

የኢትዮጲያ ፀረ-አበረቃች ቅሞች ባለስል**ጣን** ETHIOPIAN ANTI-DOPING AUTHORITY

# Ethiopia Anti-Doping Authority Education and Training Manual

April 2022

Addis Ababa, Ethiopia

The war never wins with doping

## **1.** WHAT IS DOPING

Doping could be described as when athletes use prohibited substances or methods to unfairly improve their sporting performance. Doping is cheating and is fundamentally contrary to the spirit of sport. It is commonly believed that doping is simply the use of a prohibited substance and breaking the following anti-doping rules.

## 2. The values and principles of Clean Sport

Anti-doping programs aim to achieve and maintain a clean sports environment, The intrinsic value of sport, often called "the spirit of sport" is the ethical pursuit of human excellence through the dedicated perfection of each athlete's natural talents. Clean sport is an environment where the health of athletes is protected and where they are provided with the opportunity to pursue human excellence without the use of prohibited substances and prohibited methods. In doing so, clean sport protects the spirit of sport, which is the celebration of the human spirit, body, and mind, and is reflected in the values we find in and through sport, including

- Health
- Ethics, fair play, and honesty
- Athletes' rights
- Excellence in performance
- Character and Education
- Fun and joy
- Teamwork
- Dedication and commitment
- Respect for rules and laws
- Respect for self and other participants
- Courage
- Community and solidarity

## **3.** Rights And Responsibilities

#### 1.1. Athlete's Rights and Responsibilities

- must know and comply with all "applicable anti-doping policies and rules."
- must take responsibility for what you "ingest," meaning what you eat and drink and anything that may enter your body. The essential rule is this: if it is in your body, you are responsible for it. In legal terms, this is called "strict liability."

- must be available for sample collection.
- must inform medical personnel that they are obligated not to give you prohibited substances or methods. You must also take responsibility to make sure that any medical treatment you receive does not violate the Code.
- must cooperate with anti-doping organizations investigating anti-doping rule violations.
- For more details, see Article 21.1.

## **1.2.** Coaches, trainers, managers, agents, and other support personnel rights and responsibilities

Coaches, trainers, managers, agents, and other support personnel are often role models for athletes. They, too, have certain rights and responsibilities. These include:

- They must know and comply with all anti-doping policies and rules that apply to them or the athletes they support.
- They must cooperate with the athlete-testing program.
- They must use their considerable influence to promote a clean sport philosophy.
- They must cooperate with Anti-Doping Organizations investigating anti-doping rule violations.
- They must not use or possess any prohibited substance or method without a valid justification.

## 4. The principle of Strict Liability

#### • What is strict liability?

The principle of strict liability is applied in situations where urine/blood samples collected from an athlete have produced adverse analytical results.

It means that each athlete is strictly liable for the substances found in his or her bodily specimen and that an anti-doping rule violation occurs whenever a prohibited substance (or its metabolites or markers) is found in the bodily specimen, whether or not the athlete intentionally or unintentionally used a prohibited substance or was negligent or otherwise at fault. The rule provides that it is not necessary that intent, Fault, Negligence, or knowing Use on the Athlete's part is demonstrated by ETH-ADA or any other Anti-Doping Organization in order to establish an anti-doping rule violation.

## 5. Consequence of doping

It is widely recognized that sport itself is a risky enterprise and that many sports carry an inherent risk of physical harm through injury. An athlete runs very high risks by consuming doping substances or by using prohibited methods. This may result in very severe health but also sporting financial, legal, and social consequences.

#### \* Physical and Mental Health

- Physical health: depending on the substance, the dosage, and the consumption frequency, doping products may have particularly negative side effects on health. Some damages to the body are irreversible and may lead the athlete's life to be in great danger. The following section will outline the possible health consequences and sports benefits to using certain groups of doping substances.
- Alcohol

Prohibited in competition in some sports, alcohol is a central nervous system depressant, which slows down the actions of the brain and body. It can reduce tension, inhibition and self-control, which may result in an athlete taking risks that he/ she, would not normally take, placing both the subject and others at risk. Continued alcohol consumption can lead to the following health consequences:

- Vomiting
- Slurred speech
- Double vision
- Memory and comprehension loss
- Liver damage
- Impaired judgment, coordination, and reactions
- Incontinence
- Sleepiness
- Shallow breathing
- Sexual disorders
- Addiction
- Anabolic agents/androgenic steroids

Anabolic agents are the most used drugs in sports. They mimic testosterone, a male hormone. Examples of this drug include androstenediol, androstenedione, androsterone,

bolandiol, bolasterone, boldenone, clenbuterol, danazol, desoxy methyltestosterone (Madol), testosterone, nandrolone, stanozolol, boldenone, and clenbuterol. Anabolicandrogenic steroids are natural or artificial versions of the hormone testosterone. Testosterone is a male sex hormone that is found in large amounts in males and in smaller amounts in females. Testosterone is responsible for stimulating the development of the male reproductive system and the secondary male sexual characteristics such as hairiness and deep voice, and the accelerated growth of muscle and bone. Anabolic steroids have been used medically to treat patients who suffer from deficiencies in the naturally occurring male sex hormone testosterone, for the treatment of delayed puberty, some types of impotence and breast cancer as well as to treat body wasting caused by HIV/AIDS or other diseases. The use of anabolic-androgenic steroids can have serious effects on a person's health. The list of potential side effects is long and varied, but may include:

- Increased risk of liver disease,
- Increased risk of cardiovascular disease,
- Increased risk of contracting infectious diseases such as hepatitis and HIV/AIDS,
- High blood pressure,
- Psychological dependence

In addition, the following side effects may be found in males:

- Acne
- Shrinking of the testicles
- Reduced sperm production
- Impotence
- Infertility
- Enlarged prostate gland
- Breast enlargement
- Premature baldness
- Potential kidney and liver dysfunction
- Increased aggression and mood swings
- Libido disorders

The following side effects may be found in females:

- Acne
- Development of male features
- Deepening of the voice
- Excessive hair growth on the face and body
- Abnormal menstrual cycles
- Enlarged clitoris
- Increased aggression and mood swings
- Foetal damage
- Alteration of libido
  - Effects can include:
- Increases muscle mass
- Develops bone growth
- Increases strength, allowing the athlete to train harder
- Has a quick effect so there is a rapid improvement?
- Increases aggression, so seen as good for competitive contact sports
- Prevents muscle wastage
- Are an aid to rehabilitation.

