



Prohibited List 2008

International Standard



**WORLD
ANTI-DOPING
AGENCY**

play true

The 2008 Prohibited List

This list shall come into effect on 1 January 2008

Published by:


The World Anti-Doping Agency

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Please be advised that this information is subject to change at anytime and that in case of any discrepancy between this information and the World Anti-Doping Code, the Code prevails. Always check with your International Federation or National Federation for the most up-to-date anti-doping regulations.

The official text of the *Prohibited List* shall be maintained by WADA and shall be published in English, French and Spanish. In the event of any conflict between the translations and original English text, the English version posted at www.wada-ama.org shall prevail.



The World Anti-Doping Agency (WADA) was established in 1999 to promote, coordinate, and monitor at the international level the fight against doping in sport in all its forms. WADA is composed and funded equally by the Sports Movement and Governments of the world.



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play true

What is WADA?

The World Anti-Doping Agency (WADA) is the international independent organization responsible for promoting, coordinating, and monitoring the fight against doping in sport in all its forms.

WADA works towards a vision of the world that values and fosters doping free sport.

What is the World Anti-Doping Code?

The World Anti-Doping Code (Code) is the document that harmonizes regulations regarding anti-doping in sport across all sports and all countries of the world. The Code provides a framework for anti-doping policies, rules, and regulations for sport organizations and public authorities so that there may be a level playing field for all athletes worldwide.

What is the List?

The List of Prohibited Substances and Methods (List), is the International Standard that athletes should use to know what is prohibited in- and out-of competition. The List also indicates whether particular substances are banned in particular sports. The List is updated annually, and the most current edition is posted on WADA's Web site at www.wada-ama.org.

What does “play true” mean?

“play true” is WADA's tagline. Along with the WADA logo—the green equal sign centered in a black square seen above left—“play true” expresses the universal spirit of sport practiced naturally within the rules and free from artificial enhancements. The equal sign represents fairness and equity, while the square represents the rules all athletes agree to respect. WADA's colors are also significant: black stands for the fairness of the referee while green evokes the image of health, nature, and the traditional field of play.



How is the List updated?

WADA assumed responsibility for the List in 2004 following implementation of the Code and the four International Standards (List, Testing, Laboratories, and Therapeutic Use Exemptions). According to the Code, if a substance or method is found to meet two of three criteria (enhances performance, poses a threat to athlete health, violates the spirit of sport), then it is possible that it be considered for placement on the List.

The List is developed through a highly consultative year-long process, beginning with the circulation of a draft List among more than 1,700 stakeholders for comment. The comments received are processed by WADA's scientific committees which are composed of international scientific and anti-doping experts. First, WADA's List Committee analyzes stakeholder input and presents its conclusions to WADA's Health, Medical and Research Committee, who in turn submits its final recommendations to WADA's Executive Committee at its annual September meeting. The Executive Committee, WADA's ultimate policy-making body, discusses the recommendations and makes a final decision.

The new List is published online by October 1, and goes into effect on January 1 of the following year.





Substances and Methods Prohibited *at All Times*

(In- and Out-Of-Competition)



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 -androstan[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)
methandirol
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)
methylnoretestosterone (17 β -hydroxy-17 α -methylestr-4-en-3-one)
methyltrienolone
 (17 β -hydroxy-17 α -methylestra-4,9,11-trien-3-one)
methyltestosterone
mibolerone

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

nandrolone
19-norandrostenedione (estr-4-ene-3,17-dione)
norboletone
norclostebol
norethandrolone
oxabolone
oxandrolone
oxymesterone
oxymetholone
prostanazol
 [[3,2-c]pyrazole-5 α -etioallocholane-17 β -tetrahydropyranol]
quinbolone
stanozolol
stenbolone
1-testosterone (17 β -hydroxy-5 α -androst-1-en-3-one)
tetrahydrogestrinone (18a-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).

b. Endogenous** AAS:

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
3 α -hydroxy-5 α -androstan-17-one
3 β -hydroxy-5 α -androstan-17-one
19-norandrosterone
19-noretiocholanolone.

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

Where an anabolic androgenic steroid is capable of being produced endogenously, a *Sample* will be deemed to contain such *Prohibited Substance* and an *Adverse Analytical Finding* will be reported where the concentration of such *Prohibited Substance* or its metabolites or markers and/or any other relevant ratio(s) in the *Athlete's Sample* so deviates from the range of values normally found in humans that it is unlikely to be consistent with normal endogenous production. A *Sample* shall not be deemed to contain a *Prohibited Substance* in any such case where an *Athlete* proves that the concentration of the *Prohibited Substance* or its metabolites or markers and/or the relevant ratio(s) in the *Athlete's Sample* is attributable to a physiological or pathological condition.

In all cases, and at any concentration, the *Athlete's Sample* will be deemed to contain a *Prohibited Substance* and the laboratory will report an *Adverse Analytical Finding* if, based on any reliable analytical method (e.g. IRMS), the laboratory can show that the *Prohibited Substance* is of exogenous origin. In such case, no further investigation is necessary.

