



# BULL'S EYE THE ISSF IPOD ON DOPING

## FOCUS ON THE WADA PROHIBITED LIST

**PAST EDITIONS OF THE IPOD HAVE UNDERLINED THE IMPORTANCE FOR SHOOTERS OF AVOIDING THE USE OF BETA BLOCKERS. AS ALL READERS SHOULD NOW BE WELL AWARE, BETA BLOCKERS ARE PROHIBITED SUBSTANCES UNDER THE WADA PROHIBITED LIST IN SHOOTING-SPORT. ANY TRACE OF BETA BLOCKERS FOUND IN A SHOOTER'S SAMPLE WILL LEAD TO AN ANTI-DOPING RULE VIOLATION AND MAY RESULT IN A 2 YEAR SUSPENSION.**

**BUT, THERE ARE MANY OTHER CATEGORIES OF SUBSTANCES INCLUDED ON THE WADA PROHIBITED LIST THAT ALL SHOOTERS MUST NOT USE.**

**SHOOTERS, COACHES AND ATHLETE SUPPORT PERSONNEL SHOULD BE AWARE OF THE CLASSES OF SUBSTANCES THAT ARE ON THE PROHIBITED LIST, AND SHOULD BE CAREFUL TO CHECK THE STATUS OF ANY MEDICATION SHOOTERS MAY CONSUME TO ENSURE THAT IT WILL NOT RESULT IN AN ANTI-DOPING RULE VIOLATION.**

### **WHAT IS THE PROHIBITED LIST?**

The Prohibited List (the List) was first published in 1963 under the leadership of the International Olympic Committee. Since 2004, as mandated by the World Anti-Doping Code (Code), WADA is responsible for the preparation and publication of the List. The List is a cornerstone of the Code and a key component of harmonization. It is an International Standard identifying substances and methods prohibited in-competition, out-of-competition and in particular sports.

Substances and methods are classified by categories (e.g., steroids, stimulants, gene doping). Of course, the use of any prohibited substance by an athlete for medical reasons is possible by virtue of a Therapeutic Use Exemption (TUE).

### **WHO DECIDES WHAT SUBSTANCES ARE ON THE LIST?**

The World Anti-Doping Agency (WADA) has been responsible for the preparation and publication of the List, which it updates every year effective January 1.

Guidelines for the annual review and consequent publication of the List are outlined in the Code. WADA's role is one of facilitator of the consultation process.

The agreed process for the annual consideration of the List includes three meetings of WADA's List Expert Group with a draft discussion List being published and circulated for consultation in June, following the second meeting. At its third meeting in September, the List Expert Group, following consideration of the submissions received from the consultation process, recommends the new List to the Health, Medical and Research Committee which in turn makes recommendations to WADA's Executive Committee.

The Executive Committee finalizes the List at its September meeting.

The updated List is published by October 1 and, as already mentioned, the revised Prohibited List comes into effect on January 1 the following year.

### **WHAT SUBSTANCES ARE ON THE LIST?**

Banned substances are placed into categories based on their effect or application (e.g., steroids (anabolic agents), stimulants, gene doping) and can be prohibited in-competition, out-of-competition, or in particular sports.

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

#### **ANABOLIC AGENTS (S1)**

This class of substances includes anabolic androgenic steroids such as nandrolone, testosterone and androstenedione. It also includes other anabolic agents such as clenbuterol and SARMs.

#### **PEPTIDE HORMONES, GROWTH FACTORS AND RELATED SUBSTANCES (S2)**

This class includes substances like EPO and human growth hormone. It also includes insulin, which is commonly used by diabetics and requires a TUE.

→ New in 2010: Addition of CERA, clarification of PRP and various growth factors.

#### **BETA-2 AGONISTS (S3)**

Beta-2 agonists, which are commonly prescribed for the treatment of asthma, are all prohibited in sport. Four specific inhaled beta-2 agonists (formoterol, salbutamol, salmeterol and terbutaline) require a TUE.



