



Athlete Guide to the 2010 Prohibited List

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The World Anti-Doping Agency provides annual updates to the Prohibited List. This guide is designed to help U.S. athletes understand how the Prohibited List affects them with specific attention paid to medications available on the U.S. market. Here athletes will find information on each section of the Prohibited List, and a discussion of important changes for 2010. This guide is not intended to provide an exhaustive discussion of the 2010 Prohibited List, rather it is only intended to make athletes aware of commonly used substances so they may determine their use or non-use, the need to apply for a Therapeutic Use Exemption, or the need to submit a Declaration of Use. This document should be read in conjunction with the 2010 Prohibited List, which can be downloaded from www.USADA.org or www.wada-ama.org.

Substances and Methods Prohibited at all times (both in- and out-of-competition).

The first section of the prohibited list discusses substances and methods that are prohibited at all times, both in- and out-of-competition. An athlete can be tested for these substances at any time, and may receive an anti-doping rule violation for the use of these substances. Athletes who have a legitimate medical need to use a prohibited substance may submit an application for a Therapeutic Use Exemption (TUE). If an athlete tests positive for a prohibited substance but has a valid TUE, they will not incur an anti-doping rule violation¹.

S1. Anabolic Agents

Anabolic Agents are prohibited. This includes the external application or any administration of anabolic agents. The list of anabolic agents is extensive, but even if an anabolic agent is not specifically listed it is still prohibited if it has “a similar chemical structure or similar biological effect(s)”.

Advisory:

1. Clenbuterol is sometimes used to treat asthma, and is commonly prescribed in other countries. It may also be found in some dietary supplements, and may be publicized as a weight loss drug. Clenbuterol is classified as an anabolic agent.
2. There have been instances of dietary supplements contaminated with Anabolic Agents.



S2. Peptide Hormones, Growth Factors and related Substances

This class of substances includes EPO, CERA, chorionic gonadotropin, luteinizing hormone (in males), insulin, corticotrophins, and a number of growth factors. There are several important changes to this section in the 2010 Prohibited List.

Advisory:

1. The definition of growth factors has been clarified and many examples are specifically listed under S2.5, including any “growth factor affecting muscle, tendon, or ligament protein synthesis/degradation, vascularization, energy utilization, regenerative capacity or fiber type switching.”
2. Platelet derived preparations, including platelet rich plasma (sometimes called blood spinning or PRP), administered intramuscularly are prohibited under section S2.6. Platelet-derived preparations administered by other routes (for example, injection around a tendon or ligament, or into a joint) require only a Declaration of Use. This process is described on the USADA website www.USADA.org.
3. Athletes with insulin-dependent diabetes need to be aware that insulin is prohibited under the class of Peptide Hormones. An athlete must apply for a Therapeutic Use Exemption to use insulin.

S3. Beta-2 Agonists

All beta-2 agonists are prohibited by all routes of administration except for the use of salbutamol (albuterol in the USA; 1600µg in 24 hours) and salmeterol by inhalation. Use of these two substances by inhalation requires only a Declaration of Use. All other beta-2 agonists require a Therapeutic Use Exemption prior to use in accordance with USADA TUE and Declaration of Use policy available on www.USADA.org. Consult the table below to determine if the use of a specific inhaler requires a TUE or a Declaration of Use. If an inhaler cannot be found on the table, the medication can be searched for on Global DRO (linked to www.USADA.org) or call the Drug Reference Phone Line on (800) 233 0393.

Advisory:

1. Albuterol requires only a Declaration of Use for dosages at or under 1600µg in 24 hours. This may translate into a wide range of “puffs” that an Athlete can take from an inhaler depending on the dosage strength. Consider the following hypothetical situation: An Athlete’s physician prescribes “two puffs” of an albuterol inhaler, each puff delivering approximately 100µg of albuterol. Thus, each “use” of the inhaler in this example would deliver approximately 200µg, which would mean an athlete could use this inhaler eight



times in a 24-hour period and be compliant with the 2010 Prohibited List. The strength of the inhaler may be higher or lower than this. Athletes should examine their inhalers and determine its dosage. If it is needed to take more than 1600µg in 24 hours, a TUE must be obtained. For any questions or concerns call the Drug Reference Line at (800)-233-0393.

Some commonly used inhalers containing Beta-2 Agonists¹			
Substance	Salbutamol (Albuterol in the USA)	Salmeterol	Other beta-2 agonists (formoterol, terbutaline, etc).
Status	Requires Declaration of Use ² on USADA's website and on the Doping Control Official Record at the time of testing.	Requires Declaration of Use on USADA's website, and on the Doping Control Official Record at the time of testing.	Requires a Therapeutic Use Exemption (TUE)
Commonly used brands containing this substance	AccuNeb Aerolin DuoNeb ProAir Proventil Ventolin Xopenex (and HFA)	Advair (and HFA) Serevent	Alupent Atock Atimos Modulite Brethaire Bricanyl Brovana Foradil Oxeze Performist Symbicort

2. Oral use of beta-2 agonists is prohibited, even with a TUE for an inhaled beta-2 agonist, or a submitted Declaration of Use for an inhaler containing albuterol or salmeterol. Oral beta-2 agonists are often used for severe cases of asthma. If an athlete's doctor prescribes an oral beta-2 agonist the athlete must submit an application for a TUE.

