

THE WORLD ANTI-DOPING CODE  
**INTERNATIONAL  
STANDARD**



# PROHIBITED LIST

JANUARY 2020



**WORLD  
ANTI-DOPING  
AGENCY**  
play true

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.

**This List shall come into effect on 1 January 2020**

世界運動禁藥管制規範

# 國際標準



# 2020年運動禁藥清單 PROHIBITED LIST

JANUARY 2020



運動禁藥清單文字內容由世界運動禁藥管制組織制定，並以英文及法文出版。

英法版本如有牴觸，以英文版為準。(中文版如有疑義，以英文版為準。)

本清單自 2020 年 1 月 1 日起生效

# SUBSTANCES & METHODS PROHIBITED AT ALL TIMES

(IN- AND OUT-OF-COMPETITION)

IN ACCORDANCE WITH ARTICLE 4.2.2 OF THE WORLD ANTI-DOPING CODE, ALL *PROHIBITED SUBSTANCES* SHALL BE CONSIDERED AS "*SPECIFIED SUBSTANCES*" EXCEPT SUBSTANCES IN CLASSES S1, S2, S4.4, S4.5, S6.A, AND *PROHIBITED METHODS* M1, M2 AND M3.

## PROHIBITED SUBSTANCES

### S0 NON-APPROVED 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.

### S1 ANABOLIC AGENTS

Anabolic agents are prohibited.

#### 1. ANABOLIC ANDROGENIC STEROIDS (AAS)

when administered exogenously, including but not limited to:

**1-A**ndrostenediol (5 $\alpha$ -androst-1-ene-3 $\beta$ ,17 $\beta$ -diol);  
1-Androstenedione (5 $\alpha$ -androst-1-ene-3,17-dione);  
1-Androsterone (3 $\alpha$ -hydroxy-5 $\alpha$ -androst-1-ene-17-one);  
**1-E**piandrosterone (3 $\beta$ -hydroxy-5 $\alpha$ -androst-1-ene-17-one);  
**1-T**estosterone (17 $\beta$ -hydroxy-5 $\alpha$ -androst-1-en-3-one);  
**4-A**ndrostenediol (androst-4-ene-3 $\beta$ ,17 $\beta$ -diol);  
**4-H**ydroxytestosterone (4,17 $\beta$ -dihydroxyandrost-4-en-3-one);  
**5-A**ndrostenedione (androst-5-ene-3,17-dione);  
**7 $\alpha$** -hydroxy-DHEA;  
**7 $\beta$** -hydroxy-DHEA;  
**7-K**eto-DHEA;  
**19-N**orandrostenediol (estr-4-ene-3,17-diol);  
19-Norandrostenedione (estr-4-ene-3,17-dione);  
**A**ndrostanolone (5 $\alpha$ -dihydrotestosterone, 17 $\beta$ -hydroxy-5 $\alpha$ -androst-3-one);  
Androstenediol (androst-5-ene-3 $\beta$ ,17 $\beta$ -diol);  
Androstenedione (androst-4-ene-3,17-dione);  
**B**olasterone;  
Boldenone;  
Boldione (androsta-1,4-diene-3,17-dione);