When a value does not so deviate from the range of values normally found in humans and any reliable analytical method (e.g. IRMS) has not determined the exogenous origin of the substance, but if there are indications, such as a comparison to endogenous reference steroid profiles, of a possible *Use* of a *Prohibited Substance*, or when a laboratory has reported a T/E ratio greater than four (4) to one (1) and any reliable analytical method (e.g. IRMS) has not determined the exogenous origin of the substance, further investigation shall be conducted by the relevant *Anti-Doping Organization* by reviewing the results of any previous test(s) or by conducting subsequent test(s).

When such further investigation is required the result shall be reported by the laboratory as atypical and not as adverse. If a laboratory reports, using an additional reliable analytical method (e.g. IRMS), that the *Prohibited Substance* is of exogenous origin, no further investigation is necessary and the *Sample* will be deemed to contain such *Prohibited Substance*. When an additional reliable analytical method (e.g. IRMS) has not been applied, and a minimum of three previous test results are not available, a longitudinal profile of the *Athlete* shall be established by performing three no-advance notice tests in a period of three months by the relevant *Anti-Doping Organization*. The result that triggered this longitudinal study shall be reported as atypical. If the longitudinal profile of the *Athlete* established by the subsequent tests is not physiologically normal, the result shall then be reported as an *Adverse Analytical Finding*.

In extremely rare individual cases, boldenone of endogenous origin can be consistently found at very low nanograms per milliliter (ng/mL) levels in urine. When such a very low concentration of boldenone is reported by a laboratory and the application of any reliable analytical method (e.g. IRMS) has not determined the exogenous origin of the substance, further investigation may be conducted by subsequent test(s).

For 19-norandrosterone, an *Adverse Analytical Finding* reported by a laboratory is considered to be scientific and valid proof of exogenous origin of the *Prohibited Substance*. In such case, no further investigation is necessary.

Should an *Athlete* fail to cooperate in the investigations, the *Athlete's Sample* shall be deemed to contain a *Prohibited Substance*.

2. Other Anabolic Agents, including but not limited to:

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

S2. Hormones and Related Substances

The following substances and their releasing factors, are prohibited:

1. Erythropoietin (EPO)
2. Growth Hormone (hGH), Insulin-like Growth Factors (e.g. IGF-1)
Mechano Growth Factors (MGFs)
3. Gonadotrophins (e.g. LH, hCG) *prohibited in males only*
4. Insulins
5. Corticotrophins

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

Unless the *Athlete* can demonstrate that the concentration was due to a physiological or pathological condition, a *Sample* will be deemed to contain a *Prohibited Substance* (as listed above) where the concentration of the *Prohibited Substance* or its metabolites and/or relevant ratios or markers in the *Athlete's Sample* so exceeds the range of values normally found in humans that it is unlikely to be consistent with normal endogenous production.

If a laboratory reports, using a reliable analytical method, that the *Prohibited Substance* is of exogenous origin, the *Sample* will be deemed to contain a *Prohibited Substance* and shall be reported as an *Adverse Analytical Finding*.

S3. Beta-2 Agonists

All beta-2 agonists including their D- and L-isomers are prohibited.

As an exception, formoterol, salbutamol, salmeterol and terbutaline when administered by inhalation, require an abbreviated Therapeutic Use Exemption.

Despite the granting of any form of Therapeutic Use Exemption, a concentration of salbutamol (free plus glucuronide) greater than 1000 ng/mL will be considered an *Adverse Analytical Finding* unless the *Athlete* proves that the abnormal result was the consequence of the therapeutic use of inhaled salbutamol.

S4. Hormone Antagonists and Modulators

The following classes are prohibited:

1. Aromatase inhibitors *including, but not limited to:*
 - anastrozole
 - letrozole
 - aminoglutethimide
 - exemestane
 - formestane
 - 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*

epitestosterone
probenecid
alpha-reductase inhibitors (*e.g. finasteride, dutasteride*)
plasma expanders (*e.g. albumin, dextran, hydroxyethyl starch*)
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 for drosperinone, which is not prohibited).

* A Therapeutic Use Exemption is not valid if an *Athlete's* urine contains a diuretic in association with threshold or sub-threshold levels of a **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).

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 alteration.
2. Intravenous infusion is prohibited. In an acute medical situation where this method is deemed necessary, a retroactive Therapeutic Use Exemption will be required.

M3. Gene Doping

The non-therapeutic use of cells, genes, genetic elements, or of the modulation of gene expression, having the capacity to enhance athletic performance, is prohibited.





