



## Changes to the 2018 FEI Equine Prohibited Substances List (EPSL)

SUBSTANCE NAME	CURRENT STATUS	EPSL CATEGORY	COMMENT
<b>ANABOLIC STEROIDS</b>			
<b>Anabolic Steroid Esters</b>	Not Listed	Banned Substance	Given the high number of anabolic steroid esters the following text will be added as a single entry to the EPSL 'Steroid esters of any anabolic steroids listed are also Banned Substances'
<b>1 - androsterone</b>	Not Listed	Banned Substance	Anabolic steroid identified to be a welfare risk to the horse and high potential for abuse
<b>3<math>\beta</math>-Hydroxy-5<math>\alpha</math>-androstan-17-one</b>	Not Listed	Banned Substance	Anabolic steroid identified to be a welfare risk to the horse and high potential for abuse
<b>4 - chlorometatandienone</b>	Not Listed	Banned Substance	Anabolic steroid identified to be a welfare risk to the horse and high potential for abuse
<b>5<math>\alpha</math>-Androst-2-ene-17-one</b>	Not Listed	Banned Substance	Anabolic steroid identified to be a welfare risk to the horse and high potential for abuse
<b>5<math>\alpha</math>-Androstane-3<math>\alpha</math>,17<math>\alpha</math>-diol</b>	Not Listed	Banned Substance	Anabolic steroid identified to be a welfare risk to the horse and high potential for abuse
<b>5<math>\alpha</math>-Androstane-3<math>\alpha</math>,17<math>\beta</math>-diol</b>	Not Listed	Banned Substance	Anabolic steroid identified to be a welfare risk to the horse and high potential for abuse
<b>5<math>\alpha</math>-Androstane-3<math>\beta</math>,17<math>\alpha</math>-diol</b>	Not Listed	Banned Substance	Anabolic steroid identified to be a welfare risk to the horse and high potential for abuse
<b>5<math>\alpha</math>-Androstane-3<math>\beta</math>,17<math>\beta</math>-diol</b>	Not Listed	Banned Substance	Anabolic steroid identified to be a welfare risk to the horse and high potential for abuse



<b>5<math>\beta</math>-Androstane-3<math>\alpha</math>,17<math>\beta</math>-diol</b>	Not Listed	Banned Substance	Anabolic steroid identified to be a welfare risk to the horse and high potential for abuse
<b>7<math>\alpha</math>-Hydroxy-DHEA</b>	Not Listed	Banned Substance	Anabolic steroid identified to be a welfare risk to the horse and high potential for abuse
<b>7<math>\beta</math>-Hydroxy-DHEA</b>	Not Listed	Banned Substance	Anabolic steroid identified to be a welfare risk to the horse and high potential for abuse
<b>7-Keto-DHEA</b>	Not Listed	Banned Substance	Anabolic steroid identified to be a welfare risk to the horse and high potential for abuse
<b>19-Norandrosterone</b>	Not Listed	Banned Substance	Anabolic steroid identified to be a welfare risk to the horse and high potential for abuse
<b>19-Noretiocholanolone</b>	Not Listed	Banned Substance	Anabolic steroid identified to be a welfare risk to the horse and high potential for abuse
<b>20-Hydroxyecdysone</b>	Not Listed	Banned Substance	Anabolic steroid identified to be a welfare risk to the horse and high potential for abuse
<b><math>\Delta</math>1-Testosterone</b>	Not Listed	Banned Substance	Anabolic steroid identified to be a welfare risk to the horse and high potential for abuse
<b>Androstanolone</b>	Not Listed	Banned Substance	Anabolic steroid identified to be a welfare risk to the horse and high potential for abuse
<b>Androsterone</b>	Not Listed	Banned Substance	Anabolic steroid identified to be a welfare risk to the horse and high potential for abuse
<b>Desoxyvinyl-testosterone</b>	Not Listed	Banned Substance	Anabolic steroid identified to be a welfare risk to the horse and high potential for abuse
<b>Epi-dihydrotestosterone</b>	Not Listed	Banned Substance	Anabolic steroid identified to be a welfare risk to the horse and high potential for abuse



<b>Epitestosterone</b>	Not Listed	Banned Substance	Anabolic steroid identified to be a welfare risk to the horse and high potential for abuse
<b>Etiocholanolone</b>	Not Listed	Banned Substance	Anabolic steroid identified to be a welfare risk to the horse and high potential for abuse
<b>Furazadrol</b>	Not Listed	Banned Substance	Anabolic steroid identified to be a welfare risk to the horse and high potential for abuse
<b>Halodrol</b>	Not Listed	Banned Substance	Anabolic steroid identified to be a welfare risk to the horse and high potential for abuse
<b>LGD-4033</b>	Not Listed	Banned Substance	Anabolic steroid identified to be a welfare risk to the horse and high potential for abuse
<b>Madol</b>	Not Listed	Banned Substance	Anabolic steroid identified to be a welfare risk to the horse and high potential for abuse
<b>Oxyguno</b>	Not Listed	Banned Substance	Anabolic steroid identified to be a welfare risk to the horse and high potential for abuse
<b>Prasterone</b>	Not Listed	Banned Substance	Anabolic steroid identified to be a welfare risk to the horse and high potential for abuse
<b>RAD140</b>	Not Listed	Banned Substance	Anabolic steroid identified to be a welfare risk to the horse and high potential for abuse
<b>SARM LGD-4033</b>	Not Listed	Banned Substance	Anabolic steroid identified to be a welfare risk to the horse and high potential for abuse
<b>SARM YK-11</b>	Not Listed	Banned Substance	Anabolic steroid identified to be a welfare risk to the horse and high potential for abuse
<b>SARM S-4</b>	Not Listed	Banned Substance	Anabolic steroid identified to be a welfare risk to the horse and high potential for abuse

