



Weidepflanzen Doping bei Pferden

Viertes BfR-Forum

Verbraucherschutz

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Article 6.



10. The following are prohibited substances:

Substances capable at any time of acting on one or more of the following mammalian body systems:

the nervous system

the cardiovascular system

the respiratory system

the digestive system

the urinary system

the reproductive system

the musculoskeletal system

the blood system

the immune system except for licensed vaccines against infectious agents
the endocrine system

Endocrine secretions and their synthetic counterparts

Masking agents.



Article 6.

Thresholds

14. Thresholds can only be adopted for :
 - substances endogenous to the horse
 - substances arising from plants traditionally grazed or harvested as equine feed
 - substances in equine feed arising from contamination during cultivation, processing or treatment, storage or transportation.
15. Thresholds shall be recommended by the Federation's Advisory Council on Prohibited Substances, after consultation with official analysts and veterinarians of signatory countries, and approved by the Federation.



16. Prohibited substances below the following thresholds are not actionable:

<i>Threshold name</i>	<i>Threshold</i>
Arsenic	<ul style="list-style-type: none"> 0.3 microgram total arsenic per millilitre in urine
Boldenone	<ul style="list-style-type: none"> 0.015 microgram free and conjugated boldenone per millilitre in urine from male horses (other than geldings)
Carbon dioxide	<ul style="list-style-type: none"> 36 millimoles available carbon dioxide per litre in plasma
Dimethyl sulphoxide	<ul style="list-style-type: none"> 15 micrograms dimethyl sulphoxide per millilitre in urine, or 1 microgram dimethyl sulphoxide per millilitre in plasma
Estranediol in male horses (other than geldings)	<ul style="list-style-type: none"> the mass of free and conjugated 5α-estrane-3β,17α-diol to the mass of free and conjugated 5(10)-estrene-3β,17α-diol in urine from male horses (other than geldings) at a ratio of 1
Hydrocortisone	<ul style="list-style-type: none"> 1 microgram hydrocortisone per millilitre in urine
Methoxytyramine	<ul style="list-style-type: none"> 4 micrograms free and conjugated 3-methoxytyramine per millilitre in urine
Salicylic acid	<ul style="list-style-type: none"> 750 micrograms salicylic acid per millilitre in urine, or 6.5 micrograms salicylic acid per millilitre in plasma
Testosterone	<ul style="list-style-type: none"> 0.02 microgram free and conjugated testosterone per millilitre in urine from geldings, or 0.055 microgram free and conjugated testosterone per millilitre in urine from fillies and mares (unless in foal)
Theobromine	<ul style="list-style-type: none"> 2 micrograms theobromine per millilitre in urine.

N.B. : The conjugated substance is the substance that can be liberated from conjugates.



Annex III Equine Prohibited List
SUBSTANCES AND METHODS PROHIBITED IN-
COMPETITION
PROHIBITED SUBSTANCES (DOPING)

Agents, cocktails or mixtures of substances that may affect the performance of a horse; masking agents; substances with no generally accepted medical use in competition horses; substances which are usually products prescribed for use in humans or other species; agents used to hypersensitise or desensitise the limbs or body parts, including but not limited to:



Fortsetzung:

- two or more anti-inflammatory drugs (steroidal and/or non-steroidal) or other combinations of anti-inflammatory substances with similar or distinct pharmacological actions;
- antipsychotic, anti-epileptic and antihypertensive substances including reserpine, gabapentin, fluphenazine, and guanabenz;
- antidepressants such as selective serotonin reuptake inhibitors (SSRIs), monoamine oxidase inhibitors (MAOIs), and tricyclic antidepressants (TCAs);
- tranquilizers, sedatives (including sedating antihistaminics) commonly used in humans and/or non-equine species, including benzodiazepines, barbiturates and azaperone ;



Fortsetzung:

- narcotics and opioid analgesics; endorphins;
- amphetamines and other central nervous system (CNS) stimulants including cocaine and related psychotic drugs;
- beta-blockers including propranolol, atenolol, and timolol;
- diuretics and other masking agents;
- anabolic steroids (including testosterone in mares and geldings) and growth promoters;
- peptides and genetically recombinant substances such as erythropoietin, insulin growth factor and growth hormone;



Fortsetzung:

- hormonal products (natural or synthesized) including adrenocorticotrophic hormone (ACTH) and cortisol (above the threshold);
- substances designed and marketed primarily for human use or use in other species and for which alternative and generally accepted products are available for use in horses;
- hypersensitizing or sensitizing agents (organic or inorganic or other substances likely to have been applied to body parts or to tack to influence performance);
- oxygen carriers;

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



THRESHOLD SUBSTANCES

Horses may compete with the presence of certain substances in their tissues, body fluids or excreta for which threshold levels/ratios are listed below, provided the concentration of the substance is not greater than the threshold level/ratio indicated. Thresholds only apply to:

- substances endogenous to the horse;
- substances arising from plants traditionally grazed or harvested as equine feed; or
- substances in equine feed arising from contamination during normal cultivation, processing or treatment, storage or transportation.

The following constitutes an exclusive list of substances for which a threshold has been established. For each substance, a concentration level beneath that indicated is not an EADMC Rule violation:



Available carbon dioxide (CO₂)	36 millimoles per litre in plasma
Boldenone (other than geldings)	free and conjugated boldenone 0.015 micrograms per ml in urine from male horses
Dimethyl sulphoxide	15 micrograms per ml in urine or 1 microgram per ml in plasma
Estranediol in male Horses (other than Geldings)	Free and conjugated 5F- estrane-3G, 17F-diol 0.045 micrograms per ml in urine
Hydrocortisone	1 microgram per ml in urine
Salicylic acid	625 micrograms per ml in urine or 5.4 micrograms per ml in plasma
Testosterone	0.02 micrograms free and conjugated Testosterone per ml in urine from geldings, or 0.055 micrograms free and conjugated testosterone per ml in urine from fillies and mares (unless in foal).



