

Substances and Methods Prohibited at All Times *(In- and out-of-competition)*

Prohibited Substances

S1. Anabolic Agents

Anabolic agents are prohibited.

1. Anabolic Androgenic Steroids (AAS)

a. Exogenous* AAS, including:

1-androstendiol (5 α -androst-1-ene-3 β ,17 β -diol)
1-androstendione (5 α -androst-1-ene-3,17-dione)
bolandiol (19-norandrostenediol)
bolasterone
boldenone
boldione (androsta-1,4-diene-3,17-dione)
calusterone
clostebol
danazol (17 α -ethynyl-17 β -hydroxyandrost-4-eno[2,3-d]isoxazole)
dehydrochlormethyltestosterone
 [4-chloro-17 β -hydroxy-17 α -methylandrosta-1,4-dien-3-one]
desoxymethyltestosterone
 [17 α -methyl-5 α -androst-2-en-17 β -ol]
drostanolone
ethylestrenol (19-nor-17 α -pregn-4-en-17-ol)
fluoxymesterone
formebolone
furazabol
 [17 β -hydroxy-17 α -methyl-5 α -androsta[2,3-c]-furazan]
gestrinone
4-hydroxytestosterone (4,17 β -dihydroxyandrost-4-en-3-one)
mestanolone
mesterolone
metenolone
methandienone (17 β -hydroxy-17 α -methylandrosta-1,4-dien-3-one)
methandriol
methasterone (2 α , 17 α -dimethyl-5 α -androstane-3-one-17 β -ol)

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
nandrolone
19-norandrostenedione (estr-4-ene-3,17-dione)
norboletone
norclostebol
norethandrolone
oxabolone
oxandrolone
oxymesterone
oxymetholone
prostanazol (17 β -hydroxy-5 α -androsta[3,2-c] pyrazole)
quinbolone
stanozolol
stenbolone
1-testosterone (17 β -hydroxy-5 α -androst-1-en-3-one)
tetrahydrogestrinone (18 α -homo-pregna-4,9,11-trien-17 β -ol-3-one)
trenbolone
and other substances with a similar chemical structure or similar biological effect(s).

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

b. Endogenous AAS, when administered exogenously:**

androstenediol (androst-5-ene-3 β ,17 β -diol)
androstenedione (androst-4-ene-3,17-dione)
dihydrotestosterone (17 β -hydroxy-5 α -androstan-3-one)
prasterone (dehydroepiandrosterone, DHEA)
testosterone

and the following metabolites and isomers:

5 α -androstane-3 α ,17 α -diol
5 α -androstane-3 α ,17 β -diol
5 α -androstane-3 β ,17 α -diol
5 α -androstane-3 β ,17 β -diol
androst-4-ene-3 α ,17 α -diol
androst-4-ene-3 α ,17 β -diol
androst-4-ene-3 β ,17 α -diol
androst-5-ene-3 α ,17 α -diol
androst-5-ene-3 α ,17 β -diol
androst-5-ene-3 β ,17 α -diol
4-androstenediol (androst-4-ene-3 β ,17 β -diol)
5-androstenedione (androst-5-ene-3,17-dione)
epi-dihydrotestosterone
epitestosterone
3 α -hydroxy-5 α -androstan-17-one
3 β -hydroxy-5 α -androstan-17-one
19-norandrosterone
19-noretiocholanolone.

2. Other Anabolic Agents

Including but not limited to:

clenbuterol
selective androgen receptor modulators (SARMs)
tibolone
zeranol
zilpaterol.

** "endogenous" refers to a substance which is capable of being produced by the body naturally.

S2. Peptide Hormones, Growth Factors and Related Substances

The following substances and their releasing factors are prohibited:

1. Erythropoiesis-Stimulating Agents (e.g. erythropoietin (EPO), darbepoietin (dEPO), methoxy polyethylene glycol-epoetin beta (CERA), hematide)
2. Chorionic Gonadotrophin (CG) and Luteinizing Hormone (LH) in males
3. Insulins
4. Corticotrophins
5. Growth Hormone (GH), Insulin-like Growth Factor-1 (IGF-1), Mechano Growth Factors (MGFs), Platelet-Derived Growth Factor (PDGF), Fibroblast Growth Factors (FGFs), Vascular-Endothelial Growth Factor (VEGF) and Hepatocyte Growth Factor (HGF) as well as any other growth factor affecting muscle, tendon or ligament protein synthesis/degradation, vascularisation, energy utilization, regenerative capacity or fibre type switching.
6. Platelet-derived preparations (e.g. Platelet Rich Plasma, "blood spinning") administered by intramuscular route. Other routes of administration require a declaration of Use in accordance with the International Standard for Therapeutic Use Exemptions.