<b>Trena</b>	Not Listed	Banned Substance	Anabolic steroid identified to be a welfare risk to the horse and high potential for abuse
<b>Trestolone</b>	Not Listed	Banned Substance	Anabolic steroid identified to be a welfare risk to the horse and high potential for abuse
<b>ANALGESICS</b>			
<b>Gabapentin</b>	Banned Substance	Controlled Medication	Increasingly used in veterinary practice to treat head and neck pain
<b>Palmitoylethanolamid</b>	Not Listed	Banned Substance	The substance has anti-inflammatory, analgesic and anti-depressant properties
<b>Paracetamol</b>	Banned Substance	Controlled Medication	Increasingly used as a routine analgesic in horses.
<b>Snake venom toxins</b>	Banned Substance	Banned Substance	The listing will be re-worded to 'Venom – naturally derived and synthetic'
<b>Venoms and their derivatives</b>	Banned Substance	Banned Substance	This listing will be removed as the prohibition of venoms will be already be covered by the new wording proposed for snake venom toxins
<b>ANTI-ARRYTHMICS</b>			
<b>Amiodarone</b>	Banned Substance	Controlled Medication	Used in veterinary practice to treat ventricular tachycardia and ventricular fibrillation
<b>Procainamide</b>	Banned Substance	Controlled Medication	Used in the initial treatment of horses with cardiac arrhythmia
<b>BETA BLOCKERS</b>			

<b>Propranolol</b>	Banned Substance	Controlled Medication	Substance is used widely in the treatment of cardiac disease
<b>BISPHOSPHONATES</b>			
<b>Alendronate</b>	Not Listed	Banned Substance	Use of the substance is considered a risk to equine welfare
<b>Ibandronate</b>	Not Listed	Banned Substance	Use of the substance is considered a risk to equine welfare
<b>Neridronate</b>	Not Listed	Banned Substance	Use of the substance is considered a risk to equine welfare
<b>Olpadronate</b>	Not Listed	Banned Substance	Use of the substance is considered a risk to equine welfare
<b>Pamidronate</b>	Not Listed	Banned Substance	Use of the substance is considered a risk to equine welfare
<b>Risedronate</b>	Not Listed	Banned Substance	Use of the substance is considered a risk to equine welfare
<b>Zoledronate</b>	Not Listed	Banned Substance	Use of the substance is considered a risk to equine welfare
<b>BRONCHODILATORS</b>			
<b>Aformoterol</b>	Banned Substance	Controlled Medication	Substance is used in horses and supported by research
<b>Fenoterol</b>	Banned Substance	Controlled Medication	Substance is used in horses and supported by research



<b>Formoterol</b>	Banned Substance	Controlled Medication	Substance is used in horses and supported by research
<b>Olodaterol</b>	Not Listed	Controlled Medication	Long-acting substance of therapeutic value, used in the treatment of respiratory disease in horses
<b>Pirbuterol</b>	Banned Substance	Controlled Medication	Substance is known to be used in horses and no welfare risks associated with their use have been identified
<b>Propentophylline</b>	Banned Substance	Controlled Medication	Substance is known to be used in horses and no welfare risks associated with their use have been identified
<b>Terbutaline</b>	Banned Substance	Controlled Medication	Substance is known to be used in horses and no welfare risks associated with their use have been identified
<b>Tiotropium</b>	Not Listed	Controlled Medication	Long-acting substance of therapeutic value, used in the treatment of respiratory disease in horses
<b>DIURETICS</b>			
<b>Azosemide</b>	Not Listed	Banned Substance	Loop diuretic with a high potential for abuse
<b>Eplerenone</b>	Not Listed	Banned Substance	Potassium-sparing diuretic with a high potential for abuse
<b>Trometamol</b>	Banned Substance	Controlled Medication	Substance is now available as a veterinary medicine for the treatment acidosis in horses
<b>HORMONES</b>			



