



Doping In Sports: A Disaster

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Abstract: Doping in sports, a violation of rules not a new phenomenon but exists since the ancient period. Drugs taken to improve training and sporting results. Prize, money, fame, pressure from the coaches, parents and from themselves lead the Athletes toward a darkened future. WADA, the independent World Anti-Doping Agency taking all the necessary initiatives by implementing the Anti-Doping Code along with the kind cooperation of UNESCO, American Heart Association, American College of Cardiology, World Health Organization, INTERPOL, Federations and more than 140 Anti-Doping Agencies of the countries to control and overcome the use of Drugs in sport. Thousands of Athletes have been died whereas thousands are suffer with so many Cardiovascular and other Diseases. The study analyzed the doping in sports, history of Athletes used drugs and the harmful effects. The tendency, winning at any cost! Leads the Athletes tousing drugs. Consequently, the loss of life and the serious diseases are there. Doping has somewhat, became a societal norms and turned into a crises of idealism.

Doping in sports, now, became a disaster which not only makes full stop the Athlete's career but kills. Doping undermines not just fair play and health but attack the value & beauty of sport. Without the involvement of everyone including families, it's so hard to make the sports drug free.

Key Words: Doping, Violation of rules, Cardiovascular, Doping Code

INTRODUCTION



The Earth is so amazing and beautiful and the Humans beings are the best one due to their developing behavior. Competing is connatural to Humans. Whether in the World of Sports or other area of contemporary society, peoples are constantly seeking for means to improve their performance and want to do better than others. Now, the Humans want to get success in short cut and through the wrong and negative means. The highly strong and meaningful words such as honesty, patience and tolerance are not valuable now.

Yes, we are going to talk about the field of Sports where the modern youth who lead itself towards a darken life to earn a lot of money by ignoring the above cited valuable words through adopting the unlawful and illicit means. Youth are the future of this world but the modern youth are trying to make hollow not only itself, society and their Nation through the armor of Drugs but also polluted the natural activity.

Doping in sports is not a new thing but exists since the ancient period

The use of stimulants and strength-building substances in sport is held to date back as far as ancient Greece, performance-enhancing drugs are not unique to modern athletic competition. Mushrooms, plants and mixtures of wine and herbs were used by ancient Greek Olympic athletes and Roman gladiators competing in circus Maximus dating back to 776 BC. Various plants were used for their stimulant effects in speed and endurance events as well as to mask pain, allowing injured athletes to continue competing but it was during the 1920s that restrictions about drug use in sport were first thought necessary.

When we look in the past, we see that Homer also made clear the extent to which game and sports reflected a cultural ideal based on the complementarity of physical as well as intellectual excellence.

Every Athlete has the right to a level playing field, the fields on which he or she can compete with equal and succeed as champion because he was faster, she jumped higher. All things being equal, and each champion should be say, "I worked hard, I deserve this", on the merit of his or her own achievements rather than on the back of illegal substances. All Athletes should be able to go into the competition with the same advantages as his or her competitors. That will be the Olympic ideal for fair play. The health of Athlete and the reputation of the modern competitive sports are being challenged by the performance enhancing drugs. Sports have a powerful medium and governing body throughout the world recognize the contribution of sports to national identity. Through this study, it will try to understand and analyses the effect of doping and the initiatives taking by the anti-doping agencies.

What is Doping?

According to World Anti-Doping Agency (WADA) Doping is defined as the occurrence of one or more of the following anti-doping rule violation such as:

1. Presence of a prohibited substance in an athlete's sample.
2. Use or attempting, use of a prohibited substance or method.
3. Refusing to submit to sample collection after being notified.
4. Failure to file athlete whereabouts information & missed tests.
5. Tempering with any part of the doping control process.
6. Possession of a prohibited substances or method.
7. Trafficking a prohibited substances or method.
8. Administering or attempting to administer a prohibited substances or method to an athlete.
9. Complicity in an ADRV.
10. Prohibited association with sanctioned athlete support personnel.



ACCORDING TO UNESCO:

Doping refers to an athlete's use of prohibited drugs or method to improve training and sporting results.

ACCORDING TO AMERICAN MEDICAL SOCIETY:

Doping refers to the use of banned substances in competitive sports. Performance enhancing drugs is another term used to for drugs used by athletes to improve their athletics performance.

BLOOD DOPING:

Blood doping is the use of certain techniques or substances to increase the mass of Red Blood Cell and therefore, Hemoglobin in the body. This allows the body to transport more Oxygen to the muscles and so increase stamina and performance.



GENE DOPING:

The Transfer of Genes or Genetically modified Cell into an individual as a potential method for illicit enhancing athlete performance.



