

# Summary of Major Modifications and Explanatory Notes

## 2024 Prohibited List

Subclasses of sections S1, S2, S4, M1, M2, M3 and S6 of the *Prohibited List* were renumbered for better clarity throughout the document to avoid any misinterpretation of subclasses but there was no change in classification.

## SUBSTANCES AND METHODS PROHIBITED AT ALL TIMES (IN- AND OUT-OF-COMPETITION)

# PROHIBITED SUBSTANCES

### S0. Non-Approved Substances

- 2,4-Dinitrophenol (DNP) and troponin activators (e.g. Reldesemtiv and Tirasemtiv) were listed as examples.

### S1. Anabolic Agents

- Trestolone (7 $\alpha$ -methyl-19-nortestosterone, MENT), dimethandrolone (7 $\alpha$ ,11 $\beta$ -Dimethyl-19-nortestosterone) and 11 $\beta$ -methyl-19 nortestosterone were added as examples of nandrolone (19-nortestosterone) analogues.

### S2. Peptide Hormones, Growth Factors, Related Substances, and Mimetics

- S2.2.1 was reworded under the heading of “Testosterone-stimulating peptides in males” for clarity. This specifies that busarelin, deslorelin, goserelin, histrelin, leuprorelin, nafarelin and triptorelin are examples of Gonadotrophin-Releasing Hormone (GnRH) agonist analogues, with histrelin added as a new example.  
Kisspeptin and its agonist analogues, which act to stimulate GnRH secretion, and consequently testosterone, were also added.
- S2.2.2 : Tetracosactide (ACTH 1-24) was added as an example, as it is the first 24 amino acid portion of natural corticotrophin (ACTH), and possesses the full biological activity of the natural hormone.
- S2.2.4: Capromorelin and ibutamoren (MK-677) were added as examples of growth hormone secretagogues (GHS), which are mimetics of the natural hormone, ghrelin, that stimulates the production of growth hormone (GH) and, in turn, insulin-like growth factor 1 (IGF-1).
- S2.3: The INN name for recombinant human IGF-1, mecasermin, was added.

# 2024年運動禁藥清單 變動及說明重點摘要

## 2024 禁用清單

禁用物質S1、S2、S4、M1、M2、M3 和與S6 部分的子類別另予重新編號，俾利文件檔案更加清楚，避免誤解子類別，惟分類沒有變化。

## 隨時禁用物質與方法

### 禁用物質

#### S0. 未經核可之物質

- 2,4-Dinitrophenol (DNP) and troponin activators (e.g. Reldesemtiv and Tirasemtiv) were listed as examples.

#### S1. 同化性類固醇

- Trestolone (7 $\alpha$ -methyl-19-nortestosterone, MENT), dimethandrolone (7 $\alpha$ ,11 $\beta$ -Dimethyl-19-nortestosterone) and 11 $\beta$ -methyl-19 nortestosterone were added as examples of nandrolone (19-nortestosterone) analogues.

#### S2. 胜肽荷爾蒙、生長因子、其相關物質與相似物

- S2.2.1 為明確定義，於「男性睪固酮刺激胜肽」項進行異動。該項規定buserelin, deslorelin, goserelin, histrelin, leuprorelin, nafarelin and triptorelin為促性腺激素釋放激素 ( GnRH ) 拮抗劑類似物為例舉，亦新增histrelin作為例舉。

S2.2.2 : Tetracosactide (ACTH 1-24)為例示，因為它是天然促腎上腺皮質激素(ACTH)的前24

- 個胺基酸部分，並且具有天然激素的全部生物活性。

- S2.2.4: 新增Capromorelin和ibutamoren (MK-677) 為生長激素促分泌素(GHS) 之例示，該項係屬天然激素生長素分泌促進劑，可刺激生長激素(GH) 的產生，進而刺激胰島素的產生類生長因子 1 (IGF-1)。

S2.3: 新增了重組人類 IGF-1的國際非專有藥名(INN) 名稱 mecaseimerin。

## S4. Hormone and Metabolic Modulators

- S4.4.1 was updated to include Rev-Erb- $\alpha$  agonists and as example, SR9011 was added and SR9009 was relocated.