<b>Erythropoietin (EPO) – or any synthetic analogues</b>	Banned Substance	Banned Substance	The listing will be and replaced by: 'Erythropoietin (EPO), recombinant EPO and synthetic analogues'
<b>HYPOXIA INDUCIBLE FACTOR (HIF) ACTIVATORS</b>			
<b>Argon</b>	Not Listed	Banned Substances	A Hypoxia Inducible Factor (HIF) activator with potential for abuse in conjunction with hypobaric chambers
<b>Krypton</b>	Not Listed	Banned Substances	A Hypoxia Inducible Factor (HIF) activator with potential for abuse in conjunction with hypobaric chambers
<b>Molidustat</b>	Not Listed	Banned Substances	A Hypoxia Inducible Factor (HIF) activator which increases endogenous production of erythropoietin
<b>Roxadustat</b>	Not Listed	Banned Substances	A Hypoxia Inducible Factor (HIF) activator which increases endogenous production of erythropoietin
<b>Xenon</b>	Not Listed	Banned Substances	A Hypoxia Inducible Factor (HIF) activator with potential for abuse in conjunction with hypobaric chambers
<b>OPIOIDS</b>			
<b>Meconine</b>	Banned Substance	Banned Substance and Specified Substance	The substance is naturally occurring and related to the poppy family. There is no legitimate use for its use in horses but has been identified as a potential contaminant.
<b>PARASYMPATHOMIMETICS</b>			

<b>Muscarine</b>	Banned Substance	Banned Substance and Specified Substance	The substance is naturally occurring, found in certain genera of mushrooms and identified as a potential contaminant
<b>PSYCHOACTIVES</b>			
<b>Cannabis (or synthetic cannabinoids)</b>	Banned Substance	Banned Substance	The current listing will be re-worded to: 'Natural cannabinoids, synthetic cannabinoids, and other cannabimimetics'
<b>PYROPHOSPHATES</b>			
<b>Myoinositol tripyrophosphate</b>	Not Listed	Banned Substance	The substance is performance-affecting and carries a high risk of abuse
<b>SEDATIVES</b>			
<b>Alpha-Casozepine</b>	Not Listed	Controlled Medication	Recent research has proved the substance has calming effects on horses
<b>Medetomidine</b>	Banned Substance	Controlled Medication	The substance is a sedative commonly used in small animal practice however its use in horses has been recently documented
<b>STIMULANTS</b>			
<b>Dopamine</b>	Banned Substance	Controlled Medication and Threshold Substance	Endogenous substance that is also used widely in equine anaesthesia. A threshold of 4 µg/ml in urine for 3-methoxytyramine (a metabolite of dopamine) will be set to identify use in competition without conflicting with endogenous dopamine
<b>Dopram</b>	Banned Substance	Controlled Medication	Used widely in veterinary practice during anaesthesia



<b>Synephrine</b>	Banned Substance	Banned Substance and Specified Substance	There is no legitimate use for its use in horses but has been identified as a naturally- occurring, potential contaminant
<b>VASOCONSTRICTORS</b>			
<b>Ergonovine</b>	Banned Substance	Banned Substance and Specified Substance	The substance is naturally occurring, produced by the rye ergot fungus and identified as a potential contaminant
<b>Ergotamine</b>	Banned Substance	Banned Substance and Specified Substance	The substance is naturally occurring, found in ergot fungi and identified as a potential contaminant
<b>VAPTANS</b>			
<b>Tolvaptan</b>	Not Listed	Banned Substance	The substance is considered a vaptan and used for the treatment of metabolic disease. A high risk of abuse has been identified with their use
<b>TRADE NAMES</b>			
<b>Amethocaine</b>	Banned Substance	Removed from the EPSL	Amethocaine is a trade name and will be removed from the EPSL. Tetracaine, the active substance, is already listed as a Controlled Medication



## **2019 Equine Prohibited Substances List BANNED METHODS**

- 1. Manipulation of Blood and Blood Components (i.e. Blood Doping, ozone haemotherapy)**
  - Withdrawal, manipulation and re-infusion of homologous, heterologous, or autologous, blood products or blood cells into the circulatory system with the exception of those performed for lifesaving purposes or the use of veterinary regenerative therapies for the treatment of musculoskeletal injury or disease.
  
- 2. Gene Doping**
  - Any form of genetic modification



## 2019 Threshold Substances List

<b>EQUINE PROHIBITED SUBSTANCES LIST CATEGORY</b>	<b>SUBSTANCE</b>	<b>THRESHOLD</b>
BANNED SUBSTANCE	Boldenone	0.015µg free and conjugated boldenone per millilitre in urine from male horses (other than geldings)
CONTROLLED MEDICATION	Carbon dioxide (CO <sub>2</sub> )	36 millimole per litre in plasma
CONTROLLED MEDICATION	Dimethyl Sulphoxide (DMSO)	15µg/ml in urine, or 1µg/ml in plasma
CONTROLLED MEDICATION	Dopamine	Dopamine is controlled via its metabolite 3-methoxytyramine. The threshold for 3-methoxytyramine is 4 µg/ml in urine
BANNED SUBSTANCE	Estranediol	Free and conjugated 5alpha-estrane3beta, 17alpha-diol, 0.045µg/ml in urine in male Horse (other than geldings)
CONTROLLED MEDICATION	Hydrocortisone	1µg/ml in urine
CONTROLLED MEDICATION	Salicylic acid	750µg/ml in urine, or 6.5µg/ml in plasma
BANNED SUBSTANCE	Testosterone	0.02µg free and conjugated testosterone per millilitre in urine from geldings, or 0.055µg microgram free and conjugated testosterone per millilitre in urine from fillies and mares (unless in foal)