**C**alusterone;  
Clostebol;  
**D**anazol ([1,2]oxazolo[4',5':2,3]pregna-4-en-20-yn-17 $\alpha$ -ol);  
Dehydrochlormethyltestosterone (4-chloro-17 $\beta$ -hydroxy-17 $\alpha$ -methylandrosta-1,4-dien-3-one);  
Desoxymethyltestosterone (17 $\alpha$ -methyl-5 $\alpha$ -androst-2-en-17 $\beta$ -ol and 17 $\alpha$ -methyl-5 $\alpha$ -androst-3-en-17 $\beta$ -ol);  
Drostanolone;  
**E**piandrosterone (3 $\beta$ -hydroxy-5 $\alpha$ -androst-17-one);  
Epi-dihydrotestosterone (17 $\beta$ -hydroxy-5 $\beta$ -androst-3-one);  
Epitestosterone;  
Ethylestrenol (19-norpregna-4-en-17 $\alpha$ -ol);  
**F**luoxymesterone;  
Formebolone;  
Furazabol (17 $\alpha$ -methyl [1,2,5]oxadiazolo[3',4':2,3]-5 $\alpha$ -androst-17 $\beta$ -ol);  
**G**estrinone;  
**M**estanolone;  
Mesterolone;  
Metandienone (17 $\beta$ -hydroxy-17 $\alpha$ -methylandrosta-1,4-dien-3-one);  
Metenolone;  
Methandriol;  
Methasterone (17 $\beta$ -hydroxy-2 $\alpha$ ,17 $\alpha$ -dimethyl-5 $\alpha$ -androst-3-one);  
Methyl-1-testosterone (17 $\beta$ -hydroxy-17 $\alpha$ -methyl-5 $\alpha$ -androst-1-en-3-one);  
Methylclostebol;  
Methyldienolone (17 $\beta$ -hydroxy-17 $\alpha$ -methylestra-4,9-dien-3-one);  
Methylnortestosterone (17 $\beta$ -hydroxy-17 $\alpha$ -methylestr-4-en-3-one);  
Methyltestosterone;  
Metribolone (methyltrienolone, 17 $\beta$ -hydroxy-17 $\alpha$ -methylestra-4,9,11-trien-3-one);  
Mibolerone;  
**N**androlone (19-nortestosterone);  
Norboletone;

## 隨時禁用的物質與方法

(賽內及賽外)

依世界運動禁藥管制規範 4.2.2 條規定，除禁用物質 S1, S2, S4.4, S4.5, S4.6, S6.A 及禁用方法 M1, M2, M3 外，所有禁用物質應視為「特定物質」

### 禁用物質

#### S0 未經核可物質

任何未列入禁用清單且未經政府衛生主管機關核准用於人體治療（例如：藥物仍在臨床前實驗階段或醫學臨床研究階段或取消許可、設計師藥物、核准只得使用於動物之物質）之藥用物質。

#### S1 同化性藥物

禁止使用同化性藥物。

##### 1. 同化性雄性類固醇 (AAS)

當由身體外補充時，包含但不僅限下列物質：

1-Androstenediol (5 $\alpha$ -androst-1-ene-3 $\beta$ ,17 $\beta$ -diol);  
 1-Androstenedione (5 $\alpha$ -androst-1-ene-3,17-dione);  
 1-Androsterone (3 $\alpha$ -hydroxy-5 $\alpha$ -androst-1-ene-17-one);  
 1-Epiandrosterone (3 $\beta$ -hydroxy-5 $\alpha$ -androst-1-ene-17-one);  
 1-Testosterone (17 $\beta$ -hydroxy-5 $\alpha$ -androst-1-en-3-one);  
 4-Androstenediol (androst-4-ene-3 $\beta$ ,17 $\beta$ -diol);  
 4-Hydroxytestosterone (4,17 $\beta$ -dihydroxyandrost-4-en-3-one);  
 5-Androstenedione (androst-5-ene-3,17-dione);  
 7 $\alpha$ -hydroxy-DHEA;  
 7 $\beta$ -hydroxy-DHEA;  
 7-Keto-DHEA;  
 19-Norandrostenediol (estr-4-ene-3,17-diol);  
 19-Norandrostenedione (estr-4-ene-3,17-dione);  
 Androstanolone (5 $\alpha$ -dihydrotestosterone, 17 $\beta$ -hydroxy-5 $\alpha$ -androst-3-one);  
 Androstenediol (androst-5-ene-3 $\beta$ ,17 $\beta$ -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-17 $\alpha$ -ol);  
 Dehydrochlormethyltestosterone (4-chloro-17 $\beta$ -hydroxy-17 $\alpha$ -methylandrosta-1,4-dien-3-one);  
 Desoxymethyltestosterone (17 $\alpha$ -methyl-5 $\alpha$ -androst-2-en-17 $\beta$ -ol and 17 $\alpha$ -methyl-5 $\alpha$ -androst-3-en-17 $\beta$ -ol);  
 Drostanolone;  
 Epiandrosterone (3 $\beta$ -hydroxy-5 $\alpha$ -androst-17-one);  
 Epi-dihydrotestosterone (17 $\beta$ -hydroxy-5 $\beta$ -androst-3-one);  
 Epitestosterone;  
 Ethylestrenol (19-norpregna-4-en-17 $\alpha$ -ol);  
 Fluoxymesterone;  
 Formebolone;  
 Furazabol (17 $\alpha$ -methyl [1,2,5]oxadiazolo[3',4':2,3]-5 $\alpha$ -androst-17 $\beta$ -ol);  
 Gestrinone;  
 Mestanolone;  
 Mesterolone;  
 Metandienone (17 $\beta$ -hydroxy-17 $\alpha$ -methylandrosta-1,4-dien-3-one);  
 Metenolone;  
 Methandriol;  
 Methasterone (17 $\beta$ -hydroxy-2 $\alpha$ ,17 $\alpha$ -dimethyl-5 $\alpha$ -androst-3-one);  
 Methyl-1-testosterone (17 $\beta$ -hydroxy-17 $\alpha$ -methyl-5 $\alpha$ -androst-1-en-3-one);  
 Methylclostebol;  
 Methyldienolone (17 $\beta$ -hydroxy-17 $\alpha$ -methylestra-4,9-dien-3-one);  
 Methylnortestosterone (17 $\beta$ -hydroxy-17 $\alpha$ -methylestr-4-en-3-one);  
 Methyltestosterone;  
 Metribolone (methyltrienolone, 17 $\beta$ -hydroxy-17 $\alpha$ -methylestra-4,9,11-trien-3-one);  
 Mibolerone;  
 Nandrolone (19-nortestosterone);  
 Norboletone;

