



## *Teaching Awareness of Ethical Governance in Sport*

Topic: 4

### **Doping – Teacher’s Guide**

#### Introduction

The aim of this topic is to introduce students to doping including definition, types of doping, why athletes take drugs and the health consequences of doping. Moreover, to increase students knowledge and awareness regarding the factors associated with doping and the related health consequences, the ethical issues involved in doping in sport and the anti-doping interventions in school and sport settings.

Doping occurs in all sports, at different level of competition, from beginner to performer. Doping is correlating with the efforts of increasing the performance, but in the same time with the reducing of social pressure to gain the competitions, to cope with stress, pain or depression. Doping is more than using drugs, a lot of other methods were developed in the last years, like gene doping or increasing the oxygen transport; also, sometimes doping is correlate with usual drug administration for a medical problems, not necessary for cheating.

#### **Definition of Doping**

Although attempts to enhance athletic performance are probably much older, the word “doping” was first mentioned in 1889 in an English dictionary. It described originally a mixed remedy containing opium, which was used to “dope” horses. “Dope” was a spirit prepared from the residues of grapes, which Zulu warriors used as a “stimulant” at fights and religious procedures and which also reportedly was called “doop” in Afrikaans or Dutch. Later, the meaning of “dope” was extended in a broader sense to other beverages with stimulating properties. The expression was introduced into English Turf Sport about 1900 for illegal drugging of racehorses.

- 1988 International Olympic Committee: Doping is the use of substances from the prohibited classes of agents and the use of prohibited methods.
- 1989 Anti-Doping Convention of the Council of Europe “Doping in sport” the administration to or the use of pharmacological doping agents or of doping methods by athletes.



## Types of doping

### A. Substances & methods prohibited at all times

Prohibited substances: 1. non-approved substances, 2. peptide hormones, growth factors, related substances, and mimetics, 3. beta-2 agonists, 4. hormone and metabolic modulators, 5. diuretics and masking agents

Prohibited methods: 1. manipulation of blood and blood components, 2. chemical and physical manipulation, 3. gene doping

### B. Substances & methods prohibited in-competition

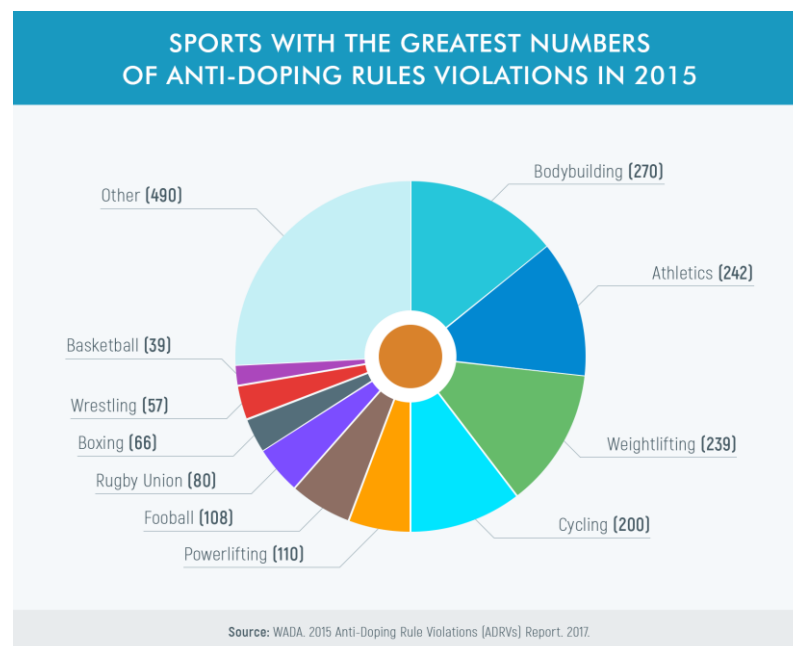
Prohibited substances: 6. Stimulants, 7. Narcotics, 8. Cannabinoids, 9. glucocorticoids

C. Substances prohibited in particular sports: 1. Beta-blockers (Archery, automobile, billiards, Darts, Golf, Shooting, Skiing/Snowboarding, aerials/halfpipe and snowboard halfpipe/big air, Underwater sports)

The official text of the Prohibited List shall be maintained by WADA and shall be published in English and French. In the event of any conflict between the English and French versions, the English version shall prevail.

[https://www.wada-ama.org/sites/default/files/prohibited\\_list\\_2018\\_en.pdf](https://www.wada-ama.org/sites/default/files/prohibited_list_2018_en.pdf)

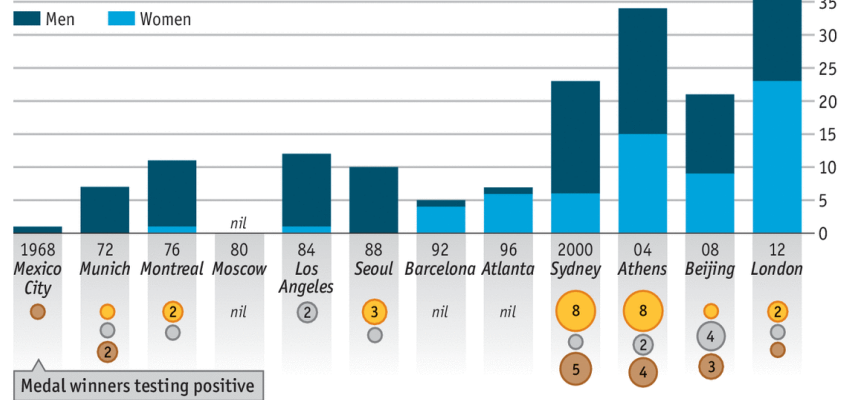
**Present the following information and discuss the prevalence of doping and why athletes take drugs**