REVIEW OF STUDY

As early as 1400 BC, the Susruta of India advocated the ingestion of testis tissues to cure testicles. Many of the early stimulants were of plant origin. The legendary Berserkers of Norse mythology used bufotein to increase their fighting strength twelve fold. In the last 111rd. of the



nineteenth century, the use of stimulants among athletes was common place, and moreover, there was no attempt to conceal drug use with the possible exception of some trainers who guarded to proprietary interest in their own special doping recipes.

As early as 1865, a doping episode involving canal swimmer of Amsterdam was reported. The first fatality attributed to doping was reported in 1886, Arthur Linton, an English Cyclist, is said by some to have overdose on try-methyl. Thomas hick, the winner of the marathon of 1904 Olympics games, was administered strychnine and brandy several times during the race. The winner of 1908 Olympic games marathon was suspected to taking strychnine, although, he was later disqualified.

Some of the using samples taken from cyclist after the race during the Tokyo Olympic Games were actually blue in color due to the use of various drugs. During the 1968 OlympicGames held in Mexico City, athletes and coaches did not debate the morality of taking drugs. But in this Olympics Bill Toomey, gold medalist in the decathlon and winner of the amateur athletic union's prestigious Sullivan award admitted he used drugs to aid his performance at that Olympics.

Cycling play a central role in the explosion of stimulants use in sports after world war two. The initiation of systematic use of anabolic steroids in sports has been attributed to report of their use of successful Soviet weightlifting teams in the early 1950.

Schools and the colleges were also not save themselves by using the doping in 1960s. In 1960, Rome Olympics, Knud Jensen, 23 year old Denish Cyclist, collapsed during competition and died. Autopsy result revealed the presence of amphetamine. During the thirteenth leg of the 1967 Tour de France, English Cyclist Tom Simpson, 29, aged, collapsed and died. His autopsy showed high level of methamphetamine, avail of which had been found in pocket at the time of his death.

Test conducted on Belgian Cyclist in 1965, showed that 37 percent of professionals and 23 percent of amateur were using amphetamine, while report Italy showed that 46 percent of professionals Cyclists tested positive for doping. Swimmers, Runners and Cyclists used a wide assortment of drug to gain an edge over their opponents. The use of drugs to enhanceperformance has been a future of human competition since the beginning of recorded history. The goal of the user was to increase strength and overcome the fatigue. The ancient as well as the peoples of the medieval period indulged in organotherapy to cure diseases and to improve vitality and other aspect of performance.

International sporting federations were the first organization to ban the use of certain doping substances in 1928 with the international amateur athletic federation. The IOC spurred by the death of cyclist Knud Jensen in 1960 Rome Olympic games took a leadership role in anti-doping and harmonized a prohibition list of Olympic sports. After the Festina cycling scandal of 1998 and with concern of potential conflict of interest, it became evident that there was a need of an independent global anti-doping authority .

It was brought to the attention of the lay public during the 1976 summer Olympic games when several TV. Commentators suggested that the Finnish distance runners LarseViren, gold



medalist in the 5000 mtr. And 10000 mtr. Race used blood doping. Human growth hormones were described by a well-known sports physician as the fad anabolic drug of the Los Angeles Olympic games. Test at the 1984 Olympic Games also revealed that most of the athletes of pentathlon had used Beta blockers for anti-anxiety effects, although this was not in banned list at that time.

In the 1988 Seoul games, two gold medalist tested positive for Diuretics. Ben Johnson winner of 100 mtr.dash tested positive for anabolic steroids. It was the first drug scandal to rock the sport. The first systemic assessment of the incidents of amphetamine use in pro-Football, conducted in 1972, showed that over half of the members of the team sampled has used amphetamine.

Golf, a sport with clean image, has been under a cloud of doping for over thirty years. In Golf there is a constant battle against tension. IlonaSchoknecht was an Eastern German shot putter, winning gold at the 1980 Olympic Games. She was disqualified from a 1977 European competition for testing positive for anabolic steroids.

A study show that between 1068 Mexico to 2016 Rio Olympic games, there were almost 500 hundred sportsperson caught by using performance enhancing drugs. Between 1974 Tehran Asian games to 2014 Asian games, almost 40 sportspersons were selected positive by using drugs.

ANTI-DOPING AGENCIES

The fight against doping in sports, as we know, it today commenced by the creation of the International Olympic Committee after the death of Danish Cyclist during the Rome Olympic the year before. After a slow start, the fight got under way as from the early 1970s under the leadership of IOC. And of International association of Athletic Federation. Despite, due to the lack of understanding and weak support even from the sports communities, a series of measures were taken during the 1970s. During the 1990s, the anti-doping fight gained increasing support both inside and outside the sports communities. In order to harmonize, the variety of rules that had developed both in sports organizations and at the domestic level and to promote anti-doping activities.