§ 67 a Liste der verbotenen Substanzen:

1. Dopingsubstanzen

sind Substanzen, die geeignet sind, die Leistung eines Pferdes im Wettkampf zu beeinflussen.

Das sind:

- ⇒ Stimulantia
- ⇒ Sedativa und Narkotika
- ⇒ Anabolika
- ⇒ Diuretika
- ⇒ Peptidhormone und Analoge
- ⇒ zwei oder mehr Substanzen oder Kombinationen von Substanzen mit gleicher oder unterschiedlicher Wirkungsweise

Grenzwerte gelten für:

⇒ Testosteron:

*bei Wallachen: freies und konjugiertes Testosteron in einer Konzentration von 0,02 Mikrogramm pro Milliliter Urin

* bei Stuten: freies und konjugiertes Testosteron in einer Konzentration von 0,055 Mikrogramm pro Milliliter Urin

⇒ Estradiol:

Bei Hengsten: freies und konjugiertes 5α -estrane- 3β , 17α -diol: 0,045 pro Mikrogramm per Milliliter Urin

⇒ Boldenon:

Bei Hengsten: freies und konjugiertes Boldenon in einer Konzentration von 0,015 Mikrogramm pro Milliliter Urin

⇒ Theobromin: in einer Konzentration ab 2,0 Mikrogramm pro Milliliter Urin

⇒ Cortisol: in einer Konzentration ab 1,0 Mikrogramm pro Milliliter Urin

Außerdem gilt die Verabreichung von Vollblut und/oder Zubereitungen, die rote Blutkörperchen enthalten, sowie jede Manipulation einer Probe als Doping.



§ 67 a Liste der verbotenen Substanzen: (Fortsetzung)

2. Verbotene Substanzen

sind Substanzen, die, auch wenn sie als Arzneimittel eingesetzt werden, im Wettkampf verboten sind, und zwar solche, die

- ⇒ auf das Nerven-System
- ⇒ auf das Herz-Kreislauf-System
- ⇒ auf das Atmungs-System
- ⇒ auf das Verdauungs-System
- ⇒ auf das Harn-System
- ⇒ auf die Geschlechtsorgane
- ⇒ auf das Muskel- und Skelett-System
- ⇒ auf die Haut
- ⇒ gegen Infektionserreger wirken.

Grenzwerte gelten für:

- ⇒ Salizylsäure:

in einer Konzentration ab 625,0 Mikrogramm pro Milliliter Urin oder 5,4 Mikrogramm pro Milliliter Blutplasma

- ⇒ Arsen: in einer Konzentration ab 0,3 Mikrogramm pro Milliliter Urin
- ⇒ Dimethylsulfoxyd (DMSO):

in einer Konzentration ab 15,0 Mikrogramm pro Milliliter Urin oder in einer Konzentration ab 1,0 Mikrogramm pro Milliliter Blutplasma

- ⇒ Verfügbares CO₂: in einer Konzentration ab 36 Millimol pro Liter Blutplasma.



§ 67 a Liste der verbotenen Substanzen: (Fortsetzung)

3. Ausnahmen

Die Anwendung/Verabreichung folgender in Deutschland bei Pferden zugelassenen Substanzen in zeitlichem Zusammenhang mit der Wettkampfteilnahme ist erlaubt, da sie der Vorbeugung und Pflege dienen und unterstützend bei der Gesunderhaltung des Pferdes wirken:

- ⇒ Impfstoffe gemäß Durchführungsbestimmungen zu § 66.6.10.
- ⇒ Substanzen zur Bekämpfung von Endoparasiten
- ⇒ Paramunitäts-Inducer
- ⇒ externe Desinfektionsmittel und Insektenschutzmittel.

(LPO 2008 / Stand: 28.März 2007)



Prohibited substances detected in FEI competitions from 1999 - 2004

Acepromazine

Caffeine

Ampyrone

Celecoxib

Atenolol

Chlorpheniramine

Azaperone

Chlorprothixide

Betamethasone

Cimetidine

Boldenone

Clanobutin

Bufotenine

Clenbuterol

Butorphanol

Dembrexine



Fortsetzung:

Desmethylpyrilamine

Dexamethasone

Dextrorphan

Diclofenac

Diphenhydramine

Dipyrrone (metamizole)

Eltenac

Felbinac

Flufenamic acid

Flunixin

Fluphenazine

Furosemide

Guanabenz

Heptaminol

Hyoscine

Ibuprofen



Fortsetzung:

Indomethacin

Isoxsuprine

Ketoprofen

Lidocaine

Meclofenamic acid

Meloxicam

Methocarbamol

Methylaminoantipyrine

Methylprednisolone

Nandrolone

Naproxen

Nordiazepam

Phenylbutazone

Phenylpropanolamine

Procaine

Pyrilamine



Fortsetzung:

Ramifenazone

Ranitidine

Reserpine

Rofecoxib

Romifidine

Salicylic acid

Testosterone

Theobromine

Theophylline

Tolmetin

Tramadol

Triamcinolone

Tripelenamine

Valerenic acid

Vedaprofen

Zuclopenthixol



THEOBROMIN

KOFFEIN

THEOPHYLLIN

SALIZYLAT

DMSO

ARSEN

HORDENIN



MORPHIN

LUPANIN

BUFOTENIN

BENZOYLECGONINE