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

S3. Beta-2 Agonists

All beta-2 agonists (including both optical isomers where relevant) are prohibited except salbutamol (maximum 1600 micrograms over 24 hours) and salmeterol by inhalation which require a declaration of Use in accordance with the International Standard for Therapeutic Use Exemptions.

The presence of salbutamol in urine in excess of 1000 ng/mL is presumed not to be an intended therapeutic use of the substance and will be considered as an *Adverse Analytical Finding* unless the Athlete proves, through a controlled pharmacokinetic study, that the abnormal result was the consequence of the use of a therapeutic dose (maximum 1600 micrograms over 24 hours) of inhaled salbutamol.

S4. Hormone Antagonists and Modulators

The following classes are prohibited:

1. Aromatase inhibitors *including, but not limited to:*
 - aminoglutethimide
 - anastrozole
 - androsta-1,4,6-triene-3,17-dione (androstatrienedione)
 - 4-androstene-3,6,17 trione (6-oxo)
 - exemestane
 - formestane
 - letrozole
 - 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:*
 - clomiphene
 - cyclofenil
 - fulvestrant.
4. Agents modifying myostatin function(s) *including, but not limited to:*
 - myostatin inhibitors.

S5. Diuretics and Other Masking Agents

Masking agents are prohibited. They include:

diuretics
probenecid
plasma expanders *(e.g. glycerol; intravenous administration of albumin, dextran, hydroxyethyl starch and mannitol)*
and other substances with similar biological effect(s).

Diuretics include:

acetazolamide
amiloride
bumetanide
canrenone
chlorthalidone
etacrynic acid
furosemide
indapamide
metolazone
spironolactone
thiazides *(e.g. bendroflumethiazide, chlorothiazide, hydrochlorothiazide)*
triamterene
and other substances with a similar chemical structure or similar biological effect(s) *(except drospirinone, pamabrom and topical dorzolamide and brinzolamide, which are not prohibited).*

A Therapeutic Use Exemption for diuretics and masking agents is not valid if an *Athlete's* urine contains such substance(s) in association with threshold or sub-threshold levels of an exogenous *Prohibited Substance(s)*.

Prohibited Methods

M1. Enhancement of Oxygen Transfer

The following are prohibited:

1. Blood doping, including the use of autologous, homologous or heterologous blood or red blood cell products of any origin.
2. Artificially enhancing the uptake, transport or delivery of oxygen, including but not limited to perfluorochemicals, efaproxiral (RSR13) and modified haemoglobin products (e.g. haemoglobin-based blood substitutes, microencapsulated haemoglobin products), excluding supplemental oxygen.

M2. Chemical and Physical Manipulation

1. *Tampering*, or attempting to tamper, in order to alter the integrity and validity of *Samples* collected during *Doping Controls* is prohibited. These include but are not limited to catheterisation, urine substitution and/or adulteration (e.g. *proteases*).
2. Intravenous infusions are prohibited except for those legitimately received in the course of hospital admissions or clinical investigations.

M3. Gene Doping

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

1. The transfer of cells or genetic elements (e.g. *DNA, RNA*).
2. The use of pharmacological or biological agents that alter gene expression.

Peroxisome Proliferator Activated Receptor δ (PPAR δ) agonists (e.g. *GW 1516*) and PPAR δ -AMP-activated protein kinase (AMPK) axis agonists (e.g. *AICAR*) are prohibited.

Substances and Methods Prohibited *In-Competition*



In addition to the categories S1 to S5 and M1 to M3 defined above, the following categories are prohibited in competition:

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Prohibited Substances

S6. Stimulants

All stimulants (including both optical isomers where relevant) are prohibited, except imidazole derivatives for topical use and those stimulants included in the 2010 Monitoring Program*.