Norclostebol (4-chloro-17 $\beta$ -ol-estr-4-en-3-one);  
 Norethandrolone;  
**O**xabolone;  
 Oxandrolone;  
 Oxymesterone;  
 Oxymetholone;  
**P**rasterone (dehydroepiandrosterone, DHEA,  
 3 $\beta$ -hydroxyandrost-5-en-17-one);  
 Prostanazol (17 $\beta$ -[(tetrahydropyran-2-yl)oxy]-1'H-  
 pyrazolo[3,4:2,3]-5 $\alpha$ -androstane);  
**Q**uinbolone;  
**S**tanazolol;  
 Stenbolone;  
**T**estosterone;  
 Tetrahydrogestrinone (17-hydroxy-18a-homo-19-nor-17 $\alpha$ -  
 pregna-4,9,11-trien-3-one);  
 Trenbolone (17 $\beta$ -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, selective androgen receptor modulators  
 [SARMs, e.g. andarine, LGD-4033 (ligandrol), enobosarm  
 (ostarine) and RAD140], tibolone, zeranol and zilpaterol.

## S2 PEPTIDE HORMONES, GROWTH FACTORS, RELATED SUBSTANCES, AND MIMETICS

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 polyeth-  
 ylene 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);  
 Molidustat (BAY 85-3934);  
 Roxadustat (FG-4592);  
 Vadadustat (AKB-6548);  
 Xenon.
  - 1.3 GATA inhibitors, e.g.  
 K-11706.
  - 1.4 TGF-beta (TGF- $\beta$ ) signalling inhibitors, e.g.  
 Luspatercept;  
 Sotatercept.
  - 1.5 Innate repair receptor agonists, e.g.  
 Asialo EPO;  
 Carbamylated EPO (CEPO).

Norclostebol (4-chloro-17 $\beta$ -ol-estr-4-en-3-one);  
 Norethandrolone;  
 Oxabolone;  
 Oxandrolone;  
 Oxymesterone;  
 Oxymetholone;  
 Prasterone (dehydroepiandrosterone, DHEA, 3 $\beta$ -hydroxyandrost-5-en-17-one);  
 Prostanazol (17 $\beta$ -[(tetrahydropyran-2-yl)oxy]-1'H-pyrazolo[3,4:2,3]-5 $\alpha$ -androstane);  
 Quinbolone;  
 Stanozolol;  
 Stenbolone;  
 Testosterone;  
 Tetrahydrogestrinone (17-hydroxy-18 $\alpha$ -homo-19-nor-17 $\alpha$ -pregna-4,9,11-trien-3-one);  
 Trenbolone (17 $\beta$ -hydroxyestr-4,9,11-trien-3-one);