#### • Artificial oxygen carriers

Artificial oxygen carriers are chemicals used to increase the ability to carry extra oxygen in the blood. Examples of artificial oxygen carriers include perfluorocarbons (PFCs) and hemoglobin-based oxygen carriers (HBOCs). Artificial oxygen carriers are of potential use when human blood is not available, the risk of blood infection is high or when time is too short to properly crossmatch the blood of a donor with that of a recipient. Most of these types of products are still undergoing clinical trials or are available for veterinary use only.

Side effects associated with the use of perfluorocarbons include:

- A transient fever
- Reduction in platelet count
- Blood infection (if preparations are impure)
- Potential overloading of the white blood cells
- Embolism (blocked blood vessel)

- Irritability
- Diarrhea
- Stroke

Possible side effects of hemoglobin-based oxygen carriers include:

- High blood pressure
- Vasoconstriction (constriction of the blood vessels)
- Kidney damage
- Iron overload

#### • Beta-blockers

are used as a relaxant. Examples of this drug include atenolol and nadolol. Beta-blockers are substances that decrease the output of blood from the heart. They are used to reduce heart rate, reduce blood pressure and help prevent dilation of the blood vessels. They are similar to alcohol. They are used in the management of cardiovascular disorders such as high blood pressure, angina, and heart disease. They may also be used in the treatment of migraines and to reduce symptoms of anxiety. The use of beta-blockers could be beneficial to athletes in precision sports, such as shooting and archery, as they can reduce heart rate and reduce tremors. Side effects of using beta-blockers include:

- Lowered blood pressure and slow heart rate
- Constriction of blood vessels in the arms and legs
- Sexual dysfunction
- Feelings of tiredness and decreased performance capacity in endurance activities
- Spasm of the airways
- Heart failure
- Sleep disorders
- Beta-2 Agonists

All selective and non-selective beta-2 agonists, including all optical isomers, are prohibited. This includes all routes of administration (e.g., oral, intravenous, and inhaled). Most inhaled beta-2 agonists are prohibited, including fenoterol, higenamine (Tinosporacrispa), and indacaterol. These drugs are commonly used to treat asthma, bronchoconstriction and pulmonary disease, by managing the reversible airway obstruction. Beta-2 Agonists can also be used during premature labor to delay childbirth.

They may have effects similar to the use of anabolic agents when used orally or injected, allowing athletes to increase muscle mass, reduce body fat and recover quicker. Possible side effects include:

- Palpitations
- Headaches
- Nausea
- Sweating
- Muscle cramps
- Dizziness
- Mood disorders
- Possible increase in morbidity in those using long-acting Beta2Agonist
- Blood doping

Blood doping is the administration of blood or blood-related products in order to increase the number of red blood cells in the body thereby increasing the delivery of oxygen to muscles and enhancing athletic performance. It may involve the use of blood previously withdrawn from the same person or from another person. Medically, red blood cells are administered for the treatment of severe anemia or blood loss following surgery or severe injury.

Blood doping carries dangerous health risks including:

- Jaundice
- Circulatory overload
- Increased risk of contracting infectious diseases such as hepatitis and HIV/AIDS (if share needles)
- Septicaemia (blood poisoning)
- Blood clots, stroke, or heart failure
- Metabolic shock
- Allergic reactions (ranging from rash or fever to kidney damage) if wrong blood type is used
- Cannabinoids

Cannabinoids are the psychoactive chemicals in the cannabis plant. The most active cannabinoid in cannabis is tetrahydrocannabinol (THC), of which the greatest

concentrations are found in the flowering tops and leaves of hemp plants. Cannabinoids can be found in the form of different preparations from the different parts of the cannabis plant and bear different names such as marijuana, pot, hashish, resin, oil, etc. Potential therapeutic uses of cannabinoids are still being investigated and include analgesia, the prevention of nausea associated with chemotherapy, and muscle relaxation. Effects of cannabinoids may include:

- Loss of perception of time and space
- Drowsiness and hallucinations
- Reduced vigilance, balance, and coordination
- Loss of concentration
- Increased heart rate
- Increased appetite
- Mood instability rapid changes from euphoria to depression
  Long-term marijuana use may result in:
- Loss of attention and motivation
- Impaired memory and learning abilities
- Possible weakening of the immune system
- Respiratory diseases such as lung and throat cancer and chronic bronchitis
- Psychological dependence
- Corticotrophins

Corticotrophin (adrenocorticotrophion – ACTH) is a naturally occurring hormone that is produced by the pituitary gland to stimulate the secretion of corticosteroids. It has been used medically as a diagnostic tool for malfunctions of the adrenal glands and in the treatment of certain neurological disorders such as infantile spasms and multiple sclerosis.