→ *New in 2010: Salbutamol and salmeterol are no longer prohibited when administered by inhalation only.*

#### **HORMONE ANTAGONISTS AND MODULATORS (S4)**

These drugs interfere with the function of estrogens or female hormones and are often used in the treatment of cancer. Examples in this class include tamoxifen and clomiphene.

→ *New in 2010: Addition of androstatrienedione, a common ingredient in supplements.*

#### **DIURETICS AND MASKING AGENTS (S5)**

Masking agents are prohibited, including probenecid and plasma expanders. Prohibited diuretics include hydrochlorothiazide, triamterene, but not drosperinone or topical dorzolamide.

→ *New in 2010: Clarification of the status of glycerol and pamabrom.*

## **SUBSTANCES PROHIBITED IN-COMPETITION**

#### **STIMULANTS (S6)**

All stimulants are prohibited, and grouped into specified and non-specified. A few non-prohibited stimulants such as caffeine are included in the monitoring program.

→ *New in 2010: Addition of pseudoephedrine, benfluorex, prenylamine, and methylhexaneamine.*

#### **NARCOTICS (S7)**

Only certain narcotics are prohibited such as fentanyl, morphine, and oxycodone.

#### **CANNABINOIDS (S8)**

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

#### **GLUCOCORTICOSTEROIDS (S9)**

All glucocorticosteroids are prohibited when administered by oral, intravenous, intramuscular or rectal routes.

## **SUBSTANCES PROHIBITED IN PARTICULAR SPORTS**

#### **ALCOHOL (P1)**

Alcohol (ethanol) is prohibited in-competition only, in certain sports including archery, boules, karate, modern pentathlon

and bowling. The doping violation threshold is 0.10

#### **BETA-BLOCKERS (P2)**

Beta-blockers are prohibited in-competition only, in shooting sport and in other specific sports such as archery, bobsleigh, curling and golf.

## **WHAT ARE SOME OF THE EFFECTS OF TAKING THESE PROHIBITED SUBSTANCES?**

Aside from resulting in anti-doping rule violation, there are many negative side effects to using prohibited substances.

Surely, if fairness and athletic spirit are not enough to deter all shooters from using prohibited substances, the following side effects should provide serious motivation to avoid the use of drugs altogether.

#### **STEROIDS:**

They may make muscles big and strong, but those who use steroids have been known to develop a dependency to them. They may also:

- Result in acne and baldness
- increase risk of cardiovascular disease
- Results in mood swings and aggressiveness
- Make you suicidal

→ *For men, steroids may also result in shrinking testicles, breast growth, impotence, reduced sex drive and decrease in sperm production.*

#### **EPO:**

Using EPO may make your blood more like honey than water. Trying to pump this thick blood through your veins may make you feel weak, give you high blood pressure, induce heart attacks or strokes.

→ *EPO may help with the way your body uses oxygen, but quite simply, it may lead to death.*

#### **STIMULANTS:**

Using stimulants may result in:

- Insomnia, problems with coordination and balance, and produce involuntary shaking and trembling.
- Anxiousness or aggressiveness.
- The development of an irregular heart rate that can result in a heart attack or stroke.

→ *Needless to say, the use of stimulants will NOT be of help to any athletes competing in shooting-sport*

#### **HGH:**

Human growth hormone may make muscles and bones bigger, stronger and recover faster, but, using HGH may lead to:

- Acromegaly – protruding forehead, brow, skull and jaw, all which cannot be reversed.
- An enlarged heart, which can result in high blood pressure and heart failure.
- Damage to liver, thyroid, and vision.
- Crippling arthritis.

#### **MARIJUANA:**

It may be viewed as a social drug, but cannabis, pot or any of its other names is banned. Using marijuana can:

- Have a negative effect on athletic performance.
- Reduce memory, attention and motivation.
- Weaken the immune system and lungs.
- Lead to psychological and physical dependence.

#### **DIURETICS/MASKING AGENTS:**

Some athletes try to cheat the system by using diuretics to cover up the signs of the use of other banned substances. But, the side effects of using diuretics can result in:

- Dizziness and fainting.
- Dehydration and muscle cramps.
- Drop in blood pressure and loss of coordination and balance.
- Confusion and moodiness.
- The development of cardiac disorders.