WADA (World Anti-Doping Agency)

The World Anti-Doping Agency (WADA) is the International independent organization to promote, coordinate and monitor the fight against doping in sports in all its form. WADA coordinated the development and subsequent evolution of the World Anti-Doping Code. WADA is engaged in many key activities including scientific and social science research, education, enforcement and monitoring code implementation.

WADA has a mission where an Athlete can compete in a doping free sports environment.

The first challenge before WADA was to supervise the XXVII Olympic Games in Sydney.

WADA received half of its budget from the IOC. And other half coming from various National Governments.



WADA also accredits around 30 laboratories to perform the required scientific analyses of doping control.

WADA implements so many measures and programs to make the sports drug free. Such as:

ATHLETIC COMMITTEE

An Athletic committee is also there comprising the elite athletes of the world to represent the views rights of athletes worldwide while providing insight and oversight into the athlete's role and responsibilities, as they relate to anti-doping.

MEDIA ENGAGEMENT

WADA has a strategic communication planning with the Media. On average, WADA received 100-150 Media inquiries per month in 2015, with level spiking when high profile doping scandals erupted.

EDUCATIONAL PROGRAMS

Value based educational programs are implemented by the WADA as part of regular anti-doping activities.

WADA focus on the following points also, such as:

- Sports physician tool kit
- Anti-doping E-text book project
- Social science research package
- Education partnership group
- Independent observer programs
- Information and data management
- Outreach programs
- Athlete biological passport
- Collaboration and partnership with laboratories
- Partnership with the Pharmaceuticals companies
- Research based projects
- Intelligence and investigation with INTERPOL
- Science and medical

GENE DOPING THREAT

A Gene and Cell doping expert group in WADA given directions to the health, medical and research committee in relation to the threat of Gene doping by developing strategies to prevent and detect non-therapeutic manipulations of Gene protein in sports. More than 140 countries have their own Anti-Doping Agencies/Organizations affiliated to the WADA and works together to fight against doping to make doping free sports under the master supervision and the control of WADA.

WORLD ANTI-DOPING CODE



WADA has prepared and implemented some strict rules in the shape of Anti-Doping Code to make the sports drug free. It is mandatory to follow this code for each anti-doping agency worldwide. The code includes the following points strictly.

WORLD ANTI-DOPING CODE- 2015

The code is a document having aim the anti-doping regulations in all sports and countries. It embodies an annual list of prohibited substances and methods that sportspersons are not allowed to take the same. This code is adopted by more than 600 sports organizations including International Sports Federations, National Anti-Doping Organizations, International Olympic Committee and the International Paralympic committee. This code includes the following strict measures.

1. Presence of a prohibited substance or its metabolites or markers in an athlete's sample.
2. Use or attempted use by an athlete of a prohibited substance or prohibited method.
3. Refusing or failing without compelling justification to submit to sample collection after notification as authorized in applicable anti-doping rules, or otherwise evading sample collection.
4. Violation of applicable requirements regarding athlete availability for out-of-competition testing.
5. Tampering or attempted tampering with any part of doping control.
6. Possession of prohibited substances and prohibited methods.
7. Trafficking or attempted trafficking in any prohibited substance or prohibited method.
8. Administration or attempted administration
9. Complicity.
10. Prohibited Association.

DRUGS BANNED BY THE WADA (WORLD ANTI-DOPING AGENCY)

To make sure the drug free sports and fair play, WADA has issued a list of prohibited substances. Such as

1. Anabolic Agents
2. Peptide hormone, growth hormone factors related substances and Mimetic
3. Hormone and metabolic modules
4. Diuretics and masking Agents
5. Manipulation of blood and blood components
6. Chemical and physical manipulations
7. Gene doping
8. Stimulants
9. Narcotics
10. Cannabinoids
11. Glucocorticoids



12. Alcohol
13. Beta-Blockers

THERAPEUTIC USE OF EXEMPTIONS MADE BY WADA.

Athlete may have illness or conditions that require them to take particular medications. If the Medications an athlete is required to take to treat an illness or condition happen to fall under the prohibited list, a therapeutic use exemption may give that athlete the authorization to take the needed medicine.

CONFERENCES

So many following International Conferences and Meeting have been organized with the collaboration of World Anti-Doping Agency, UNESCO and World Health Organization to interact that how to control and overcome the doping in sports and how to save this Natural sport from the a kind of poison.