### Medals of dishonour

Athletes disqualified after testing positive for a banned substance, summer Olympics, by host city



Sources: International Olympic Committee; World Anti-Doping Agency; Sports Reference; *The Economist*

Economist.com

<https://ewn.co.za/2016/04/29/Which-nations-are-the-worst-doping-offenders>

## SPORT ENHANCEMENT: PAST, PRESENT, AND FUTURE

Product	Purpose
Anabolic steroids	Artificial substances related to male sex hormones that are used to build muscles.
Stimulants	Substances such as amphetamines that act on the brain to increase alertness.
Human growth hormone (HGH)	Believed to enhance strength.
Erythropoietin (EPO)	Believed to increase endurance.
Tetrahydrogestrinone (THG); "the clear"	An anabolic steroid once undetectable by anti-doping labs.
Cheetahs	Carbon fiber blades that replace the amputated lower legs of Oscar Pistorius, a South African sprinter.
Gene therapy	Genetic manipulation may one day improve athletic ability.

<http://sites.psu.edu/performanceenhancingdrugs/>

### Health consequences of doping



**TABLE 21.1 Performance enhancers. Examples of prohibited performance enhancers for which athletes have been banned**

Name	Effect	Unwanted effects
Anabolic androgenic steroids	Increased muscle growth; increased red blood cell production	Decrease in endogenous sex hormones; acne; temporary infertility; rarely, increased aggression; ventricular hypertrophy; liver damage; virilization in females; testicular atrophy and gynecomastia in males; increase risk of prostate cancer
Human recombinant erythropoietin (EPO), darbepoetin	Increase red blood cell production (increases performance in endurance sports)	Can increase blood viscosity to dangerous levels in very high doses, increasing risk of stroke or heart attack
Some stimulants (Mesocarb, Bromantan, Etilefrine, Ephedrine, Amphetamine, Cocaine, Adrenaline (new in 2006))	Improved alertness and reaction time; increased stamina; increased confidence	Cardiovascular stress, increased risk of psychosis (amphetamine); cardiac arrhythmia, insomnia, bradycardia, tachycardia, anorexia
Enhancement of oxygen transfer—blood doping, perfluorochemicals	Increased red blood cell count	Risks identical to EPO or hypoxic training
Cannabinoids such as THC	None known—likely to decrease performance	None known

### “Why not Doping?” Discuss ethical and other related issues regarding doping

1. Doping is cheating, and not “fair play”.
2. Doping renders medical risks.
3. Doping has brought the lawyers into the sporting world, meaning that an athlete (accurately) accused of doping often seeks juridical assistance to find a way to avoid being banned, with the following loss of honour, work (if professional) and money. Consequently, an innocent athlete accused of doping might need a legal adviser to prove his/her innocence. Finally, possession and use of doping agents is according to national laws prohibited in most countries and might carry a penalty of fines or imprisonment.
4. Scientific studies in sport centres comparing different training methods will be spoiled if some athletes use doping agents during the study period.
5. Doping destroys the image of sport, traditionally being regarded as “a sound mind in a sound body”, an image being especially important for our sporting kids and youngsters. We might accept that our adolescent child beats us in tennis after a summer course, but not at the cost of a new extreme muscular size, a dark voice and a fast-growing beard

C. Ehrnborg, T. Rosén / Growth Hormone & IGF Research 19 (2009) 285–287

### Ask the students to reflect on and discuss the following doping-related dilemma

Think of yourself as coach of high level athlete who has lots of chances to participate in the next Olympic Games. Some months before the Olympic Games the athlete suffering of a serious injury and your doctor suggesting the use of some forbidden steroids (doping substances) as the only way for fast recovery and to secure a winning result. The doctor tries to persuade you that would not be detected by an anti-doping control and the athlete would not have any health problems.



## Recommendations, interventions and educational programs against doping

Discuss with students recommendations, interventions and educational programs that could be used against doping. Use the information presented below to trigger discussions and reflections:

- The World AntiDoping Agency (WADA) was then founded in 1999, leading to the proposal of the World Anti-Doping Code (WADA Code) in 2003. Every year since then, the WADA has published the list of prohibited classes of substances and prohibited methods and most nations and sports-governing bodies adhere to these guidelines
- “Scarpino et al. (1990) - 21% of doctors believed that doping practices can enhance athletic performance; 20% of technicians (which included the doctor sample) believed that anabolic steroids were frequently used by top level athletes
- Greenway and Greenway (1997) 18% had either prescribed or been asked to prescribe anabolic steroids for performance enhancement or body image purposes
- Self-reports showed a consensus amongst medical practitioners that they have a role to play in doping preventions. Specifically, 92% and 89% (Laure et al., 2003; Woods & Moynihan, 2009) of GPs and 91% of retail pharmacists (Laure & Kriebitzsch-Lejeune, 2000) agreed with this proposition The Olympic oath shall be extended to coaches and other officials, and shall include the respect of integrity, ethics and fair play in sport. Educational and preventive campaigns will be intensified, focusing principally on youth, and athletes and their entourage. Complete transparency shall be assured in all activities to fight doping, except for preserving the confidentiality necessary to protect the fundamental rights of athletes. Partnership with the media shall be sought in anti-doping campaigns.

The University Anti-Doping Textbook: Anti-Doping Learning Hub,  
<http://www.antidopinglearninghub.org/sites/default/files>