## S5. Diuretics and Masking Agents

- Editorial changes were made to section S5 to improve clarity. Conivaptan and mozavaptan were added as further examples of vaptan drugs.

## S4. 荷爾蒙與代謝調節劑

- 更新含新增 Rev-Erb- $\alpha$  拮抗劑例示，增列 SR9011 並對SR9009予重新定位。

## S5. 利尿劑及干擾劑

- 對 S5異動編排以提高明確性。另增 Conivaptan 和 mozavaptan 作為 vaptan 藥物例示。

# PROHIBITED METHODS

## M1. Manipulation of Blood and Blood Components

- Donation by *Athletes* of plasma or plasma components by plasmapheresis is no longer prohibited when performed in a registered collection center.

# PROHIBITED METHODS

## M1. 操弄血液及血液成分

- 不再禁止運動員於經註冊在案之捐血中心透過血漿置換術捐贈血漿或血漿成分。

## PROHIBITED SUBSTANCES

### S6. Stimulants

- 2-phenylpropan-1-amine (BMPEA,  $\beta$ -methylphenethylamine) was added as an example of a specified stimulant due to its presence in dietary supplements.
- Tramazoline was added as an imidazoline derivatives under Exceptions.

### S7. Narcotics

- Tramadol is prohibited *In-Competition* as of 1 January 2024 as approved by the Executive Committee on 23 September 2022. Tramadol has been on the WADA Monitoring Program for some years. Monitoring data has indicated significant *Use* in sports including cycling, rugby and football. Tramadol abuse, with its dose-dependent risks of physical dependence, opiate use disorder and overdoses in the general population, is of concern and has led to it being a controlled drug in many countries. Research studies funded by WADA<sup>1</sup> have confirmed the potential for tramadol to enhance physical performance in sports. The recommended washout period<sup>§</sup> will be communicated before 1 January 2024.

<sup>§</sup>The “washout period” refers to the time from the last administered dose to the time of the start of the *In-Competition* period (i.e. beginning at 11:59 p.m. on the day before a *Competition* in which the *Athlete* is scheduled to participate, unless a different period was approved by WADA for a given sport).

<sup>1</sup> a) Holgado D, Zandonai T, Zabala M, Hopker J, Perakakis P, Luque-Casado A, Ciria L, Guerra-Hernandez E, Sanabria D. Tramadol effects on physical performance and sustained attention during a 20-min indoor cycling time-trial: A randomised controlled trial. *J Sci Med Sport*. 2018 Jul;21(7):654-660.

b) Mauger L, Thomas T, Smith S, Fennell C. Tramadol is a performance-enhancing drug in highly trained cyclists: a randomized controlled trial.

*J Appl Physiol*. 2023 Jul;135: 467–474.

# 禁用物質

### S6. 興奮劑

- 由於膳食補充劑中存在某種特定的興奮劑，新增2-phenylpropan-1-amine (BMPEA,  $\beta$ -methylphenethylamine)作為例示，
- 增列Tramazoline 為imidazoline 衍生物之例外例示。

### S7. 麻醉止痛劑

- 經執行委員會於 2022 年 9 月 23 日批准，自 2024 年 1 月 1 日起禁止在賽內使用 Tramadol。多年來，Tramadol一直被列入 WADA 監控計畫。檢測數據顯示其在自行車、橄欖球和足球等運動中廣泛使用。Tramadol濫用及其劑量依賴性、類鴉片藥物成癮和一般人服用過量的風險令人擔憂，因此在許多國家成為管制藥物。由世界WADA 贊助研究證實Tramadol具有增強運動表現的潛力。建議之「消除期」將於 2024 年 1 月 1 日之前通知。
- § 「消除期」係指從最後一次給藥到賽中期開始的時間（即從運動員計劃參加的比賽前一天晚上 11:59 開始，除非WADA就特定運動核可不同之時點）。

<sup>1</sup> c) Holgado D, Zandonai T, Zabala M, Hopker J, Perakakis P, Luque-Casado A, Ciria L, Guerra-Hernandez E, Sanabria D. Tramadol effects on physical performance and sustained attention during a 20-min indoor cycling time-trial: A randomised controlled trial. J Sci Med Sport. 2018 Jul;21(7):654-660.

d) Mauger L, Thomas T, Smith S, Fennell C. Tramadol is a performance-enhancing drug in highly trained cyclists: a randomized controlled trial.

