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 (5α-androst-1-ene-3β,17β-diol)
   1-androstenedione (5α-androst-1-ene-3,17-dione)
   1-androsterone (3α-hydroxy-5α-androst-1-ene-17-one)
   1-testosterone (17β-hydroxy-5α-androst-1-en-3-one)
   Bolasterone
   Calusterone
   Clostebol
   Danazol ([1,2]oxazolo[4’,5’:2,3]pregna-4-en-20-yn-17α-ol)
   Dehydrochlormethyltestosterone (4-chloro-17β-hydroxy-17α-methylandrosta-1,4-dien-3-one)
   Desoxymethyltestosterone (17α-methyl-5α-androst-2-en-17β-ol and 17α-methyl-5α-androst-3-en-17β-ol)
   Drostanolone
   Ethylestrenol (19-norpregna-4-en-17α-ol)
   Fluoxymesterone
   Formebolone
   Furazabol (17α-methyl [1,2,5]oxadiazolo[3’,4’:2,3]-5α-androstan-17β-ol)
   Gestrinone
Mestanolone
Mesterolone
Metandienone (17β-hydroxy-17α-methylandrosta-1,4-dien-3-one)
Metenolone
Methandriol
Methasterone (17β-hydroxy-2α,17α-dimethyl-5α-androstan-3-one)
Methyldienolone (17β-hydroxy-17α-methyl-estr-4,9-dien-3-one)
Methyl-1-testosterone (17β-hydroxy-17α-methyl-5α-androst-1-en-3-one)
Methylnortestosterone (17β-hydroxy-17α-methyl-estr-4-en-3-one)
Methyltestosterone
Metribolone (methyltrienolone, 17β-hydroxy-17α-methyl-estr-4,9,11-trien-3-one)
Mibolerone
Norbolethone
Norclostebol
Norethandrolone
Oxabolone
Oxandrolone
Oxymesterone
Oxymetholone
Prostanozol (17β-[(tetrahydropyran-2-yl) oxy]-1'H-pyrazolo[3,4:2,3]-5α-androstane)
Quinbolone
Stanozolol
Stanozolol
Stenabolone
Tetrahydrogestrinone (17-hydroxy-18α-homo-19-nor-17α-pregna-4,9,11-trien-3-one)
Trenbolone (17β-hydroxyestr-4,9,11-trien-3-one)

B. Endogenous** AAS and their metabolites and isomers, when administered exogenously, including but not limited to:

4-androstenediol (androst-4-ene-3β,17β-diol)
4-hydroxytestosterone (4,17β-dihydroxyandrost-4-en-3-one)
5-androstenedione (androst-5-ene-3,17-dione)
7α-hydroxy-DHEA
7β-hydroxy-DHEA
7-keto-DHEA
19-norandrostenediol (estr-4-ene-3,17-diol)
19-norandrostenedione (estr-4-ene-3,17-dione)
Androstanolone (5α-dihydrotestosterone, 17β-hydroxy-5α-androstan-3-one)
Androstenediol (androst-5-ene-3β,17β-diol)
Androstenedione (androst-5-ene-3,17-dione)
Boldenone
Boldione (androsta-1,4-diene-3,17-dione)
Epiandrosterone (3β-hydroxy-5α-androstan-17-one)
Epi-dihydrotestosterone (17β-hydroxy-5β-androstan-3-one)
Epitestosterone
Nandrolone (19-nortestosterone)
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.
- Corticorelin

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-β4, 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
- Procateler
- Reproterol
- Salbutamol
- Salmeterol
Terbutaline
Tretoquinol (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 (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)
   - Aminogluthethimide
   - 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 (PPARδ) 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
Etamfetamine
Etilefrine
Famprofazone
Fenbutrazate
Fencamfamin
Heptaminol
Hydroxyamfetamine (parahydroxyamphetamine)
Isomethptene
Levmetamfetamine
Meclofenoxate
Methylenedioxymethamphetamine
Methylephedrine***
Methylphenidate
Nikethamide
Norfenefrine
Octopamine
Oxilofrine (methylsynephrine)
Pemoline
Pentetrazol
Phenethylamine, and its derivatives;
Phenmetrazine
Phenproplomethamine
Propylhexedrine
Pseudoephedrine*****
Selegiline
Sibutramine
Strychnine
Tenamfetamine (methyleneoxyamphetamine)
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
Dextromoramid
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