→ *Some athletes use diuretics to lose weight or as hair replacement treatment, but using these substances without a TUE will result in an inadvertent anti-doping rule violation.*

#### **NARCOTICS:**

Narcotics, like heroin and morphine may help ease and numb pain, but use of narcotics results in:

- A weakened immune system.
- Decreased heart rate and suppressed respiratory system.
- Loss in balance, coordination and concentration.
- Gastrointestinal problems like vomiting and constipation.

→ *Narcotics are highly addictive, the body and mind quickly become dependant on them and this can affect every part of an athlete's daily life.*

#### **WHAT DOES THE LIST MEAN BY "METHODS" AND WHICH OF THESE METHODS ARE ON THE LIST?**

The word "Methods" refers to different medical techniques for using prohibited substances. It also refers to different actions and means utilized by athletes and coaches to try to cheat.

## THE PROHIBITED LIST CONTAINS THREE CLASSES OF METHODS THAT ARE BANNED IN SPORT, BOTH IN- AND OUT-OF-COMPETITION

### ENHANCEMENT OF OXYGEN TRANSFER (M1)

This category includes blood doping, including the use of blood or red blood cell products of any origin. It also includes artificially enhancing the uptake, transport or delivery of oxygen.

→ New in 2010: Supplemental oxygen is no longer prohibited.

### CHEMICAL AND PHYSICAL MANIPULATION (M2)

Tampering, or attempting to tamper, in order to alter the integrity and validity of samples collected during doping controls is prohibited. This includes but is not limited to catheterization for the purpose of adulterating a sample, urine substitution and/or alteration.

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

### GENE DOPING (M3)

The transfer of cells or genetic elements or the use of cells, genetic elements or pharmaceutical agents to modulate the expression of endogenous genes having the capacity to enhance athletic performance, is prohibited.

## WHAT ABOUT SUPPLEMENTS?

There have been many anti-doping violations caused by supplement use. The ISSF is again drawing attention to the extreme risk an athlete takes when using supplements.

While it is easy to assume that an inadvertent anti-doping rule violation can only happen to someone else, in reality anyone that uses supplements is at risk, even after taking any recommended precautionary steps.

### RISKS ASSOCIATED WITH SUPPLEMENT USE

Supplements may intentionally contain prohibited substances or may be inadvertently contaminated with prohibited substances. Some supplement manufacturers mislabel their products by not accurately specifying the contents or the relative amounts of each ingredient per dose. It is not uncommon for supplements to be cross-contaminated with banned substances during the manufacturing process if the manufacturer produces other products that contain prohibited substances. The reality is that there continue to be significant risks associated with supplement use.

### RISKS ASSOCIATED WITH USING OVER THE COUNTER MEDICATION OR HERBAL PREPARATIONS

Many medications available for common medical conditions, such as asthma or hay fever, may contain prohibited substances. Athletes need to be aware that these are readily available in products prescribed by their doctor or bought over the counter in a pharmacy. The advice from ISSF is simple

– check every single substance or medication before it is used, even if you have used it before. It is also important to remember that medications bought abroad may contain different substances than those in your country. Athletes, doctors, trainers and medical personnel should always check before an athlete takes them.

### WHERE TO GET INFORMATION ON THE PROHIBITED LIST?

These are but some of the options that athletes, coaches and athletes support personnel have to access information on the status of substances or methods:

- WADA website. [www.wada-ama.org](http://www.wada-ama.org)
- The ISSF website [www.issf-sports.org](http://www.issf-sports.org)
- The National Anti Doping Agency in your country.
- Contact the ISSF by email at [munich@issf-sports.org](mailto:munich@issf-sports.org) or by phone at +49-89-5443550

### BOTTOM LINE:

**FOR HEALTH REASONS  
FAIR PLAY,  
AND  
TO AVOID INADVERTENT  
ANTI-DOPING RULE VIOLATIONS,  
THE USE OF ALL PROHIBITED  
SUBSTANCES AND METHODS  
MUST BE AVOIDED BY ALL SHOOTERS.**



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