- Adoption of the UNESCO International Charter of Physical Education and Sports ,1978
- MINEPS II Moscow Declaration ,1988
- Adoption of the Council of Europe Anti-Doping Convention held on Nov.1989
- Adoption of the Lausanne Declaration on Doping in Sport during the First World on Feb.1999
- Conference on Doping organized by the IOC.
- MINEPS III in Punta del Este, Uruguay held on Nov.Dec.1999
- IOC establishes WADA on 10th.of Nov.1999
- Adoption of the Additional Protocol to the Council of Europe Anti-Doping held on sept.2002
- Adoption of the Copenhagen Declaration held on 3rd.of Jan. 2003
- UNESCO General Conference decides to develop an international convention to remove doping from sports on oct.2003
- World Anti-Doping Code enters into force held on 1 Jan.2004
- MINEPS IV in Athens, Greece considered the draft Convention and helped to Resolve a number of outstanding issues on Dec.2004
- Series of meetings and consultative process to produce a preliminary draft of the UNESCO Convention against Doping in Sport (over 95 countries represented) 2004-2005
- Adoption of the UNESCO International Convention against Doping in Sport on oct. 2005



- Memorandum of Understanding between UNESCO and WADA held on June 2006
- UNESCO Convention entered into force held on 1 Feb.2017
- First revision of the World Anti-Doping Code on 17 Nov.2007
- Creation of the Fund for the elimination of Doping in Sport ,voluntary fund, 2008
- Resolution 2CP/4.3 establishes the Fund's Approval Committee held on Oct. 2009
- Resolution 3CP/6.3 sets mandate for the Fund's Approval Committee
- Adoption of the Declaration of Berlin ,MINEPS V, on 30 May 2013
- Second revision of the World Anti-Doping Code held 15 Nov.2013
- Council of Europe Convention on the manipulation of Sports Competitions on 18 Sept.2014
- Revision of the Memorandum of Understanding between UNESCO and WADA held on 5 Nov.2015
- Declaration of the IOC Executive Board – 12 principles for a more robust and Independent global anti-doping system to protect clean athletes held on 16 March 2017
- Adoption of the Kazan Action Plan on 15 July 2017
- Launch of WADA's World Anti-Doping Code Compliance Monitoring Program , 2017

UNESCO

UNESCO (United Nations Educational, Scientific and Cultural Organization) and WADA(World Anti-Doping Agency) works together to promote fair play and clean sports through a strategy of international cooperation, education and capacity building programs. UNESCO is a funding agency as well, provides to WADA in the anti-doping mission.

WORLD HEALTH ORGANIZATION

WHO also is one of the supporting institutions and always play a vital role to make the games anti-doping through the organization of conferences and Meetings with the anti-doping agencies.

AMERICAN HEART ASSOCIATION & AMERICAN COLLEGE OF CARDIOLOGY

These two highly prestigious institutions issued a joint statement as, "Eligibility and disqualification recommendations for competitive athletes with so many cardiovascular abnormalities. Further they quoted that the use of performance enhancing drugs and substances or doping one of the most important and difficult challenge in contemporary sport.



Further, AHA & ACC stated that athletes of all ages and across all competitions level should be educated with guidance from physicians and relevant athletic organizations regarding the risk of illicit drugs. It includes threatening consequences such as sudden death with Cocaine use.

INTERPOL

Apart from so many great responsibilities and accountabilities, the world largest international Police organization with 192 countries members play a key role to fight against doping in sports also. This institution has a special cell named Drugs and sports.

According to INTERPOL, doping damage the integrity of sports and linked to other form of crime and corruption such as Match fixing, illegal gambling, bribery and money laundering. Its, now, became a wide public health issues the INTERPOL added. There was an agreement between WADA and INTERPOL to fight against doping with the cooperation of each other. WADA also support the INTERPOL's anti-doping activities and provide scientific expertise particularly when, it come to identifying a new doping substances.

ELITE ATHLETES WHO USED THE DRUGS

In January 2013, the retired American **Cyclist Lance Armstrong** admitted to doping in an interview with Oprah Winfrey and was stripped of his seven Tour de France wins and banned from sport for life.

Tyson Gay who once defeated Usain Bolt in July 2013 at Moscow world championship but tested positive for banned substance.

Shane Warne, tested positive for mod uretic during 2003 world cup.

Shoaib Akhtar, pacer, found guilty of using the steroid Nandrolone.

CARL LEWIS

The all-time greatest and the athlete of the century, Carl Lewis, has broken his silence on allegations that he was the beneficiary of a drug cover up admitted he had tested positive for banned substance but claiming he was just one of "hundreds" of Americans athletes who were allowed to escape ban. But, Lewis received only a warning after official ruled that his positive test due to "inadvertent" use.