Stimulants include:

a. Non Specified Stimulants:

adrafinil	fenproporex
amfepramone	furfenorex
amiphenazole	mefenorex
amphetamine	mephentermine
amphetaminil	mesocarb
benfluorex	methamphetamine(d-)
benzphetamine	p-methylamphetamine
benzylpiperazine	methylenedioxyamphetamine
bromantan	methylenedioxyamphetamine
clobenzorex	methylhexaneamine
cocaine	(dimethylpentylamine)
cropropamide	modafinil
crotetamide	norfenfluramine
dimethylamphetamine	phendimetrazine
etilamphetamine	phenmetrazine
famprofazone	phentermine
fencamine	4-phenylpiracetam (carphedon)
fenetylline	prenylamine
fenfluramine	prolintane.

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

* The following substances included in the 2010 Monitoring Program (bupropion, caffeine, phenylephrine, phenylpropranolamine, pipradol, synephrine) are not considered as *Prohibited Substances*.

b. Specified Stimulants (examples):

adrenaline**	norfenefrine
cathine***	octopamine
ephedrine****	oxilofrine
etamivan	parahydroxyamphetamine
etilefrine	pemoline
fenbutrazate	pentetrazol
fencamfamin	phenpromethamine
heptaminol	propylhexedrine
isometheptene	pseudoephedrine*****
levmetamphetamine	selegiline
meclofenoxate	sibutramine
methylephedrine****	strychnine
methylphenidate	tuaminoheptane
nikethamide	

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

** **Adrenaline** associated with local anaesthetic agents or by local administration (e.g. nasal, ophthalmologic) is not prohibited.

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

**** Each of **ephedrine** and **methylephedrine** is prohibited when its concentration in urine is greater than 10 micrograms per milliliter.

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

S7. Narcotics

The following narcotics are prohibited:

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

S8. Cannabinoids

Natural or synthetic Δ^9 -tetrahydrocannabinol (THC) and THC-like cannabinoids (e.g. hashish, marijuana, HU-210) are prohibited.

S9. Glucocorticosteroids

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

In accordance with the International Standard for Therapeutic Use Exemptions, a declaration of *Use* must be completed by the *Athlete* for glucocorticosteroids administered by intraarticular, periarticular, peritendinous, epidural, intradermal and inhalation routes, except as noted below.

Topical preparations when used for auricular, buccal, dermatological (including iontophoresis/phonophoresis), gingival, nasal, ophthalmic and perianal disorders are not prohibited and require neither a Therapeutic Use Exemption nor a declaration of *Use*.

Substances Prohibited in Particular Sports

P1. Alcohol

Alcohol (*ethanol*) is prohibited *In-Competition* only, in the following sports. Detection will be conducted by analysis of breath and/or blood. The doping violation threshold (*haematological values*) is 0.10 g/L.

Aeronautic (FAI)
Archery (FITA)
Automobile (FIA)
Karate (WKF)

Modern Pentathlon (UIPM)
for disciplines involving shooting
Motorcycling (FIM)
Ninepin and Tenpin Bowling (FIQ)
Powerboating (UIM)

P2. Beta-Blockers

Unless otherwise specified, beta-blockers are prohibited *In-Competition* only, in the following sports.

Aeronautic (FAI)
Archery (FITA)
also prohibited Out-of-Competition
Automobile (FIA)
Billiards and Snooker (WCBS)
Bobsleigh (FIBT)
Boules (CMSB)
Bridge (FMB)
Curling (WCF)
Golf (IGF)
Gymnastics (FIG)
Motorcycling (FIM)

Modern Pentathlon (UIPM)
for disciplines involving shooting
Ninepin and Tenpin Bowling (FIQ)
Powerboating (UIM)
Sailing (ISAF)
for match race helms only
Shooting (ISSF, IPC)
also prohibited Out-of-Competition
Skiing/Snowboarding (FIS)
in ski jumping, freestyle aerials/half-pipe and snowboard halfpipe/big air
Wrestling (FILA)

Beta-blockers include, but are not limited to, the following:

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