The short-term side effects of ACTH use include:

- Stomach irritation
- Ulcers
- Irritability
- Infections
- Other side effects may include:

- Softening of the connective tissue
- High blood sugar (hyperglycaemia)
- Reduced resistance to infections
- Weakening of an injured area in muscles, bones, tendons or ligaments
- Osteoporosis
- Cataracts
- Water retention
- Diuretics

Speeds up work of kidneys by producing more urine. This reduces fluid retention, which causes rapid weight loss. Diuretics are agents that help to eliminate fluid and minerals from the body by increasing the production or affecting the composition of urine. They stimulate the kidneys to increase the amount of urine produced to eliminate excess water and electrolytes from the body. Diuretics are used to treat high blood pressure, heart failure, and disease of the kidney. They can help to reduce tissue swelling that is caused by fluid retention. Diuretics may be used by athletes to mask the use of other prohibited substances, such as steroids. They may also be used by athletes to meet weight requirements for sports such as weightlifting, boxing, judo. exa.acetazolamide, albumin, amiloride, bumetanide, canrenone, chlorthalidone, chlorothiazide, desmopressin (DDAVP), dextran, eplerenone, furosemide, hydrochlorothiazide/thiazides, hydroxyethyl starch, indapamide, mannitol, metolazone, probenecid, spironolactone, tolvaptan, conivaptan, & elated plasma expanders or diuretics;)

- Dizziness or even fainting
- Dehydration
- Muscle cramps
- Drop in blood pressure
- Loss of coordination and balance
- Confusion, mental changes, or moodiness
- Cardiac disorders

#### • Erythropoietin (EPO)

EPO is a hormone produced by the kidneys that stimulate the production of red blood cells. In medical practice, a synthetic form of EPO is used to treat patients suffering from anemia that can be associated with chronic renal failure. From a sports perspective, EPO delivers more oxygen to the muscles and, therefore allows the athlete to perform at a higher level.

Some of the serious health risks associated with the use of EPO include:

- Thickened blood
- Increased risk of blood clots, stroke, and heart attacks
- Increased risk of contracting infectious diseases such as hepatitis and HIV/AIDS (from needles)
- Risk of developing, as an autoimmune reaction, EPO antibodies that can definitively destroy the EPO that is produced naturally by the body
- Gene doping

Gene doping is the non-therapeutic use of genes, genetic elements, and/or cells that have the capacity to enhance athletic performance. For instance, a synthetic gene or genetically modified cells are introduced into the body in order to produce a factor or induce a response, which will improve performance. The uses of gene transfer are still in the early stages of research. It is intended that gene transfer will permit replacing or altering missing, damaged or diseased genes in patients with serious illnesses. Since most gene transfer technologies are still in experimental phases, the long-term effects of altering the body's genetic material are unknown, although several deaths have already occurred during experimentation.

Some of the potential side effects of gene doping are:

- Cancer development
- Allergy
- Metabolic deregulations
- Glucocorticoid steroids

Substances produced by the adrenal gland are able to regulate numerous functions in the body and, in particular, inflammation. When administered systematically (into the blood), they can produce a feeling of euphoria. Glucocorticoid steroids are the most powerful

anti-inflammatory agents available in medicine and are used in the treatment of numerous non-infectious diseases that are characterized by pathologically inappropriate immune or inflammatory reactions. They also relieve pain. They are commonly used to treat asthma, hay fever, tissue inflammation, and rheumatoid arthritis. When administered into the bloodstream, glucocorticoid steroids have numerous side effects, involving different body systems.

Possible side effects of large doses of glucocorticoid steroids include:

- Fluid retention
- Increased susceptibility to infection
- Osteoporosis (abnormal loss of bone tissue resulting in fragile porous bones)
- Weakening of injured areas in muscle, bone, tendon or ligament
- Disorders of the nervous system, such as convulsions and muscle cramps
- Decrease in or cessation of growth in young people
- Loss of muscle mass
- Heartburn, regurgitation, and gastric ulcers
- Softening of connective tissue (such as tendons and ligaments)
- Alteration to the walls of blood vessels, which could result in the formation of blood clots
- Psychiatric disorders, such as changes in mood and insomnia

#### • Gonadotropins

These hormones include luteinizing hormone (LH) produced by the pituitary gland and human chorionic gonadotrophin (hCG) produced by the placenta during pregnancy. They stimulate the functioning of the testes and ovaries as well as the production of hormones in both males and females. Medically, gonadotrophins are used in the treatment of fertility disorders in both women and men as well as in cases of non-descended testes and in the treatment of delayed puberty. As hCG stimulates the production of testosterone, the side effects can be similar to those experienced by anabolic steroid use.

Other side effects of gonadotropins use include:

- Bone and joint pain
- Hot flushes
- Decrease in libido
- Impotence

- Allergic reactions and rash
- Nausea, dizziness
- Headaches
- Irritability
- Gastrointestinal problems
- Irregular heart beats
- Shortness of breath
- Loss of appetite
- Depression
- Tiredness

#### • Growth hormone and insulin-like growth factors

Human growth hormone (HGH) is a hormone produced by the pituitary gland below the brain, which has the potential to stimulate growth. The majority of the growth-promoting effects of hGH are mediated by insulin-like growth factor-1 (IGF-1), a hormone secreted by the liver and other tissues in response to hGH. hGH and IGF-1 are necessary for the normal growth of children and the maintenance of normal body composition and metabolism in adults. Medically, hGH is used to treat children whose pituitary gland does not produce enough growth hormone to allow normal growth to occur. Since 1989, it has been shown to be effective in treating adults with a growth hormone deficiency, a severe medical condition. As a result, athletes may use hGH to increase muscle mass. There are dangerous side-effects related to the use of these substances, including:

- Tremors, sweat, anxiety
- Worsening of cardiovascular diseases
- Increasing development of tumors
- Cardiomegaly (abnormal enlargement of the heart)
- Accelerated osteoarthritis (chronic breakdown of cartilage in the joints)
- Acromegaly in adults (distorted growth of internal organs, bones, and facial
- features and the enlargement and thickening of fingers, toes, ears, and skin)
- Muscle, joint, and bone pain
- Hypertension
- Fluid retention

