone
Prednisone
Triamcinolone
Cannabidiol.

PROHIBITED IN PARTICULAR SPORTS

BETA-BLOCKERS

If a Substance or Method is not defined in this list, please verify with your Anti-Doping Organization.

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

Metipranolol

Metoprolol

Nadolol

Oxprenolol

Pindolol

Propranolol

Sotalol

Timolol