

DOPING IN SPORTS – FEAR THE HEALTH EFFECTS

History

Doping originated long ago, since the beginning of time. In the early history-mid-century, warriors all around the world ate hearts, brains and livers of animals in the belief that they would become more intelligent, swifter and stronger. In pre-history, West Africa tribesmen consume cola nitida to improve performance and China commanders ingested Ma Huang for various stimulation purposes. In 5 BC and 3 BC, Greek athletes consumed special diets such as dried figs, wine, wet cheese, meat and a variety of mushrooms to improve performance like in their Olympic Games. In Roman era, stimulants mixed with alcohol were consumed by roman gladiators to recover faster from tiredness and injuries. In Ancient America, citizens in Peru and Mexico ate coca leaves for endurance in competitions. All these evidences are sufficient to prove that doping did not just begin but had its roots long time ever since the beginning of time. Source

Due to the increasing use of doping in many sport games, by the 1920s doping had become evident that drug restrictions were essential in 1963. France was the first country to enact an anti-doping legislation in response to the proliferation of drug usage in sports. Please refer below for the timeline of the history of doping.



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Target Audience

For many years, steroids have been used to improve or enhance performance of the athletes into giving them power and more endurance. Now in modern times, steroids are getting increasingly difficult to be detected using tests. Despite it being an illegal act, doping is still widespread and used by many athletes around the world. This has intrigued us to find why doping is so widespread, how do we do to stop this and how doping adversely affects our human body. Thus, we started working on this project.

Our Website, "Doping in Sports – Fear the health effects", aims to educate the public and give those sporting athletes in-depth information on doping in sports.

Our objectives are:

- Educate the public and give them sufficient knowledge on this topic to allow them to think wisely when it comes to sporting integrity
- Investigate past events of the athletes who doped
- Examine the diverse effects of doping on the human body
- Provide the many causes and temptations of doping to increase public awareness
- Provide suggestions as to how the doping cases can be resolved
- Suggest ways to prevent further doping cases from occurring



Our target audience for this project would mainly be the athletes, coaches and the public as well as anyone else who would be interested in learning more on this topic.

Definitions

Dictionary.com:

- *To administer a narcotic to: was doped up for the operation.*
- *To add a narcotic to: They doped his drink before robbing him.*
- *To administer a performance-enhancing substance to (an athlete).*
- *To subject (an athlete) to blood doping.*

The free Dictionary by Farlex

- *The use of a drug or blood product to improve athletic performance*

Merriam-Webster

- *The use of a substance (as an anabolic steroid or erythropoietin) or technique (as blood doping) to illegally improve athletic performance*

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Longman English Dictionary Online

- *The practice of using drugs to improve performance in a sport doping scandal/ban/test etc*

Cambridge Advanced Learner's Dictionary

- *To give a person or an animal drugs in order to make them perform better or worse in a competition*

Wiktionary

- *The use of drugs to improve athletic performance*

The On-line Medical Dictionary

- *The action of administering a drug to someone before a sports event (originally to a horse before a race), the substance thus administered.*

Our Definition

- *Doping refers to the use of performance-enhancing drugs that is not approved by the law or violates the World Anti-Doping Code*

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Anti-Doping Organisations

USADA - United States Anti-Doping Agency

"The U.S. Anti-Doping Agency (USADA) is the national anti-doping organization for the Olympic movement in the United States. The U.S. Congress recognized USADA as "the official anti-doping agency for Olympic, Pan American and Paralympic sport in the United States." We are dedicated to eliminating the practice of doping in sport, and to preserving the well being of sport and ensuring the health of athletes through research initiatives and educational programs." (taken from USADA website: <http://www.usantidoping.org/>)

This website's aim is to promote healthy sporting. The authorities organise campaigns to inform the public - including athletes - about the various side effects of doping and its consequences such as a long ban from games, spending a large amount of time in jail and its other health effects. These health effects not only occur in the body of the doper but also in the doper's future generation. Overall, this website provides a variety of resources from which viewers can gain in depth knowledge about the issue of doping.