及其他具有類似化學結構或相似生物作用的物質。

其他同化性物質

包含但不僅限於：

Clenbuterol、選擇性雄性激素受體調節劑 (SARMS, 例如：LGD4033 (ligandrol), Enobasrm (ostarine) 和 RAD140)、tibolone, zeranol 和 zipaterol。

**S2 胜肽荷爾蒙、生長因子、相關物質及類似物**

以下禁用物質及其他具有類似化學結構或相似生物作用的物質均禁用：

**1 紅血球生成素 (EPO) 及刺激劑，包括但不僅限於下列：**

**1.1 紅血球生成素受體致效劑，例如：**

長效紅血球生成素 (dEPO)  
 紅血球生成素 (EPO)  
 紅血球生成素製劑 (例如紅血球生成素Fc 融合蛋白、超長效紅血球生成素 (CERA))  
 類紅血球生成素及其製劑 (例如：CNTO 530、人工合成胜肽紅血球生成素)

**1.2 缺氧誘導因子 (HIF) 活化劑，例如：**

鈷  
 Daprodustat (GSK1278863);  
 Molidustat (BAY 85-3934);  
 Roxadustat (FG-4592);  
 Vadadustat (AKB-6548);  
 氫氣

**1.3 GATA 抑制劑，例如：K-11706.**

**1.4 乙型轉化生長因子 (TGF- $\beta$ ) 訊號傳遞抑制劑，例如：**

Luspatercept;  
 Sotatercept.

**1.5 先天修復受體致效劑，例如：**

無唾液酸紅血球生成素  
 氨甲醯化紅血球生成素 (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 and 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) and its analogues, 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:

**F**ibroblast Growth Factors (FGFs);  
**H**epatocyte Growth Factor (HGF);  
**I**nsulin-like Growth Factor-1 (IGF-1) and its analogues;  
**M**echano Growth Factors (MGFs);  
**P**latelet-Derived Growth Factor (PDGF);  
**T**hymosin- $\beta$ 4 and its derivatives e.g. TB-500;  
**V**ascular-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.

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## S3 BETA-2 AGONISTS

All selective and non-selective beta-2 agonists, including all optical isomers, are prohibited.

Including, but not limited to:

**F**enoterol;  
**F**ormoterol;  
**H**igenamine;  
**I**ndacaterol;  
**O**lodaterol;  
**P**rocaterol;  
**R**eproterol;  
**S**albutamol;  
**S**almeterol;  
**T**erbutaline;  
Tretoquinol (trimetoquinol);  
Tulobuterol;  
**V**ilanterol.

### 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.

- 2 胜肽荷爾蒙及其釋放因子
- 2.1 人類絨毛膜性腺激素 (CG) 及黃體化激素 (LH)，及相關釋放因子，男性禁用，例如：  
Buserelin、deslorelin、gonadorelin、goserelin、柳菩林、nafarelin 及 triptorelin;
- 2.2 促腎上腺皮質素及相關釋放因子，例如：Corticotropin
- 2.3 生長激素 (GH)，其片段及相關釋放因子，包括但不僅限於下列：  
生長激素片段，例如：  
AOD-9604、hGH176-191;  
生長素釋放素 (GHRH) 及其類似物，例如：  
CJC-1293、CJC-1295、sermorelin、tesamorelin;  
內生型生長荷爾蒙分泌素 (GHS)，例如：  
飢餓素 (ghrelin) 及其模擬劑如 Anamorelin、ipamorelin、macimorelin 及 tabimorelin;  
生長激素釋放胜肽 (GHRPs)，例如：  
Alexamorelin、GHRP-1、GHRP-2 (pramorelin)、GHRP-3、GHRP-4、GHRP-5、GHRP-6 及 examorelin (hexarelin).
- 3 生長因子及生長因子調節劑，包括但不僅限於下列：  
成纖維細胞生長因子 (FGFs)  
肝細胞生長因子 (HGF)  
似胰島素生長因子 (IGF-1) 及其類似物  
機械生長因子 (MGFs)  
血小板衍生性生長因子 (PDGF)  
胸腺素 beta 4 及其衍生物，如 TB-500  
血管內皮生長因子 (VEGF)