- Diabetes in individuals who may already be prone to the disease
- Gigantism in young people (excessive growth of the skeleton)

#### • Insulin

A hormone produced by the pancreas and involved in the regulation of blood sugar levels, insulin acts on the metabolism of carbohydrates, fats and proteins. Medically, insulin is used in the management of diabetes. The side effects of insulin use for non-medical purposes are severe and include low blood sugar (hypoglycemia), which in turn may cause:

- Hypoglycemic tremors
- Nausea
- Weakness
- Shortness of breath
- Drowsiness
- Pancreatic disease
- Coma
- Brain damage and death

#### • Narcotics/Analgesics

This enables athletes to get back into action quickly after an injury. They act as painkillers. Narcotics act on the brain and spinal cord to reduce feelings of pain. Narcotics hold a variety of uses in medicine, including to relieve pain, as sedatives, or to treat coughs or respiratory distress in terminally ill patients. The use of narcotics to reduce or eliminate pain can be dangerous as the substance is merely hiding the pain. With the false sense of security caused by narcotics, the user may ignore a potentially serious injury, and continue the activity, risking further damage or causing permanent damage. Apart from the risk of further or permanent damage, narcotics can have other dangerous side effects, such as:

- Slowed breathing rate
- Decreased heart rate
- Sleepiness
- Loss of balance, coordination, and concentration
- Euphoria

- Nausea and vomiting
- Constipation
- Physical and psychological dependence, leading to addiction
- Suppression of the respiratory system and death
- Stimulants

Substances that act on the central nervous system to stimulate the body both mentally and/or physically, examples of stimulants are amphetamines, cocaine, ecstasy, ephedrine and pseudoephedrine. Stimulants have many and varied uses in conventional medicine. They are used for conditions affecting the cardiovascular system, such as shock, heart attack, slow heart rate (bradycardia), loss blood pressure and to stop minor bleeding. Stimulants are also used to treat respiratory disorders, nasal congestion and the common cold. Other stimulants are used in the management of narcolepsy (excessive daytime sleepiness) and the management of attention deficit hyperactivity disorder (ADHD). Athletes may use stimulants to improve endurance, reduce fatigue and increase aggressiveness. Those trying to qualify for a lower weight class may use stimulants to suppress appetite. The use of certain stimulants can cause serious cardiovascular and psychological

problems, as well as various other side effects, such as:

- Overheating of the body
- Dry mouth
- Increased and irregular heart rate
- Increased blood pressure
- Dehydration
- Increased risk of stroke, cardiac arrhythmia, and heart attack
- Insomnia
- Anxiety and aggression
- Weight loss
- Problems with coordination and balance
- Tremors (involuntary trembling or shaking)
- Can result in dependence and addiction

#### • Peptide hormones, mimetics, and analogs

Are synthetic substances that copy natural hormones in the body. Examples of these drugs include Human Growth Hormone (HGH) and erythropoietin (EPO). EPO promotes the production of red blood cells and therefore increases the amount of oxygen the blood can transport at any one time. More oxygen is provided to the muscles which allows the athlete to work longer and harder. EPO thickens the blood, inhibiting circulation, which can lead to a heart attack or stroke.

Masking agents

Are taken to hide the presence of another drug, which would otherwise disqualify the performer. Examples of this drug include epitestosterone, probenecid, and diuretics.

Some masking agents do not appear on the list of banned substances for particular sports, so their presence is legal.

Narcotic analgesics

are addictive drugs and are usually injected into the bloodstream Examples of these drugs include heroin, methadone, pethidine, morphine, and codeine.

Side-effects can include:

- Loss of concentration.

- Loss of balance.

- Loss of coordination making sport dangerous.

.. Using these drugs can make an injury worse. They are also highly addictive.

Effects can include:

Reduces the sensation of the central nervous system (CNS) and helps pain relief.

Masks pain so the athlete is back from injury sooner.

• Ergogenic aids

Ergogenic aids are the external influences that can be determined to enhance performance in sports. These include mechanical aids, pharmacological aids, physiological aids, nutritional aids, and psychological aids.

- Mechanical aids: It includes altitude training, Aqua training, uphill and downhill running, treadmills, weight training, clothing, Footwear, equipment, etc. These are valid Ergogenic aids.

- (ii) Pharmacological aids: It includes anabolic steroids, Beta Blocker, Caffeine, protein supplements, and Sodium bicarbonate. This is banned by IOC in sports.
- (iii) Physiological aids: Is like Acupuncture, Blood doping, creatine, Herbal medicines, Human Growth hormones, physiotherapy, sports massage, sauna, etc. Many of these are banned in sports.
- (iv) Nutritional aids: They are like Bicarbonate of soda, caffeine, creative, and sports drinks. Many of these are banned by IOC in sports.
- (v) Psychological Aids: These include meditation, motivation, cheering, and Relaxation. Most of these are valid and applicable in sports.
- Mechanical aids: It includes altitude training, Aqua training, uphill and downhill running, treadmills, weight training, clothing, Footwear, equipment, etc. These are valid Ergogenic aids.

#### • Pharmacological aids:

It includes anabolic steroids, Beta Blocker, Caffeine, protein supplements, and Sodium bicarbonate. This is banned in sports.

#### • Physiological aids:

It is like Acupuncture, Blood doping, creatine, Herbal medicines, Human Growth hormones, physiotherapy, sports massage, sauna, etc. Many of these are banned by IOC in sports.

#### • Nutritional aids:

They are like Bicarbonate of soda, caffeine, creative, and sports drinks. Many of these are banned by IOC in sports.

#### • Psychological Aids:

These include meditation, motivation, cheering, and Relaxation. Most of these are valid and applicable in sports.

2. Psychological health: some doping substances may not be detrimental to the body but exercise an impact on mental health. It has been scientifically evidenced that anxiety, obsessive disorders, or psychosis are direct consequences of doping.