World Anti-Doping Agency

"The World Anti-Doping Agency (WADA) is the international independent organization created in 1999 to promote, coordinate, and monitor the fight against doping in sport in all its forms. Composed and funded equally by the sports movement and governments of the world, WADA coordinated the development and implementation of the World Anti-Doping Code (Code), the document harmonizing anti-doping policies in all sports and all countries." (taken from WADA website: <http://www.wada-ama.org/en/>)

This website's main focus is about the outreach of anti-doping movement around the world and the different types of programmes that are used for anti-doping education. The website reaches to a large audience as the athletes can view information on doping while younger people can take part in a quiz to test their knowledge. The website also provides the the Anti-doping code as well as different languages so as to accommodate different viewers.

International Association of Athletics Federation

"The International Athletic Foundation's (IAAF) primary mission is to charitably assist the world governing body for track and field athletics - the International Association of Athletics Federations - and its affiliated national governing bodies in perpetuating the development and promotion of athletics world-wide.

Through its support of a variety of programmes and projects including educational, scientific, technical, promotional and social activities, the Foundation strives to aid athletes, administrators, coaches, national athletics federations and others to practice all forms of athletics in the best of conditions." (taken from IAAF website: <http://www.iaaf.org/antidoping/news/index.html>)

Although the organisation mentions about anti-doping, this website does not focus much on it as it concentrates much more on other type of information such as competition details, statistics, news and information on athletes. However, the anti-doping of the website section has many rules, law codes and many other valuable details for all athletes to abide by when taking part in sporting competitions. Furthermore, it provides information such as doping control statistics and the sanctioned athletes for the enlightenment of its audience.

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Forms of Doping

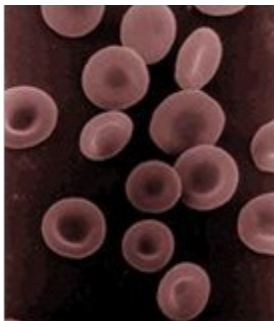
Gene Doping



It is the manipulation of cells or genes to enhance the body's sporting performance. Modifying genes enables faster reaction, increase in physical strength etc. Examples of gene doping are: changing of the cell growth stimulating proteins, proliferating muscle capacity and increasing blood supply in the body. Genes can be injected into muscles to prevent muscle-wasting disorder and this "camouflages" with the other human genes thus making gene doping almost impossible to detect.

Gene doping began in the year 2001 when the International Olympic Committee Medical Commission came together to discuss the adverse effects of gene therapy on sports. This action was immediately followed by the World Anti Doping Agency in 2002.

Blood Doping



It is the act of increasing the number of red blood cells (haemoglobin) in the body with circulation to enhance the athlete's performance by increasing aerobic capacity.

Blood doping detection will be to search for any unnatural huge change of the number of RBCs (RED BLOOD CELLS). A huge change will determine whether blood doping has or has not occurred. Another way is to test the urine and blood of athletes although it may be unreliable as athletes usually deny having doped with blood.

Temptations

According to Nancy Cullen, a sports psychology consultant for the University, temptation to use steroids and other performance-enhancing drugs simply comes down to the rigors and pressure of elite competition and the desire to win. There are a few temptations that causes the athletes to dope, they are: (1) Athletes dope when the drug test system is easy to avoid detection, (2) when there are a lot of competitors taking part in the event, (3) when there is an enormous amount of prizes and (4) when the drug has not much effect on the athlete's bodies.

- When drug system is easy to avoid, athletes have a tendency to dope as they will think they even if they dope, there would still be a very high percentage that they get away with it and win those marvelous prizes and huge sums of money.
- Furthermore, when there are many competitors taking part in an event, athletes also tend to dope as many doping tests would be conducted and in order to save time, authorities would usually do a haphazard job of it. This encourages the athletes to dope too.

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- This reason can be quite obvious. The number and quality of prizes such as an expensive Rolls Royce for example would act as a great incentive for athletes to dope. They think they it is very worth it to risk their lives for such a huge amount of money.
- When drugs have no effect on the athletes, athletes do not need to worry about the health effects that it may have on their bodies. This will also encourage them to dope as they have nothing to lose or get hurt by doping and if they are lucky, they may even win themselves some good prizes to bring back home.

Pressure to Dope

There is also a pressure to dope as athletes believe that everyone is doing it and in order for them to be in the top 10 positions, doping inevitably comes into the picture.

Peer Pressure

Due to peer pressure, athletes would be afraid of being called a coward or goodie-two-shoes by their friends and will try to break the laws and rules enforced by the sports organizers in order to show to their friends that they are very brave and cool. This usually leads to the athletes doping in the sports events.