Substances and Methods Prohibited *In-Competition*

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

Substances and Methods Prohibited *In-Competition*

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Prohibited Substances

S6. Stimulants

All stimulants (including both their (D- & L-) optical isomers where relevant) are prohibited, except imidazole derivatives for topical use and those stimulants included in the 2008 Monitoring Program.*

Stimulants include:

adrafinil	fencamine
adrenaline**	fenetylline
amfepramone	fenfluramine
amiphenazole	fenproporex
amphetamine	furfenorex
amphetaminil	heptaminol
benzphetamine	isometheptene
benzylpiperazine	levmethamfetamine
bromantan	meclofenoxate
cathine***	mefenorex
clobenzorex	mephentermine
cocaine	mesocarb
cropropamide	methamphetamine (D-)
crotetamide	methylenedioxymphetamine
cyclazodone	methylenedioxymethamphetamine
dimethylamphetamine	p-methylamphetamine
ephedrine****	methylephedrine****
etamivan	methylphenidate
etilamphetamine	modafinil
etilefrine	nikethamide
famprofazone	norfenefrine
fenbutrazate	norfenfluramine
fencamfamin	octopamine

* The following substances included in the 2008 Monitoring Program (bupropion, caffeine, phenylephrine, phenylpropanolamine, pipradol, pseudoephedrine, synephrine) are not considered as *Prohibited Substances*.

** **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.



ortetamine
oxilofrine
parahydroxyamphetamine
pemoline
pentetrazol
phendimetrazine
phenmetrazine
phenpromethamine
phentermine
4-phenylpiracetam (carphedon)
prolintane
propylhexedrine
selegiline
sibutramine
strychnine
tuaminoheptane
and other substances with a similar chemical structure or similar biological effect(s).

A stimulant not expressly mentioned as an example under this section should be considered as a Specified Substance only if the *Athlete* can establish that the substance is particularly susceptible to unintentional anti-doping rule violations because of its general availability in medicinal products or is less likely to be successfully abused as a doping agent.

S7. Narcotics

The following narcotics are prohibited:

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



S8. Cannabinoids

Cannabinoids (e.g. hashish, marijuana) are prohibited.

S9. Glucocorticosteroids

All glucocorticosteroids are prohibited when administered orally, rectally, intravenously or intramuscularly. Their use requires a Therapeutic Use Exemption approval.

Other routes of administration (intraarticular/ periarticular/ peritendinous/ epidural/ intradermal injections and inhalation) require an Abbreviated Therapeutic Use Exemption except as noted below.

Topical preparations when used for dermatological (including iontophoresis/phonophoresis), auricular, nasal, ophthalmic, buccal, gingival and perianal disorders are not prohibited and do not require any form of Therapeutic Use Exemption.





Substances Prohibited
in Particular Sports



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) for each Federation is reported in parenthesis.

Aeronautic (FAI)	(0.20 g/L)	Modern Pentathlon (0.10 g/L)
Archery (FITA, IPC)	(0.10 g/L)	(UIPM)
Automobile (FIA)	(0.10 g/L)	<i>for disciplines involving shooting</i>
Boules (IPC bowls)	(0.10 g/L)	Motorcycling (FIM) (0.10 g/L)
Karate (WKF)	(0.10 g/L)	Powerboating (UIM) (0.30 g/L)

P2. Beta-Blockers

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

Aeronautic (FAI)	Modern Pentathlon (UIPM)
Archery (FITA, IPC)	<i>for disciplines involving shooting</i>
<i>also prohibited Out-of-Competition</i>	Nine-pin bowling (FIQ)
Automobile (FIA)	Powerboating (UIM)
Billiards (WCBS)	Sailing (ISAF)
Bobsleigh (FIBT)	<i>for match race helms only</i>
Boules (CMSB, IPC bowls)	Shooting (ISSF, IPC)
Bridge (FMB)	<i>also prohibited Out-of-Competition</i>
Curling (WCF)	Skiing/Snowboarding (FIS)
Gymnastics (FIG)	<i>in ski jumping, freestyle aerials/half-pipe and snowboard halfpipe/big air</i>
Motorcycling (FIM)	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.

Specified Substances



Specified Substances*

“Specified Substances”* are listed below:

All inhaled beta-2 agonists

except salbutamol (free plus glucuronide) greater than 1000 ng/mL and clenbuterol (listed under S1.2: Other Anabolic Agents);

alpha-reductase inhibitors

probenecid;

cathine

cropropamide

crotetamide

ephedrine

etamivan

famprofazone

heptaminol

isometheptene

levmethamphetamine

meclofenoxate

p-methylamphetamine

methylephedrine

nikethamide

norfenefrine

octopamine

ortetamine

oxilofrine

phenpromethamine

propylhexedrine

selegiline

sibutramine

tuaminoheptane

and any other stimulant not expressly listed under section S6 for which the *Athlete* establishes that it fulfils the conditions described in section S6;

cannabinoids;

All glucocorticosteroids;

alcohol;

All beta blockers.

* “The Prohibited List may identify specified substances which are particularly susceptible to unintentional anti-doping rule violations because of their general availability in medicinal products or which are less likely to be successfully abused as doping agents.” A doping violation involving such substances **may** result in a reduced sanction provided that the “...*Athlete* can establish that the Use of such a specified substance was not intended to enhance sport performance...”

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