Russians athletes in track and field were banned as a group from participating in the 2016 Rio Olympic Games.

At least a third of medals in the Olympic and world championships between 2001 to 2012 involved suspicious samples.

Maria Sharapova, tested positive and disqualified in 2016.

Morian Jones, gold medalist in 2000 Olympic Games, caught in 2008, tested positive and sentenced to six month in jail.



Hope Solo, two time gold medalist, world cup gold medalist as a goal keeper, fail in urine test just before the 2012 Olympic. Although, she was let off with a warning.

Florence Griffith joyner, was a sprinter and won three gold medals at 1988 Olympics, used steroids and died only at 39.

Martina hingis, in 2007, she tested positive for a metabolic of Cocaine during a urine test at Wimbledon and suspended for two years.

Tammy Thomas, a track cyclist tested positive for THG. A powerful anabolic steroid. Later banned for lifetime.

Crystal cox, sprinter and gold medalist in 4*400 mtr relay race in 2004 Olympics but banned due to detect positive in using anabolic steroid.

Kelli White, track and field player, who dominated at the IAAF world championship in 2003, but stripped for her medals after tested positive in using THG.

Anna Alminova, a Russian runner who became the 2009 European indoor champion in the 1500 mtr. But at 2010 IAAF world championship, tested positive and banned for three months.

CarinaDamm, Brazilian MMA. Fighter, tested positive for Nandrolona, a potent anabolic steroid and suspended for one year.

AndreeaReducan, won several medals since the 1990s, tested positive for Pseudoephedrine in 2000 OlympicGames.

Beverly McDonald, a sprinter, silver medalist in 2000 Olympic and get a gold in 2004 and 2010. But, went to full stop when she was implicated as a steroid user by the US.Anti-doping agency.

Michael Phelps

Eight-time Olympic gold medalist swimmer Michael Phelps has not only plunged into the water, but into drugs. In 2009, he lost his endorsement contract with Kellogg's after a photo emerged of him taking a hit of marijuana.

Dock Ellis

Known for keeping the San Diego Padres hitless one 1970 afternoon, pitcher Dock Ellis later admitted to having taken LSD earlier that day. He even thought he was pitching to Jimi Hendrix, who was prepared to hit the ball with his guitar.

Darryl Strawberry

MLB's four-time World Series champion Darryl Strawberry has tainted his resume with cocaine and alcohol use.

Diego Maradona

Midfielder soccer star Diego Maradona struggled with a twenty-year cocaine addiction, leading to three suspensions and multiple failed drug tests during his career.

Andre Agassi

Tennis star Andre Agassi, who failed an amphetamine drug test in 1997 and claimed his drug usage was the result of drinking a spiked soda, later revealed he had done crystal meth frequently during his career.

Josh Hamilton



MLB player Josh Hamilton's career was delayed and derailed for eight years as he struggled with drugs and alcohol. He began to cope in 2008, and postseason victories are now celebrated with ginger ale rather than champagne.

Ricky Williams

The NFL's Ricky Williams, infamous for his marijuana infatuation, has been busted four times in the past decade for violating substance abuse policy and has a stoner reputation.

Dwight Gooden

Looping curveball and powerful fastball pitcher Dwight Gooden was well known for his baseball career in the late 80s, but soon tested positive for cocaine use. He entered rehab in 1987 but later relapsed and was suspended from playing in the 1995 season.

Len Bias

Len Bias, a promising University of Maryland All-American basketball player who had just been drafted by the Boston Celtics, two days later died of a cocaine overdose.

Marcus Camby

Toronto Raptor Marcus Camby was drafted to the basketball team in 1996 and just one year later was arrested for marijuana possession.

Jennifer Capriati

Child tennis prodigy Jennifer Capriati made the mistake of shoplifting and smoking weed as a teenager and was arrested for marijuana possession. She has since made a comeback.

Allen Iverson

In 1997, Allen Iverson received a charge for marijuana possession and then turned to community service as a way out of drug abuse or addiction.

Thurman Thomas

Buffalo Bills player Thurman Thomas was arrested in 2004 at a hotel because guests smelled his marijuana.

Rob Van Dam

Rob Van Dam was suspected from the WWE for thirty days for marijuana and Vicodin possession.

Rasheed Wallace

Basketball player Rasheed Wallace was arrested at a traffic stop in 2002 for marijuana possession.

Nate Newton

Nate Newton made six Pro Bowls in NFL before being busted for marijuana, earning him two and a half years in a federal prison.