#### ✤ Social consequences

1. The existence of an athlete who was held guilty of doping may be completely disrupted. Indeed, doping may represent a danger to health, but it may also be

prejudicial to fame, respect, and creditworthiness. Even in the future negative findings are regularly questioned by the media and the entourage. The poor image will remain in the collective unconscious and the athlete could remain isolated.

#### ✤ Financial consequences

 As regards high-performance sports, an infringement of anti-doping rules often leads to a loss of income, the reimbursement of prize money, and of sponsorship money. An athlete suspended for several years, or even life-banned, cannot earn his/her living as usual and can even be forced into debt to live on a day-to-day basis.

#### Sporting consequences

 A doping violation may mean loss of results, rankings, medals, and qualification places at events. It could also have an impact on members of a team causing medals to be lost.

#### ✤ Legal consequences

1. Doping may have major legal consequences. A doped athlete may be suspended, i.e., he/she may not take part in a sports competition on or in organized training sessions.

## 6. Anti-doping rule violation

Athletes or other Persons shall be responsible for knowing what constitutes an anti-doping rule violation and the substances and methods that have been included on the Prohibited List. The following constitute anti-doping rule violations:

- Presence of a Prohibited Substance or its Metabolites or Markers in an Athlete's Sample. See Article 2.1
- Use or Attempted Use by an Athlete of a Prohibited Substance or a Prohibited Method. See Article 2.2
- Evading, Refusing, or Failing to Submit to Sample Collection by an Athlete. See Article
  2.3
- ➢ Whereabouts Failures by an Athlete. See Article 2.4
- Tampering or Attempted Tampering with any part of Doping Control by an Athlete or Other Person. See Article 2.5
- Possession of a Prohibited Substance or a Prohibited Method by an Athlete or Athlete Support Person. See Article 2.6

- Trafficking or Attempted Trafficking in any Prohibited Substance or Prohibited Method by an Athlete or Other Person. See Article 2.7
- Administration or Attempted Administration by an Athlete or Other Person to any Athlete In-Competition of any Prohibited Substance or Prohibited Method, or Administration or Attempted Administration to any Athlete Out-of-Competition of any Prohibited Substance or any Prohibited Method that is Prohibited Out-of-Competition. See Article 2.8
- Complicity or Attempted Complicity by an Athlete or Other Person. See Article 2.9
- > Prohibited Association by an Athlete or Other Person. See Article 2.10
- Acts by an Athlete or Other Person to Discourage or Retaliate Against Reporting to Authorities. See Article 2.11

#### 1.1. Doping in Sport Consequences and Sanctions

The sanction for an anti-doping rule violation (ADRV) depends on the type of violation, the circumstances of the case, which substance the athlete took, and whether this was a first-time or repeat violation.

An *Athlete's* or other *Person's* violation of an anti-doping rule may result in one or more of the following:

- (a) Disqualification means the *Athlete's* results in a particular *Competition* or *Event* are invalidated, with all resulting *consequences* including forfeiture of any medals, points, and prizes;
- (b) *Ineligibility* means the *Athlete* or other *Person* is barred on account of an anti-doping rule violation for a specified period of time from participating in any *Competition* or other activity or funding as provided in Article 10.12.1;
  - (c) Provisional Suspension means the Athlete or other Person is barred temporarily from participating in any Competition or activity prior to the final decision at a hearing conducted under Article 8;
- (d) *Financial Consequences* means a financial sanction imposed for an anti-doping rule violation or to recover costs associated with an anti-doping rule violation; and

(e) Public Disclosure or Public Reporting means the dissemination or distribution of information to the general public or Persons beyond those Persons entitled to earlier notification in accordance with Article 14. Teams in Team Sports may also be subject to Consequences as provided in Article 11.

#### **1.2.** Sanctions on Individuals

A major difference between the original Code (2003 Code) and the 2009 Code was an increase in sanctions and allowing Anti-Doping Organizations (ADOs) more flexibility in applying sanctions. While this flexibility provided for enhanced sanctions, for example in cases involving aggravating circumstances, lessened sanctions were possible where the athlete could establish that the substance involved was not intended to enhance performance. Further changes to sanctions were made to the 2015 Code, following suggestions made by stakeholders during the 2015 Code review process, including increasing the period of ineligibility from two to four years for all intentional doping. During the consultation phase, athletes called for a longer period of ineligibility for intentional cheats, whilst maintaining flexibility for inadvertent, unintentional doping. Athletes were clear in their message: longer sanctions - which will include an athlete missing an Olympic Games - will act as a greater deterrent. For presence, use, or possession of a non-specified substance, the period of ineligibility is now four years, unless the athlete can establish that the violation was not intentional. The period of ineligibility for an athlete found to have no significant fault for an Adverse Analytical Finding (AAF) involving a 'specified substance' or a contaminated product may range from a reprimand to a two-year suspension. A sanction may also be reduced, eliminated or have a period of ineligibility suspended in cases where the individual sanctioned provides substantial assistance in discovering or establishing an Anti-Doping Rule Violation (ADRV). Consideration of a reduction of ineligibility can also be taken into account in circumstances where there is a prompt admission of an ADRV or where there is an admission in the absence of other evidence.

#### **1.3.** Multiple ADRVs

As with the first violations, the period of ineligibility for a second ADRV depends on the circumstance of both the first violation and the second. Each ADRV must take place within the same ten-year period in order to be considered an ADRV. A third ADRV will always result in a

lifetime period of ineligibility, except when the third violation fulfills the condition for elimination or reduction of the period of ineligibility or is the result of a Whereabouts Failure. In these cases, the period of ineligibility shall be from eight years to a lifetime. For a second ADRV, Article 10.7.1 of the Code stipulates that the period of ineligibility

shall be the greater of:

- a) Six months
- b) One-half of the period of ineligibility imposed for the first ADRV without taking into account any reduction
- c) Twice the period of ineligibility otherwise applicable to the second ADRV violation is treated as if it were the first violation without taking into account any reduction.