J Appl Physiol. 2023 Jul;135: 467-474.



## S9. Glucocorticoids

- The minimum washout periods following rectal administration of glucocorticoids are now included in the Glucocorticoid Washout Table; glucocorticoids remain prohibited *In-Competition* when administered by the rectal route. These washout periods are based on the use of these medications according to the maximum manufacturer’s licensed doses:

Route	Glucocorticoid	Washout period*
Oral**	All glucocorticoids;	3 days
	Except: triamcinolone; triamcinolone acetonide	10 days
Intramuscular	Betamethasone; dexamethasone; methylprednisolone	5 days
	Prednisolone; prednisone	10 days
	Triamcinolone acetonide	60 days
Local injections (including periarticular, intra-articular, peritendinous and intratendinous)	All glucocorticoids;	3 days
	Except: prednisolone; prednisone; triamcinolone acetonide; triamcinolone hexacetonide	10 days
Rectal	All glucocorticoids;	3 days
	Except: triamcinolone diacetate; triamcinolone acetonide	10 days

\*The “washout period” refers to the time from the last administered dose to the time of the start of the *In-Competition* period (i.e. beginning at 11:59 p.m. on the day before a *Competition* in which the *Athlete* is scheduled to participate, unless a different period was approved by WADA for a given sport). This is to allow elimination of the glucocorticoid to below the reporting level.

\*\* Oral routes also include e.g. oromucosal, buccal, gingival and sublingual.

- The Washout Period Table is also found in the List FAQ <https://www.wada-ama.org/en/prohibited-list#faq-anchor>

## S9. 糖皮質類固醇

- 以直腸施用糖皮質類固醇的最短「消除期」現已臚列於在糖皮質類固醇消除表中；糖皮質激素仍禁止賽內經由直腸途徑給藥。「消除期」係據製造商許可最大劑量訂定之：

Route	糖皮質類固醇	消除期*
口服**	所有糖皮質類固醇;	3 天
	除外: triamcinolone; triamcinolone acetonide	10 天
肌肉注射	Betamethasone; dexamethasone; methylprednisolone	5 天
	Prednisolone; prednisone	10 天
	Triamcinolone acetonide	60 天
局部注射 ( 包括關節周圍、關節內、肌腱和肌腱內 )	All glucocorticoids;	3 天
	Except: prednisolone; prednisone; triamcinolone acetonide; triamcinolone hexacetonide	10 天
直腸	All glucocorticoids;	3 天
	Except: triamcinolone diacetate; triamcinolone acetonide	10 天

- \* 「消除期」係指由最後一次給藥到賽內期開始時間 ( 即從前一天晚上 11:59 開始 ) 運動員計劃參加之比賽，除非WADA對特定運動核可不同的時點)。此為了糖皮質激素消除至低於報告閾值。

\*\*口服途徑亦包括口腔黏膜、頰、牙齦及舌下。

- 「消除期」表亦可由FAQ <https://www.wada-ama.org/en/prohibited-list#faq-anchor> 取得

# MONITORING PROGRAM

- Salmeterol and vilanterol were removed as the required prevalence data were obtained.
- Tramadol was removed as it is now prohibited under S7: Narcotics .
- Tapentadol and dihydrocodeine were added to monitor patterns of use *In Competition*.
- The GLP-1 analogue semaglutide was added to examine the prevalence and pattern of use in sport.

\* For further information on previous modifications and clarifications, please consult the *Prohibited List* Frequently Asked Questions at <https://www.wada-ama.org/en/prohibited-list#faq-anchor>.

# 監控計畫

- 於取得所需的盛行率資料後，已剔除Salmeterol及vilanterol
  - Tramadol 已列於 S7 麻醉性止痛劑項下，予以剔除
  - 新增Tapentadol、dihydrocodeine 以監測其於賽內使用之狀況
  - 新增GLP-1 analogue semaglutide以查察其於運動中之盛行率及使用模式
- \* 更詳盡之資料、修訂及其釋明可於運動禁藥禁用清單 FAQ  
<https://www.wada-ama.org/en/prohibited-list#faq-anchor> 取得