Jon Daly

Pro-golfer Jon Daly was a heavy drinker off the course. Despite that he had previously won two majors, he went six years without a professional victory as a result of his alcohol abuse.

Vin Baker

Basketball player Vin Baker was found to smell of alcohol at practice, which eventually led to his suspension.

Roy Tarpley



In 1995, the NBA permanently banned Roy Tarpley for his alcohol use. He had previously been expelled from the league for cocaine use.

Steve Howe

In 1992, MLB player Steve Howe became the league's first player to be banned for life due to drug use.

Todd Marinovich

Football player Todd Marinovich, struggled with a cocaine, alcohol, marijuana, amphetamines, and LSD, and eventually was thrown onto ESPN's "25 Biggest Sports Flops" list.

Tim Lincecum

San Francisco Giants member Tim Lincecum was stopped in 2009 for a routine traffic violation and admitted to marijuana possession.

Michael Irvin

Michael Irvin, who placed ninety-second on the NFL Network's "Top 100 Players of All-Time" list, was once busted for cocaine and marijuana possession.

Lawrence Taylor

One of the most feared players in NFL history, Lawrence Taylor admits to having struggled with drugs early on in his rookie season—"coke was the only bright spot in my future," he has said.

Leonard Little

Football player Leonard Little once spent three months in jail and served 1,000 hours of community service for running a stoplight and killing a woman in a car crash while intoxicated.

Bob Probert

Hockey's Bob Probert has been fighting substance abuse since 1989. He was banned by the NHL for some time and was caught smuggling cocaine between Canada and the United States.

Theo Fleury

Although, the smallest player on the ice, Theo Fleury was big on goals and big on drugs and alcohol. His last NHL stop was with the Chicago Blackhawks, who released him in 2003.

OBJECTIVE OF THE STUDY

To study the harmful effects of doping and the role of Anti-Doping Agencies & others organizations.

EFFECTS OF DOPING

Winning at any cost, it seems, includes so many harmful effects not only physically, psychologically but the huge loss of reputation and the economic loss as well.



EFFECT OF PROHIBITED SUBSTANCES AND METHODS:

Anabolic agents: Anabolic Androgenic Steroids (AAS)

These are the substances that have both anabolic and androgenic properties. 'Anabolic' means 'tissue building' and 'androgenic' means 'masculinizing'. The anabolic properties may affect accelerated growth of muscles and bones while the androgenic properties may affect development of male reproductive system and secondary male sexual characteristics such as hairiness and deep voice. The anabolic androgenic steroids can be derived both endogenously (natural) as well as exogenously (synthetic).

Side Effects of Anabolic Androgenic Steroids:

The side effects associated with anabolic androgenic steroids are extremely serious and are divided into general, male specific and female specific.

General Side Effects:

- Greasy skin and acne
- Infertility
- Hypertension
- Liver and kidney dysfunction
- Aggressive behavior
- Tumor

Male specific Effects:

- Breast development
- Testicular atrophy
- Diminished male hormone production
- Diminished sperm production
- Impotence
- Alopecia
- Prostate cancer

Female specific Effects:

- Male pattern hair growth and baldness
- Menstruation disturbances
- Decreased size of breast
- Deeper voice (hoarseness)
- .

Hormones and related substances



Peptide and glycoprotein hormones are natural substances that act as 'messengers' within the human body and triggers the production of other hormones endogenously like testosterone and corticosteroids. The synthetic drugs like hCG, hGH, ACTH and EPO are known as analogues having similar effects to peptide hormones. Erythropoietin (EPO) hormone increases the number of red cells in blood and is used by athletes in endurance performances. Human growth hormones (hGH) are used by athletes for muscular strength. Human chorionic gonadotropin (hCG) hormones are used by athletes to increase endogenous production of steroids specially to in an impression to improve the muscular strength

Side Effects of EPO:

- Increased viscosity of blood
- Hypertension
- Myocardial infarction
- Cerebral infarction
- Pulmonary embolism
- Convulsions

Side Effects of hGH:

- Acromegaly (overgrowth of limbs)
- Soft tissues swelling
- Abnormal growth of organs
- Arthropathies (joint disorders)
- Diabetes mellitus

Side Effects of hCG:

- Menstrual disorders
- Gynecomastia (breast development in males)

Side Effects of Insulin:

- Hypoglycemia
- Nausea
- Drowsiness
- Brain malfunctioning

Side Effects of ACTH:

- Insomnia
- Hypertension
- Diabetes mellitus
- Stomach ulcers
- Osteoporosis

Beta-2-Agonists

Beta-2-Agonists if taken into bloodstream are having anabolic effects and hence WADA prohibited the use of all Beta-2-Agonists by athletes with the exception of inhaled formoterol, salbutamol, salmeterol and terbutaline to treat and/or prevention of asthmatic athletes. An abbreviated therapeutic use exemption certificate is required for the use of inhaled Beta-2-Agonists.