及其他影響肌肉、肌腱、韌帶蛋白、合成/分解、血管形成、能量利用、再生能力或纖維改變之生長因子或生長因子調節劑。

### S3 乙二型交感神經作用劑 (致效劑)

所有選擇性及非選擇性乙二型交感神經作用劑均禁止使用，包括所有相關光學異構物。

包括但不僅限於下列：

Fenoterol;  
Formoterol;  
Higenamine;  
Indacaterol;  
Olodaterol;  
Procaterol;  
Reproterol;  
Salbutamol;  
Salmeterol;  
Terbutaline;  
Tretiquinol (trimetoquinol);  
Tulobuterol;  
Vilanterol.

下列除外：

- 吸入式 salbutamol：24小時內分次劑量總上限1600微克，12小時內不得超過800微克
- 吸入式 formoterol：24小時內使用劑量上限54微克
- 吸入式 salmeterol：24小時內用量上限200微克

尿液中 salbutamol 濃度超過1000奈克/毫升或 formoterol 濃度超過40奈克/毫升，係不符治療用途，將被視為不利檢測報告 (AAF)，除非選手能提出藥物動力學對照研究，證明是項異常檢測結果係因使用上述最高劑量範圍內之治療劑 (吸入) 所致。



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## S4 HORMONE AND METABOLIC MODULATORS

The following hormone and metabolic modulators are prohibited:

**1.** Aromatase inhibitors including, but not limited to:

- 2-Androst-enol** (5 $\alpha$ -androst-2-en-17-ol);
- 2-Androst-enone (5 $\alpha$ -androst-2-en-17-one);
- 3-Androst-enol** (5 $\alpha$ -androst-3-en-17-ol);
- 3-Androst-enone (5 $\alpha$ -androst-3-en-17-one);
- 4-Androst-ene-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:

- Bazedoxifene**;
- Ospemifene**;
- 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 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-neutralizing antibodies (e.g. Domagrozumab,

landogrozumab, stamulumab).

**5.** Metabolic modulators:

- 5.1** Activators of the AMP-activated protein kinase (AMPK), e.g. AICAR, SR9009; and Peroxisome Proliferator Activated Receptor  $\delta$  (PPAR $\delta$ ) agonists, e.g. 2-[2-methyl-4-[(4-methyl-2-[4-(trifluoromethyl)phenyl]thiazol-5-yl)methylthio]phenoxy] acetic acid (GW1516, GW501516);
- 5.2** Insulins and insulin-mimetics;
- 5.3** Meldonium;
- 5.4** Trimetazidine.

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## S5 DIURETICS AND MASKING AGENTS

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 anaesthesia.

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.

**S4 荷爾蒙及代謝調節劑**

下列荷爾蒙及代謝調節劑禁用：

- 1 芳香環轉化酶抑制劑，包括但不僅限於下列：
  - 2-Androstenol (5 $\alpha$ -androst-2-en-17-ol);
  - 2-Androstenone (5 $\alpha$ -androst-2-en-17-one);
  - 3-Androstenol (5 $\alpha$ -androst-3-en-17-ol);
  - 3-Androstenone (5 $\alpha$ -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 選擇性雌激性素受體調節劑 (SERMs)，包括但不僅限於下列：
  - Bazedoxifene
  - Ospemifene
  - Raloxifene;
  - Tamoxifen;
  - Toremifene.
- 3 其他抗雌激性素物質，包括但不僅限於下列：
  - Clomiphene;
  - Cyclofenil;
  - Fulvestrant.
- 4 防活化素受體 IIB 活化劑，包括但不僅限於下列：
  - 活化素 A 中和抗體;
  - 活化素受體 IIB 的競爭物質如：活化素受體誘導物 (例如 ACE-031);
  - 抗活化素受體 IIB 抗體 (例如 bimagrumab);
  - 肌肉生長抑制素抑制劑如：減少或消除肌肉生長抑制素表現劑;
  - 肌肉生長抑制素結合蛋白 (例如 Follistatin 及 myostatin propeptide);

肌肉生長抑制素中和抗體 (例如 Domagrozumab、landogrozumab 及 stamulumab).