#### 1.4. Team Sports

If more than two members of a team in a team sport are found to have committed an ADRV during an event period, the ruling body of the event shall impose an appropriate sanction on the team (e.g., loss of points, disqualification from competition or event, or other sanction) in addition to any consequences imposed on the individual athletes committing the ADRV.

Type of Violation	Range of Sanctions
Possession or use of a prohibited substance	Minimum – Reprimand (with proof of
-	
	contaminated products on specified substances)
	Standard 2 1 years
	Stanuaru – 2-4 years
Refusing to be tested	Standard – 4 years
Trafficking	<b>First violation</b> – 4 years to lifetime
Combination of 3 whereabouts failures (within	First violation $-2$ years
12 months)	
12 monuis)	
Tampering with the testing process	Standard – 4 years
Administration	<b>Standard</b> – 4 years to a lifetime
	~
Prohibited association	Standard – 2 years

<b>1.5.</b> Anti-doping rule violations and Range of San	ctions
--	--------

Encouraging or assisting an athlete to dope or	Standard – 2- 4 year
providing a doping substance	

## 7. Prohibited List and substances

WADA shall, as often as necessary and no less often than annually, publish the Prohibited List as an International Standard.

#### Prohibited Substances and Prohibited Method

Substances and Prohibited Methods are prohibited as doping at all times (in both In-Competition and Out-of-Competition) because of their potential to enhance performance in future Competitions or their masking potential, and those substances and methods which are prohibited In-Competition only. The Prohibited List may be expanded by WADA for a particular sport. Prohibited Substances and Prohibited Methods may be included in the Prohibited List by general category (e.g., anabolic agents) or by specific reference to a particular Substance or Method.

#### \* Specified Substances or Specified Methods

For purposes of the application of Article 10, all Prohibited Substances shall be Specified Substances except as identified on the Prohibited List. No Prohibited Method shall be a Specified Method unless it is specifically identified as a Specified Method on the Prohibited List

#### Substances of Abuse

For purposes of applying Article 10, Substances of Abuse shall include those Prohibited Substances that are specifically identified as Substances of Abuse on the Prohibited List because they are frequently abused in society outside of the context of sport.

#### \* New Classes of Prohibited Substances or Prohibited Methods

In the event WADA expands the Prohibited List by adding a new class of Prohibited Substances or Prohibited Methods in accordance with Article 4.1, WADA's Executive Committee shall determine whether any or all Prohibited Substances or Prohibited Methods within the new class shall be considered Specified Substances or Specified Methods under Article 4.2.2 or Substances of Abuse under Article 4.2.3.

## 8. Therapeutic use exemptions

#### **\*** WHAT IS A THERAPEUTIC USE EXEMPTION (TUE)?

Athletes may have illnesses or conditions that require them to take medications or undergo procedures. If the medication or method an athlete is required to use to treat an illness or condition is prohibited as per the World Anti-Doping Agency's (WADA) Prohibited List, a TUE may authorize that athlete to use that substance or method while competing without invoking an anti-doping rule violation (ADRV) and applicable sanction. Applications for TUEs are evaluated by a panel of physicians — the TUE Committee (TUEC).

- A Therapeutic Use Exemption (TUE) is an official medical document giving an athlete permission to take a medication that is ordinarily prohibited for the treatment of a legitimate condition. It is only valid for a given period of time.
- It is a documented medical file approved by a TUE Committee accepting that there is a legitimate need to take medication and no equal alternative available.
- It permits the athlete to take the defined medication while competing without them registering a doping offense.
- The use of TUEs is carefully monitored to avoid any abuse or manipulation.
- It is NOT a drug or a medication

## 9. Supplements

Many athletes believe that the demands of competing at an elite level require the use of dietary or nutritional supplements. While the IOC's Nutrition Working Group, would agree that an athlete with a demonstrated deficiency of an essential vitamin or mineral may benefit from the use of supplements where it is not possible to consume enough food to compensate for the deficiency, the use of supplements does not compensate for poor food choices or an inadequate diet. (IOC, 2003).

#### 1.1. What You Need to Know About Supplements

- There's an alarming increase in the number of supplements resulting in harmful side effects (medical problems and fatalities) as well as positive drug tests in youth and adults alike (locally and globally).
- There is a lack of legislation and governance in the supplement industry locally and abroad – products can be advertised and sold with misleading claims, incorrect labeling, and a lack of scientific-grade evidence of efficacy and safety.
- Despite the marketing hype and product claims, the fact remains that the majority of supplements on the market have not been tested according to proper scientific and objective standards, and their claims of superiority, efficacy, and safety cannot be guaranteed.

- Be aware that supplement manufacturers and retailers (including pharmacies) may indeed claim that their product is 'scientifically tested' or 'safe', but at closer inspection, the evidence may be insufficient, irrelevant, misinterpreted, not applicable to youth, or in the worst, fabricated.
- Claims that the product is 'natural' or 'herbal' do not necessarily mean that it is harmless and cannot get you banned.
- Many herbal components can have potentially harmful side effects, can lead to harmful interactions with other herbals or medications, and/or lead to a failed drug test.
- Vitamins, minerals, antioxidants (and other nutrients) from supplements can more easily reach levels that exceed safety limits, which can cause negative health effects and block important training adaptations that will negatively affect your sporting performance.
  - ✓ Examples: Large doses of Vitamin C (>2g/day) have not only been shown to block important training adaptations and reduce performance but also increase muscle damage and delay recovery.
  - Large doses of antioxidants can block some of the health-enhancing effects of exercise and have been linked to increased risk of certain cancers and a negative impact on cardiovascular health.
  - Certain vitamins/minerals in excess can *impair* immune function; limit the function (and beneficial effects) of others.
  - Reliance on supplements shifts focuses away from the more important and proven methods of achieving optimal performance and health.