Hormone Antagonists and Modulators

These substances may be illegally used by athletes to counteract undesirable side effects associated with anabolic steroid use such as gynecomastia.

Side Effects of Hormone Antagonists and Modulators

- Hot flushes
- Gastrointestinal disorders
- Fluid retention
- Venous thrombosis

Diuretics and other Masking Agents

Masking agents are substances that have the potential to impair the excretion of prohibited substances to conceal their presence in urine or other doping control samples or to increase hematological parameters.

Stimulants

Stimulants are substances, which have a direct stimulating effect on the central nervous system. The stimulant increases the excitation of brain and spinal cord, cardiac output and rate of metabolism. The stimulants that are widely used in sports are amphetamine, cocaine and ephedrine. WADA has forbidden the use of stimulants in sports

Side Effects of Stimulants:

Other potential harmful effects of stimulants are listed below:

- Loss of appetite
- Insomnia (loss of sleep)
- Euphoria
- Hallucinations (Psychosis)
- Trembling
- Restlessness, agitation, tenseness
- Hypertension
- Palpitation and heart rhythm disorders
- Hyperthermia (increased body temperature)

Narcotics



The narcotics prohibited in sports are those derived from morphine and its chemical and pharmacological analogues.

These substances act on central nervous system and reduce pain feeling. The use of narcotics causes a false sense of cure in an injured athlete that leads to ignorance of a potentially serious injury and risking further damage.

Side Effects of Narcotics:

- Addiction
- Loss of balance and coordination
- Nausea and dizziness
- Insomnia & depression
- Decreased heart rate

Cannabinoid

Cannabinoid is psychoactive chemical. Marijuana, hashish and hashish oil are derived from cannabis plant. Prolonged use of cannabinoid may result in loss of motivation, decreased concentration, impaired memory and learning disability, respiratory diseases such as lung cancer, throat cancer and chronic bronchitis.

Side Effects of Cannabinoid:

- Impaired balance and coordination
- Loss of concentration
- Increase in heart rate
- Increased appetite
- Drowsiness
- Hallucination

Glucocorticosteroids

Glucocorticosteroids are prohibited in-competition when administered orally, rectally, intravenously or intramuscularly. Administration of glucocorticosteroids through these routes requires therapeutic use exemption certificate (TUE). All other routes including anal, aural, dermatological, inhalation, intra articular, nasal and ophthalmological require athletes to follow abbreviated therapeutic use exemption certificate (ATUE).

Side Effects of Glucocorticosteroids:

- Fluid retention
- Hyperglycemia
- Systemic infections
- Musculoskeletal disorders

Alcohol

Alcohol is a central nervous system depressant which slows down the actions of the brain and body. Combining alcohol with other drugs can magnify the effects of alcohol or of the other drugs which can be dangerous in many circumstances.

Side Effects of Alcohol:

- Impaired judgment
- Loss of reflexes and muscular co-ordination
- Slurred speech
- Sleepiness and poor respiration

Beta Blockers

These drugs may be illegally used by athletes in precision sports requiring accuracy and steady limbs e.g. archery, shooting, modern pentathlon, luge, diving, bob sleigh, ski jumping and motor sports.

Side Effects of Beta Blockers:

- Hypotension
- Decreased heart rate

Enhancement of Oxygen transfer

Blood doping may be illegally used to increase red blood cells in an attempt to improve the oxygen carrying capacity in endurance events.

Side Effects of Blood Doping:

- Increased blood viscosity
- Clotting susceptibility
- Hypertension
- Vasoconstriction
- Kidney dysfunction
- Risk of cardiac arrest, brain stroke and pulmonary embolism

Chemical and physical manipulation

Chemical and physical manipulations including catheterization without medical justification and masking agents are prohibited methods and should not be used by athletes.

Side Effects of manipulations:

Cystitis (bladder infection) and other dysfunctions and disorders depending upon the type of manipulation.

Gene Doping

Gene doping is banned by WADA in sports.

THE LOSS OF LIFE



Apart from these physical and mental diseases or disorder, so many athletes have been lost their lives due to involved in Drugs. Most of the youth are failed to understand the philosophy of the beautiful life. By analysis the history of the following Athletes, we can easily imagine that which dangerous level the sport has reached now.

Here, we have the history of some of the elite athletes who lost their lives due to use doping in their career.