**5 代謝調節劑：**

- 5.1 腺苷單磷酸活化蛋白激酶 (AMPK) 活化劑，例如 AICAR、SR9009，及過氧化體增生劑活化受體 delta (PPAR $\delta$ ) 致效劑，例如 2-(2-methyl-4-((4-methyl-2-(4-(trifluoromethyl)phenyl)thiazol-5-yl)methylthio)phenoxy) acetic acid (GW1516, GW501516)
- 5.2 胰島素及胰島素類似物
- 5.3 Meldonium;
- 5.4 Trimetazidine.

**S5 利尿劑及干擾劑**

下列利尿劑、干擾劑及其他具有類似化學結構或相似生物作用之物質禁用：

包括但不僅限於下列：

- Desmopressin; 丙磺舒; 血漿擴張劑如：靜脈注射白蛋白, dextran, 羥乙基澱粉及甘露醇
- 乙醯偶氮胺; amiloride; bumetanide; canrenone; chlortalidone; etacrynic acid; 服樂泄麥; indapamide; metolazone; spironolactone; thiazides 如 Bendroflumethiazide, chlorothiazide 及 hydrochlorothiazide; triamterene 及 vaptans, 如 Tolvaptan.

下列不在禁用之列：

- Drospirenone; pamabrom; 眼部使用碳酸酐酶抑制劑 (如 Dorzolamide 和 brinzolamide)
- 牙科麻醉局部施用苯賴加壓素

運動員檢體在任何時候或賽內被驗出含有任何閾值限量內的下列禁用物質：

formoterol、salbutamol、cathine、ephedrine、methylephedrine、pseudoephedrine，與利尿劑或干擾劑併用時，除非選手已取得治療用途豁免核可使用該物質且已持有治療用途豁免 (TUE) 核可使用利尿劑或干擾劑，否則將被認定為不利檢測報告 (AAF)。

## PROHIBITED METHODS

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### 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) 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.

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### 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.

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### 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.

**禁用方法****M1 操控血液及血液成分**

禁用下列方法：

1. 將自體、同種異體 (同源) 或異體的血液，或任何來源紅血球製品，不論數量多寡，施打或再引入循環系統。
2. 以人為方式增加氧氣吸收、運輸或傳送氧氣。  
包括但不僅限於下列：  
全氟化合物、efaproxiral (RSR13)、改造之血紅素產品如：含血紅素之代用血液及微膠囊血紅素製劑，不包括吸入方式補充氧氣。
3. 在血管內以任何物理或化學的方法操控血液或血液成分。

**M2 化學及物理操作**

禁用下列方法：

1. 竊改或企圖竊改，以改變運動禁藥管制作業中採樣檢體之完整性與有效性。  
包括但不僅限於下列：  
調換檢體及/或變更檢體質性，例如：在檢體內摻入蛋白酶。
2. 靜脈輸注或注射12小時內注射量超過100毫升，惟因住院治療、手術過程或臨床診斷所需而注射者不在此限。

**M3 基因及細胞禁藥**

下列可提昇運動選手潛在成績者禁止使用：

1. 利用各種機轉使用核酸或核酸類似物來改變基因體序列和/或基因表現。這包括但不僅限於基因編輯、基因靜默、基因轉移技術。
2. 使用正常或基因改造細胞。

# SUBSTANCES & METHODS PROHIBITED *IN-COMPETITION*

IN ADDITION TO THE CLASSES S0 TO S5 AND M1 TO M3 DEFINED ABOVE, THE FOLLOWING CLASSES ARE PROHIBITED *IN-COMPETITION*:

## PROHIBITED SUBSTANCES

### S6 STIMULANTS

All stimulants, including all optical isomers, e.g. *d*- and *l*- where relevant, are prohibited.