#### 1.2. Industry Claims

A major concern with the supplement industry is that they do not have to follow the same good manufacturing practices (GMP) as pharmaceuticals, and manufacturers are not required to display the entire ingredient list on the packing of substances. Many supplements that are advertised as muscle builders and fat burners are known to contain a prohibited substance. Those that claim to increase energy, including those that claim to be natural or herbal, are not likely to improve performance and are not supported by research. In fact, most supplement manufacturers claim that their products are backed by valid scientific research, which is not the case.

Furthermore, there is no strong scientific evidence to support the claims that supplements such as glutamine, zinc, Echinacea, and colostrum, can provide a boost to the immune system.

#### 1.3. Risks Associated with The Use of Supplements

These poor GMP and labeling practices can put an athlete subject to doping control at risk of committing an anti-doping rule violation (ADRV). While the risk may be higher with supplements sold on the black market or on the Internet, those sold in shops labeled herbal or natural may also be contaminated.

Due to the principle of strict liability in the World Anti-Doping Code (Code), an ADRV associated with the consumption of a contaminated supplement, whether it is due to poor labeling or contamination during the manufacturing process, is responsible and will be sanctioned. While this sanction may be reduced if the athlete can prove that the adverse analytical finding (AAF) was due to the use of a poorly labeled or contaminated supplement, the athlete is not dissolved of all responsibility. The contamination of substances and the lack of scientific research can also put the health of those consuming the supplements at risk. Many athletes fail tests because of the supplement products they use.

The risks with supplements are:

- Supplements can contain banned substances
- Supplements can be contaminated with banned substances during the manufacturing process
- Supplements may contain ingredients listed differently from how they appear on the Prohibited List
- Be wary of fake supplement products, especially when buying over the internet
- There is no guarantee that any supplement product is free from banned substances

#### 1.4. Reducing The Risk

The World Anti-Doping Agency (WADA) hosted symposia held in Montreal (Canada) in 2004 and in Leipzig (Germany) in 2005, to discuss the use of supplements in sport. Both gathered leading experts from sport, the anti-doping community, medical and scientific fields, the supplement industry, governments, athletes, and coaches in an effort to find ways and means of reducing the risk of supplement use to athletes. While the outcomes of both events suggested

that the supplement industry itself had to take responsibility for self-regulation, with the goal of improving the quality of products, minimizing contamination, ensuring accurate labeling, and demonstrating a commitment to and support for testing and certification programs, governments also have a key role to play.

It was determined that, since the marketing of contaminated supplements were an issue of public health and consumer protection, governments are critical to ensuring that the supplement industry is more tightly regulated.

have ratified UNESCO International Furthermore, governments that the Convention against Doping in Sport (Convention) "where appropriate, shall encourage producers and distributors of nutritional supplements to establish the best practices in the marketing and distribution of nutritional supplements, including information regarding their analytical composition and quality assurance" (Article 10 Nutritional Supplements of the UNESCO Convention).

#### 1.5. Managing the Risk of Supplement

There are no guarantees that any supplement product is free from banned substances. Athletes must be fully aware of the risks to their career if they chose to use a supplement product.

#### 1.5.1. The Facts - What You Need to Know About Supplements

- No guarantees can be given that any supplement product is free from banned substances.
- All athletes must undertake thorough internet research prior to using any supplement product. This is a WAD Code requirement.
- Not knowing is not an excuse. If you test positive, it will be for you to prove how the banned substance entered your system.
- The Code makes a provision for contaminated products (supplements), so make sure you can prove that you have taken all steps to manage the risks associated with supplement use.

#### 1.5.2. What you should do

- Assess the need: seek advice from a qualified medical professional to determine whether you need to use a supplement.
- Assess the risks: only use batch-tested supplement products to minimize your risks of contamination.
- Assess the consequences: to your career prior to using any supplement product.
  You could receive a four-year ban.

- Use batch-tested products: If you still chose to use a supplement product, you need to use a batch-tested product. Make sure you check the actual batch numbers prior to use.

#### 1.6. ETH-ADA Advice about supplements

Before you take a supplement, you should:

- assess the need all athletes should seek advice from a medical professional or nutritionist on their need to use supplement products
- assess the risk undertake thorough research of all supplement products you are considering taking
- assess the consequences you could receive a four-year ban

All athletes are advised to be vigilant in using any supplement. No guarantee can be given that any particular supplement is free from prohibited substances.

An important principle of the Code is that of strict liability, which states that athletes are solely responsible for any prohibited substances they use, attempt to use, or is found in their system regardless of how they got there and if there was an intention to cheat. Before taking supplements, athletes must therefore assess the need, risk, and consequences of their careers.

Diet, lifestyle, and training should all be optimized before athletes consider supplements and they should always consult a medical professional or nutritionist and seek advice.

Supplements may claim to be drug-free or safe for drug-tested athletes. It is not possible to guarantee that specific supplements will be free of prohibited substances and athletes can only reduce the risk of inadvertent doping by making informed decisions.

There is an array of supplements available for athletes to purchase that have no prohibited substances listed as ingredients. Despite this, there have been several cases whereby supplement products have been contaminated with prohibited substances as defined by the World Anti-Doping Code (the Code) Prohibited List.

## **10.** Sample Collection Process

#### 10.1. Steps of sample collection

#### A. Athlete Selection

You can be selected for doping control at any time and any place.

#### **B.** Notification

A Doping Control Officer or chaperone will notify you that you have been selected for doping control. The DCO or chaperone will inform you of your rights and responsibilities. These include the right to have been a presentative presence throughout the process. You will be asked to sign a form confirming that you have been selected for doping control.