Family problems

Another example would be the athletes' family problems. Family problems may include fighting and shouting between parents, physical abuse and low family income. Violence in the family will result in the children having a bad influence or them unable to receive enough love and care from their parents and thus will do anything in order to attract their parents' attention. These problems may fuel the athletes to dope in sports events to ensure that they secure a \$2000 for their family to buy daily necessities and better improve family lives.

Debts

Debts, I can say, would be the most common cause of doping for almost more than 40% of all the athletes. It is like a never-ending bottomless pit of doom that adults usually fall in and never come back out, but sometimes often rarely, athletes manage to get themselves back on earth. Athletes usually get themselves into huge debts due to too much gambling. After that, they try to resolve this problem by borrowing money from loan sharks but little do they know that it actually adds on to their problems rather than solve it. Loan sharks start to threaten them and they have to resort to doping to claim huge sums of money in order to repay their gigantic debts.

Health Effects

Mental Effects

Aggression and anxiety

Consumption of too many drugs will lead to aggression and anxiety. For females especially, they will seem to develop more male characteristics. For males, too much aggression may lead to the murdering or doing illegal things to satisfy or relieve the surge of immense anger. Anxiety too also plays a part by making the athletes paranoid over small and trivial matters.

Less in control of their aggressions than they used to be.

Psychological disturbances

Athletes who are doping or used to dope have high risks of getting psychological disturbances such as sharp headaches.

Stimulant doping drugs may lead to severe migraines in the athlete. This will affect the athlete's performance in their event, totally opposite of what the athlete really wants – to improve focus and strength so as to accomplish their goal.

Sometimes, they may also feel very confused and unable to think clearly.

Other effects include mania, withdrawal (become anti-social) and mood swings. Depression may also occur in several cases. Some dopers also become very dependent on others. The doper's personality may also change significantly and drugs are usually the direct cause of it. A doper may also tend to tremble more often.

Emotional Effects

Unusual patterns of behavior

Drugs may cause an athlete to suffer an emotional breakdown. Perhaps, this may even result in depression or in the worst case scenario – committing suicide. This may seem very extreme to us but athletes do use this method as they find they are too depressed and by dying, will can can resolve all their problems.

Mental Anorexia

This term means to be fearful of gaining weight, eating certain specific foods, be secretive and not wanting to talk about problems and last but not least over exercising. This mental block of the person will cause him to be unable to grow healthily and maintain a healthy lifestyle. Anorexia nervosa is also the direct opposite of bulimia nervosa, which means to stuff oneself with food so as to relieve stress.

Obsessive-Compulsive Disorder (OCD)

It is a type of mental illness that causes someone to have repeated unwanted thoughts. A very good example would be: fearing that everything you touch has germs and bacteria and thus you keep heading to the bathroom to wash your hands. This illness is very severe. It can take over

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your life, hurt your relationships and worst of all limit your abilities in whatever you do. Scientists have been researching on what causes OCD and they believe that not having a brain chemical called serotonin may be the problem.

Physical Effects

There are numerous physical effects of doping on the athletes. However, we will only be elaborating and giving in-depth analysis to only a few effects that we have chosen.

Addiction

This is what happens when athletes rely too much of doping drugs to win and clinch that gold medal. Their thirst for winning increases as time goes by and the athletes get stronger and harder to defeat. In order to fulfill their thirst, the athletes would take even stronger drugs in a higher quantity, thus inevitably resulting to addiction.

Unusual Male Characteristics in Females and vice versa

The resultant effect of taking too much anabolic agents into the human body may disrupt or even cause the entire body system to go haywire. This may include the development of breasts and the hardening of testicles for the males and development of facial hair and increased aggression for the females. These effects have truly devastating effects on the human body as you can see.

Thickening of the blood

Drugs like diuretics can cause the blood to thicken in the blood vessels of the human body. These thickening and slowing down the blood flow inside the body may lead to disastrous effects. Decreased blood flow may lead to strokes, heart attacks or to the worst extent, death.

Headaches

Stimulant doping drugs may lead to severe migraines in the athlete. This will affect the athlete's performance in their event, totally opposite of what the athlete really wants – to improve focus and strength so as to accomplish their goal.