Stimulants include:

#### a: Non-Specified Stimulants:

**A**drafinil;  
Amfepramone;  
Amfetamine;  
Amfetaminil;  
Amiphenazole;  
**B**enfluorex;  
Benzylpiperazine;  
Bromantan;  
**C**lobenzorex;  
Cocaine;  
Cropropamide;  
Crotetamide;  
**F**encamine;  
Fenetyliline;  
Fenfluramine;  
Fenproporex;  
Fonturacetam [4-phenylpiracetam (carphedon)];  
Furfenorex;  
**L**isdexamfetamine;  
**M**efenorex;  
Mephentermine;  
Mesocarb;  
Metamfetamine(*d*-);  
*p*-methylamfetamine;  
Modafinil;  
**N**orfenfluramine;  
**P**hendimetrazine;  
Phentermine;  
Prenylamine;  
Prolintane.

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

#### b: Specified Stimulants:

Including, but not limited to:

**3-M**ethylhexan-2-amine (1,2-dimethylpentylamine);  
**4-M**ethylhexan-2-amine (methylhexaneamine);  
4-Methylpentan-2-amine (1,3-dimethylbutylamine);  
**5-M**ethylhexan-2-amine (1,4-dimethylpentylamine);  
**B**enzfetamine;  
**C**athine\*\*;  
Cathinone and its analogues, e.g. mephedrone, methedrone, and  $\alpha$  - pyrrolidinovalerophenone;  
**D**imetamfetamine (dimethylamphetamine);  
**E**phedrine\*\*\*;  
Epinephrine\*\*\*\* (adrenaline);  
Etamivan;  
Etilamfetamine;  
Etilefrine;  
**F**amprofazone;  
Fenbutrazate;  
Fencamfamin;  
**H**eptaminol;  
Hydroxyamfetamine (parahydroxyamphetamine);  
**I**sometheptene;  
**L**evmetamfetamine;  
**M**eclofenoxate;  
Methylenedioxyamphetamine;  
Methylephedrine\*\*\*;  
Methylphenidate;  
**N**ikethamide;  
Norfenefrine;  
**O**ctodrine (1,5-dimethylhexylamine);  
Octopamine;  
Oxilofrine (methylsynephrine);  
**P**emoline;  
Pentetrazol;  
Phenethylamine and its derivatives;  
Phenmetrazine;  
Phenpromethamine;  
Propylhexedrine;  
Pseudoephedrine\*\*\*\*\*;

**賽內禁用物質與方法**

除前面規定 S0 至 S5 及 M1 至 M3 禁用物質及方法外，下列規定物質賽內禁止使用。

**禁用物質****S6 興奮劑**

所有興奮劑，包括所有相關光學異構體，例如右旋及左旋，均禁止使用。

興奮劑包括：

**a: 非特定興奮劑：**

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;  
Metamphetamine(d-);  
p-methylamphetamine;  
Modafinil;  
Norfenfluramine;  
Phendimetrazine;  
Phentermine;  
Prenylamine;  
Prolintane.

不在此列之興奮劑視為特定物質

**b: 特定興奮劑**

包括但不僅限於下列：

**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, 例如 mephedrone, methedrone, and  $\alpha$ -pyrrolidinovalerophenone;  
**Dimetamphetamine** (dimethylamphetamine);  
**Ephedrine\*\*\***;  
**Epinephrine\*\*\*\*** (腎上腺素);  
**Etamivan**;  
**Etilamphetamine**;  
**Etilefrine**;  
**Famprofazone**;  
**Fenbutrazate**;  
**Fencamfamin**;  
**Heptaminol**;  
**Hydroxyamphetamine** (parahydroxyamphetamine);  
**Isometheptene**;  
**Levmetamphetamine**;  
**Meclofenoxate**;  
**Methylenedioxymethamphetamine**;  
**Methylephedrine\*\*\***;  
**Methylphenidate**;  
**Nikethamide**;  
**Norfenefrine**;  
**Octodrine** (1,5-dimethylhexylamine);  
**Octopamine**;  
**Oxilofrine** (methylsynephrine);  
**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 dermatological, nasal or ophthalmic use and those stimulants included in the 2020 Monitoring Program\*.

\* Bupropion, caffeine, nicotine, phenylephrine, phenylpropanolamine, pipradrol, and synephrine: These substances are included in the 2020 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 anaesthetic agents.

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

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## S7 NARCOTICS

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.