#### C. Reporting To the Doping Control Station

You should report immediately to the doping control station. The DCO or chaperone may allow you to delay reporting to the station for an activity such as a news conference or to complete a training session. However, once you have been notified that you have been selected for doping control, the DCO or chaperone will accompany you until the completion of the sample collection process

#### **D.** Selection Of the Collection Vessel

You will be given a choice of individually sealed collection vessels. You may select one. You should verify that the equipment is intact and has not been tampered with. You should, at all times, maintain control of the collection vessel.

#### E. Providing A sample,

During the sample provision, only you and the DCO or chaperone of the same gender are permitted in the washroom. You will be asked to wash your hands. You will then be asked to raise or lower your clothing so that the DCO or chaperone has an unobstructed view while you provide the sample.

#### F. Volume Of Urine

The DCO shall ensure, in your full view, that you have provided the minimum required volume: 90 ML. If at first, you are unable to provide 90 ML, you will be asked to provide more until that level is met.

#### G. Splitting The Sample,

You will be given a choice of individually sealed sample collection kits. Choose one. You should verify the equipment is intact and has not been tampered with. Open the kit. Confirm the sample code numbers on the bottles, the lids, and the containers all match. Now you are going to split the sample, pouring at least 30 mL into the B bottle and the remaining urine into the A bottle. You will be asked to leave a small amount in the collection vessel. The reason for this is so the DCO can measure its specific gravity. Pour the urine yourself unless you need help. In this instance, you will need to provide consent for your representative or the DCO to pour on your behalf.

#### H. Sealing The Sample,

Next, seal both the A and B bottles. You (or your representative) and the DCO should verify that the bottles are sealed properly.

#### I. Measuring The Specific Gravity

The DCO is required to measure the sample's specific gravity. If it does not meet certain requirements, you will be asked to provide another sample.

#### J. Completing The Doping Control Form

On this form, you should provide information about any medication – prescription or nonprescription – or dietary supplements you have taken recently. This form is also the place to note any comments you may have regarding any part of the doping control process. You will be asked whether you consent to have your sample used anonymously for research once the analysis for doping control purposes is completed. You may say yes or no. Be absolutely certain everything is correct, including the sample code number. Make sure, too, that the laboratory copy of the form does not include any information that could identify you. You will be asked to sign the form. At the completion of the collection, you will receive a copy of your doping control form.

#### K. The Laboratory Process

Your samples are packed for shipping by a secure process. Your samples are sent to a WADA-accredited laboratory. When processing your samples, that lab will adhere to the

International Standard for Laboratories, ensuring the chain of custody is maintained. You're A sample is analyzed. Your B sample is securely stored. It may be used to confirm an Adverse Analytical Finding from the A sample. The lab will report the results of your sample analysis to the responsible Anti-Doping Organization and to WADA.

#### 10.2. Athletes with disabilities and the doping control process

During the sample collection, process athletes with disabilities have additional rights, depending on their disability type they can ask for additional help whether the DCO or their coach or someone they trust can enter into the Doping Control station to help them out with the sample collection process.

- An athlete with restricted mobility or restricted manual dexterity may ask the athlete representative or the DCO to assist when handling equipment, splitting the sample or completing paperwork.
- Athletes with a visual impairment may always be accompanied by an athlete representative during the sample collection including to the washroom area; however, the representative will not witness the passing of the sample. The athlete representative or the DCO may read the doping control form to you, and you may ask the athlete representative to sign the doping control form on your behalf.
- Athletes with an intellectual disability may always be accompanied by an athlete representative during the sample collection procedure, including to the washroom area; however, the representative will not witness the passing of the sample.
- Athletes using condom drainage or indwelling catheter drainage should remove the existing collection bag and drain the system so that a fresh sample can be obtained as soon as possible after notification and under the observation of the DCO.
- Where possible, the existing urine collection or drainage system should be replaced with a new, unused catheter or drainage system prior to the sample collection.
- Athletes who self-catheterize may use their own catheter to provide a sample and the new catheter should be produced in tamper-evident wrapping.

### 10.3. Underage age athletes and the doping control process

During the sample collection process, underage athletes have the right to be accompanied by their family member, legal guardian, coach, or someone else whom they think it can represent them on the doping control process.

#### 10.4. Athlete Rights & Responsibilities during Testing

#### **\*** Athletes have the right to:

- Nominate a representative of their choice to accompany them to the Doping Control Station
- Request information regarding the sample collection procedure
- Request a delay in reporting to the Doping Control Station, or leave the Doping Control Station once they have reported, with the consent of a Doping Control Official, while at all time in full view of the chaperone for valid reasons including to :
- Attend a victory ceremony
  - Compete in further events
  - Finish a training session
  - Receive necessary medical attention
  - Fulfill media commitments
  - Warm down
  - Undertake other activities considered reasonable and approved by the Doping Control Officer
- Request modifications to standard Sample Collection Procedures this will be recorded on the Doping Control Test Form and only applies to athletes with a disability
- Request an interpreter if they have (for any reason)

## 11. ATHLETES RETURNING FROM SANCTION

Athletes who are sanctioned for anti-doping rule violations have the potential to commit other Anti-Doping Rule Violations (ADRVs) unrelated to testing during this period, it may be most practical to educate them soon after the sanction is given. Even after their sanction have been finished athletes must be learned and have additional knowledge on doping.

To do that ETH-ADA has constructed a plan based on the WADA training manual for athletes returning from sanctions: -

- Reach out to the athlete and have his or her consent
- have detailed information on what was the athlete's case that got him or her sanctioned

- Give them additional training on the case that got them sanctioned
- Give them additional training on additional anti-doping training
- Explain in detail the advantage of creating a clean sport.
- Explain to the athletes what the consequences of doping are?