Effects on Future Generation

“An athlete's doping past may well come back to haunt on his or her children.” - playthegame magazine 2008 article written by Kristen Sparre. So what exactly can doping do to an athlete's child? We will touch on 2 main points—higher chances of miscarriages and sicknesses like allergies and skin problems.

Miscarriages

In an interview carried out by Dr. Spitzer, he found out that having children turned out to be a very big problem for the former athletes who used to dope. Among the athletes interviewed, 15 babies were lost during pregnancy and 3 were still unborn. It was later found that the risk of miscarriages and stillborn was 32 times higher than the average population in Germany. This shows how drugs could affect the chances of getting a child and such aftereffects cannot be removed once it has been done.

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Child Handicaps

Among the 69 children of the doping athletes who survived, many struggle with various physical handicaps such as skin diseases, asthma, allergies, crippled arms, legs, feet and many had metabolic problems. It was also found out that children whose mother used to dope suffer more handicaps than father who used to dope even though if either the father or the mother was a doper, the child would most probably have handicaps. With all these handicaps, imagine the lives of the children when they grow up unable to play outdoor sports and activities and who is the cause for all that. It is their parents responsible.

Case Studies

Michael Phelps



Type of Sportsperson: Swimmer

Achievements: 14 Olympic Gold Medals, 7 world records in swimming, athlete with the most number of medals in a single Olympic Games

Drug used: Drug commonly known as cannabis or marijuana (*Cannabis Sativa*)

Time banned: 3 months

How long had he been using the drugs: Not known but it is said to have taken place in November, 2008

Marion Jones



Type of Sportsperson: Track and Field Athlete

Achievements: 5 Summer Olympic medals in Sydney in 2000

Drug used: Anabolic steroid commonly known as "the clear" or THG, scientifically known as *Tetrahydrogestrinone*

Time banned: 2 years suspension from sports and 6 months in jail

How long had she been using the drugs: During her trainings before the Sydney 2000 Summer Olympics

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The eight ways and reasons to stop doping - Everyone can play their part

So how exactly do we stop this threat called doping? After a lot of research, and compilation, we have come out with 8 of what we consider the best methods to: (1) Stop and turn the tables on dopers, (2) Send a message to athletes that doping is illegal, (3) Educate the public about the harmful effects of doping, (4) How dopers can kick the habit

1. The United Nations Educational, Scientific and Cultural Organization (UNESCO) is fervently trying to educate athletes about the harmful effects of doping.
2. UNESCO is also recommending its countries to implement anti-doping trainings
3. According to Michael Ashenden, players who need medical help to finish a race should not participate in the first place.
4. In the book Doping, author Jason Porterfield suggest that athletes should not dope to set a good example to young people.
5. The best technology have to remove all outside influences, and ensure for quick and fair punishment.
6. A no tolerance front must be put up, and a strong force must be created to uphold it.
7. A survey must be conducted among athletes and coaches to ensure that they are aware of the punishment and negative effects of doping.
8. Publish an educational guidebook of young people to raise awareness of doping.

Summary

In a nutshell, doping is harmful be it to the human body or to our personal reputation. It can seriously harm the body in many unexpected ways and it can also input male features into females and vice versa. In the context of our own personal reputation, we will also lose the trust of the people who believe in us and most importantly, the society. All these effects will adversely affect us in one way or another and it is best to stay away from them by controlling ourselves from taking drugs in a sports event despite of the immeasurable thirst for victory. "WINNING ISN'T EVERYTHING, it's the only thing." This is the often repeated comment of a famous National Football League coach, the late Vince Lombardi. (Quoted from: <http://www.bookrags.com/researchtopics/drugs-and-sports-os/>).

This thirst for victory is usually the terrorizing factor that encourages the act of doping. Moreover, if winning is everything, then everyone will do anything to be able to win. However, coaches and trainers are sometimes are seen as the major obstacles to drug-free sports. They are usually the one who hands out drugs to the athletes. Therefore, athletes and coaches should also be educated.

The main reason for doping for almost 80% of all athletes is usually for... that's right, it's MONEY!! Athletes dope for many reasons ranging from family problems, peer pressure and debt problems. These reasons will instigate the athletes to dope in order to win those prizes for the benefit of themselves or their family. Therefore, in order to resolve the doping problem in the modern world, government should also play a part by educating the public or providing subsidies or special privileges for the poor and the needy so that they, the poor and the needy would not resort to underhand means of getting cash, almighty dollars, banknotes or chips.

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