¹ This list is NOT exhaustive, and is supplied for general information only. The athlete is responsible for being aware of the status of all of his or her medications.

² A Declaration of Use should be filed for dosages under 1600 micrograms over 24 hours. Higher dosages require a TUE. Athletes should be aware of the dosage of albuterol they are using, and use the inhaler only as prescribed. Repeated inhalation of albuterol over a short period of time may result in urinary concentrations in excess of 1000ng/mL even though the athlete did not exceed 1600 micrograms in 24 hours. According to the Prohibited List this is presumed to not be a therapeutic use of albuterol and may result in an anti-doping rule violation.



3. There are a large number of inhalers available on the U.S. market, and athletes need to be aware of which substances are in which inhaler. Consult the table above to determine if which medication requires a TUE, or a Declaration of Use. If an inhaler does not appear in this table, consult the Drug Reference Line for help at (800)-233-0393, or search for medication on Global DRO (found on the USADA website www.USADA.org).
4. Some inhalers have more than one active ingredient. If an inhaler contains formoterol AND salmeterol, both a TUE (for the formoterol) and a Declaration of Use (for the salmeterol) are needed.
5. The presence of salbutamol in urine in excess of 1000ng/mL is presumed NOT to be an intended therapeutic use, and may be considered as an adverse analytical finding.
5. Athletes with existing Therapeutic Use Exemptions for albuterol and salmeterol should have already submitted a Website Declaration of Use for these substances according to the 2009 Prohibited List. Athletes must ensure that a Declaration of Use is still valid by updating the Declaration in the Athlete Express area of USADA's website www.USADA.org. Previously approved TUEs will remain valid until the expiration date of the TUE.

S4. Hormone Antagonists and Modulators

There are no major changes to this Subclass of prohibited substances compared to the 2009 Prohibited List. In short, the following are prohibited: Aromatase inhibitors, selective estrogen receptor modulators (SERMS) such as tamoxifen, other estrogenic substances, and agents modifying myostatin function(s). Please consult the 2010 Prohibited List for examples of substances in each of the above classes.

S5. Diuretics and Other Masking Agents

Masking agents are prohibited, including diuretics and plasma expanders.

Advisory:

1. Glycerol has been added as an example of a plasma expander. The intent is to control glycerol when used for infusions or at amounts sufficient to act as a plasma expander.
2. Use of Glycerol supplements is prohibited.



Prohibited Methods

M1. Enhancement of Oxygen Transfer

Blood doping, the use of red blood cells of any origin, or otherwise artificially enhancing the uptake or delivery of oxygen remains prohibited.

Advisory:

1. WADA has clarified that supplemental oxygen is not considered prohibited according to the 2010 Prohibited List.

M2. Chemical and Physical Manipulation

Tampering, or attempting to tamper in order to affect the validity of samples collected during the doping control process is prohibited.

Intravenous infusions are prohibited except for those legitimately received in the course of hospital admissions or clinical investigations.

Advisory:

1. Even if the substance to be delivered by intravenous infusion is not prohibited (such as saline), the method remains prohibited outside of the scope of allowable use (hospital admissions/clinical investigations).

M3. Gene Doping

The transfer of cells or genetic elements, or the use of agents that alter gene expression is prohibited. Consult the WADA Prohibited List 2010 for details and examples.

Substances and Methods Prohibited In-Competition

This section focuses on substances that are prohibited only in-competition. These substances are not prohibited when athletes are not competing, and these substances are not tested for in the out-of-competition menu (please note the exceptions to this rule below in the advisory). It is very important that to be aware of the definition of “in-competition.” Each International Federation may have a different definition of “in-competition” and it may vary by event. For some events, “in-competition” may be defined as “12 hours before the start of the competition” and different rules may apply to multi-day events (for example, the Olympic Games). It is very



important for athletes to understand the definition of “in-competition” for the sporting events in which they compete. Athletes must ensure that all substances prohibited in-competition have completely cleared from their body before competition. If this is not possible, or if the chronic use one or more of these medications is needed, the athlete should apply for a Therapeutic Use Exemption or Declaration of Use as appropriate.

S6. Stimulants

All stimulants are prohibited except for imidazole derivatives for topical use, and those stimulants on the 2010 Monitoring Program³. Some of the more common, well-known stimulants in this category include amphetamine, methamphetamine, levmetamphetamine, pseudoephedrine, cocaine, and modafinil. For a detailed listing of stimulants, consult the 2010 Prohibited List.