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## S8 CANNABINOIDS

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

**Except:**

- Cannabidiol.

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## S9 GLUCOCORTICOIDS

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.

Selegiline;  
Sibutramine;  
Strychnine;  
Tenamfetamine  
(methylenedioxyamphetamine);  
Tuaminoheptane;

及其他有相似化學結構或生物作用之物質。

下列不在禁用之列：

- Clonidine
- 經皮膚、鼻腔、眼睛給予的imidazole衍生物，及2020年監控計畫\*所列興奮劑。

\* Bupropion, caffeine, nicotine, phenylephrine, phenylpropanolamine, pipradrol 及 synephrine：這些物質列入2020年監控計畫，不視為禁用物質。

\*\* 去甲假麻黃鹼：如尿液中濃度高於每毫升5微克，視為禁用物質。

\*\*\* 麻黃素及甲基麻黃素：如尿液中濃度高於每毫升10微克，視為禁用物質。

\*\*\*\* 腎上腺素：局部施用如鼻用、眼用，或腎上腺素與局部麻醉劑併用時，不在禁止之列。

\*\*\*\*\* 假麻黃鹼：如尿液中濃度高於每毫升 150 微克，視為禁用物質。

### S7 麻醉性止痛劑

下列麻醉性止痛劑，包括所有相關光學異構體，例如右旋及左旋，均禁止使用：

Buprenorphine;  
Dextromoramide;  
Diamorphine (heroin);  
Fentanyl 及其衍生物;  
Hydromorphone;  
Methadone;  
Morphine;  
Nicomorphine;  
Oxycodone;  
Oxymorphone;  
Pentazocine;  
Pethidine.

### S8 大麻鹼素

所有自然和合成的大麻鹼素均被禁止，例如：

- 大麻類植物中存在的物質，例如：hashish 及 marijuana
- 自然和合成大麻素，合成四氫大麻酚 (THC)
- 其他類大麻活性物質

下列不在禁用之列：

- 大麻二酚

### S9 腎上腺皮質素

所有腎上腺皮質素均禁止以口服、靜脈注射、肌肉注射或經直腸方式使用。

包括但不僅限於下列：

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



# SUBSTANCES PROHIBITED IN PARTICULAR SPORTS

## **P1** BETA-BLOCKERS

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:

**A**cebutolol;            **L**abetalol;  
**A**lprenolol;           **M**etipranolol;  
**A**tenolol;              **M**etoprolol;  
**B**etaxolol;             **N**adolol;  
**B**isoprolol;           **O**xprenolol;  
**B**unolol;               **P**indolol;  
**C**arteolol;             **P**ropranolol;  
**C**arvedilol;           **S**otalol;  
**C**eliprolol;           **T**imolol.  
**E**smolol;

## 特定運動種類禁用物質

### P1 乙型交感神經接受體阻斷劑

乙型交感神經接受體阻斷劑在下列運動種類賽內禁用；另有註明者，賽外亦禁用。

- 射箭 (WA)\*
- 汽車賽車 (FIA)
- 撞球 (包括所有項目) (WCBS)
- 飛鏢 (WDF)
- 高爾夫 (IGF)
- 射擊 (ISSF, IPC)\*
- 滑雪/滑板 (FIS) 之飛躍滑雪、自由式空中/半管滑雪，及半管/空中滑板等項目
- 水中運動(CMAS)之定重屏氣潛泳（不論是否有腳蹼）、動態屏氣潛泳（不論是否有腳蹼）、自由器泳、藍跳屏氣、獵魚、靜態屏氣潛泳、水中射擊，及各式負重屏氣潛泳

\*賽外亦禁用

包括但不僅止於下列物質：

Acebutolol;  
Alprenolol;  
Atenolol;  
Betaxolol;  
Bisoprolol;  
Bunolol;  
Carteolol;  
Carvedilol;  
Celiprolol;  
Esmolol;  
Labetalol;  
Metipranolol;  
Metoprolol;  
Nadolol;  
Oxprenolol;  
Pindolol;  
Propranolol;  
Sotalol;  
Timolol.

[www.wada-ama.org](http://www.wada-ama.org)