Advisory:

1. Athletes diagnosed with Attention Deficit Disorder (ADD) or Attention Deficit Hyperactivity Disorder (ADHD), and who are on stimulants for medical management of this condition *and who are competing*, must obtain a Therapeutic Use Exemption to use this medication. Common medications that contain amphetamines are Adderall, Concerta, Focalin, Ritalin, and Vyvanse. Athletes who are not competing do not need to obtain a TUE in order to use these medications.
2. Athletes diagnosed with narcolepsy, and prescribed medications that contain modafinil or armodafinil, for example, will need to obtain a TUE if they need to continue taking these types of medications prior to or during competition.
3. Pseudoephedrine is an ingredient in several over-the-counter cold and flu medications. WADA has issued an advisory to athletes that they should discontinue taking medications containing pseudoephedrine AT LEAST 24 hours prior to the time defined as “in-competition.” However, in some cases this may not be enough time for the substance to clear from the body. Athletes who intend on competing in the near future, or who are currently in-competition should examine the ingredient list of any medication they are using to ensure it does NOT contain pseudoephedrine.
4. Caffeine is not prohibited. It is part of the 2010 Monitoring Program by WADA (see footnote 3).

³ For details on the monitoring program, consult the World Anti-Doping Agency website, and the 2010 Prohibited List. In short, the following are not prohibited bupropion, caffeine, phenylephrine, phenylpropanolamine, piperidol, synephrine.



5. Athletes on stimulants as a management strategy for a medical condition (such as attention deficit disorder) should consider applying for a Therapeutic Use Exemption because it can be difficult, and often not in the best (medical) interest of the athlete to discontinue and restart medications in order to compete.

S7. Narcotics

Certain narcotics are prohibited in-competition: Buprenorphine, dextromoramide, diamorphine (heroin), fentanyl and its derivatives, hydromorphone, methadone, morphine, oxycodone, oxymorphone, pentazocine, pethidine (meperidine).

Use of these narcotics in-competition requires an approved TUE.

S8. Cannabinoids

Natural or synthetic Δ^9 -tetrahydrocannabinol (THC) and THC-like cannabinoids (e.g. hashish, marijuana, HU-210) are prohibited.

Advisory:

1. Athletes should be aware that cannabinoids may be retained in fat tissue following chronic use and may be detected weeks after use. There have been situations where sudden weight loss has caused cannabinoid metabolites stored in fat to be released in detectable levels. USADA strongly advises athletes not to use cannabinoids at any time.

S9. Glucocorticosteroids

The status of glucocorticosteroids on the Prohibited List depends on the route of administration.

- Systemic glucocorticosteroids are prohibited in-competition. This includes intramuscular, intravenous, oral and rectal routes.
- Use of glucocorticosteroids administered by intra-articular (in a joint), periarticular (around a joint), peritendinous (around a tendon), epidural (in the spinal cord), intradermal (in the skin) and by inhalation is permitted in-competition and requires a Website Declaration of Use and a Declaration of Use on the Doping Control Official Record at the time of testing.
- Topical use of glucocorticosteroids is not prohibited.



Advisory:

1. Athletes who are prescribed oral glucocorticosteroids (Medrol Dose Pack for instance) may take these medications without a TUE as long as the prohibited substance has cleared their system prior to the time defined as “in-competition.” If athletes need to use glucocorticosteroids by oral, intramuscular, or rectal routes shortly before, or during competition they must obtain a TUE.
2. Injection of glucocorticosteroids around tendons, into joints, and epidural (into the spine) requires a Declaration of Use.
3. Inhalation of glucocorticosteroids (such as in the treatment of asthma) requires a Declaration of Use.
4. Topical use of glucocorticosteroids (anti-rash cream, hemorrhoidal creams etc.) is not prohibited and does not require a Declaration of Use or a TUE.
5. Many physicians may refer to intramuscular injection of glucocorticosteroids as a “local” injection into muscle. According to the Prohibited List, this use is considered systemic.

USADA References and Resources

This guide was intended to introduce athletes, and others involved in sport, to the Prohibited List and to provide practical guidance on how the Prohibited List may affect them. This guide is not intended to be exhaustive, and should be read in conjunction with the Prohibited List. Ultimately, the athlete is solely responsible for the substances in his or her body. Further information on the topics contained in this guide can be obtained by consulting the references and resources below.

- The **2010 Prohibited List** can be downloaded from www.USADA.org or www.wada-ama.org.
- Athletes can call USADA’s **Drug Reference Line** (800) 233-0393 for questions on medications, substances, methods, and clarification on the Prohibited List.
- **Global DRO** (www.globaldro.com) linked to USADA’s website (www.USADA.org) is a searchable online database of medications available in the United States, Canada, and the United Kingdom explaining whether or not these medications contain prohibited substances.
- You may contact USADA’s **Drug Reference Department** on 719-785-2045 for questions on Therapeutic Use Exemptions, or submitting a Declaration of Use.
- **USADA does not provide medical advice or recommendations. Athletes should make all decisions on treatment with their physician in conjunction with the 2010 Prohibited List.**