DerekBoogaard

NHL enforcer Derek Boogaard became addicted to prescription pain medication. A mix of oxycodone and alcohol led to his May 2011 death.

Len Bias

Len Bias, a promising University of Maryland All-American basketball player who had just been drafted by the Boston Celtics, two days later died of a cocaine overdose.

PelleLindebergh

Olympic goalie PelleLindebergh died by driving his car into a wall while drunk.

Don Rogers

Cleveland Browns safety Don Rogers died of cocaine poisoning less than a week before his wedding.

Tommy Simpson

A british cyclist who died on mount ventoux during the 1967 Tour de France while under the influence of amphetamine and alcohol. The impact of Simpson's death was extensive in part because, this was the first doping death to be televised.

Yves Mottin

In 1968, this cyclist died due to excessive use of amphetamine two days after winning a race.

Knud Jensen

In 1960, Rome Olympic, this 23 years old Dennish Cyclist collapsed during competition and died. Between 1987 to 1990, 20 young Belgian & Dutch Cyclists died due to blood doping. Between 1989 to 1992, seven young Swedish orienteering enthusiasts died mysteriously.

Florence Griffith

A sprinter and won three gold medals at 1988 Olympics used steroids and died only at 39. Moreover, we have mentioned that doping is extremely harmful not only physically, psychologically but here are the great loss of our reputation our dignity, our social status and of of course a big loss of finance as well. Such as:-

THREAT OF REPUTATION LOSS

Reputation is an essential and immanent feature of everyday life. In social context, reputation determines one's own trustworthiness and once undermine, it is hard to rehabilitate into society. In the ancient Olympics, the corrupt athletes were heavily punished by financial means.



Each of them had to pay for the construction of zones, which was placed directly as the entrance of the Olympic stadium. So the reputation is definitely disturbed by involving in the bad things especially when you are the role model just like the elite athletes. Followers hurt when the emotions broken by their role models.

ECONOMIC LOSS

Billions of Dollars are expended to implement the various programs and measures to control and overcome the drugs in sport by the World Anti-Doping Agency, UNESCO and all other countries' anti-doping agencies & other organizations. It seems wastage of money on one point of view because, this huge amount can be utilized in so many other necessary programs. Year by year, the budget of WADA and other anti-doping agencies are increasing but the cases of doping are increasing.

DISCUSSION

Analytically, if we discuss the facts and figures mentioned throughout this study, we see that doping in sports is not a new thing but exists since the ancient period and it always comes back with the advanced form and new means. Throughout the study, we see, it has now become a kind of poison which kills not only the athletes alone but their followers also. Because, an elite player is always the role model for the youth.

We see that thousands of athletes have been died whereas thousands are suffering with so many dangerous diseases by using drugs. If we analyze the study, doping is used almost in every sport. In ancient, it was in limited form but now, it exists in its peak form. Not only in the field of sport but thousands of deaths and serious diseases are there due to drugs in almost all societies.

Doping has somewhat become a societal norm and now, has turned into a crisis of idealism. Not a single athlete but the entire track and field team of Russia was banned from participating in the 2016 Rio Olympic Games. It was a great loss of dignity if these athletes think. The athletes who were known as legends in their event, now, due to using doping, have no respect and regard amongst the people.

The World Anti-Doping Agency with their supporting organizations and other institutions playing a vital role to make sure the drug-free play. WADA doing a great job through the collaboration with so many organizations like UNESCO, AHA, ACC, WHO and INTERPOL and with all other anti-doping agencies of the countries to overcome this serious problem. WADA implements so many necessary measures by organizing the world conferences, seminars and meetings against doping in sports. Drug, now, is used by not only at the senior level but the initial stage. That's why, now, youth has been addicted with drugs. We hereby suggest to implement all the necessary measures right from the initial level of competitions. It seems a little bit hard but impossible is nothing. It would be a great measuring tool to overcome this problem.

Doping creates not only the health-related issues including the physical and mental illness and disorder but it creates a huge loss of social reputation and the economical loss as well.



Presently, we see that the athlete once banned has no respect and value in society. The monetary punishment should be given to these kinds of athletes. Because, they have the tendency that they have earned a lot of money, so, their future will be fine even after banned from sports.

Physicians have also been involved in drug uses. Because, mostly, all the athletes are interact with them and follow their instructions as well, sometimes. So, physicians particularly sports physicians can play a vital role to stop the drug in sport.

Pharmaceutical companies should be checked and verified properly time to time and some of the accountabilities must be fixed over them. It would be a root level initiative.

Anti-doping code of WADA is a great document which make alert the athletes and to motivate them to take part in a drug free play.

Drug is kind of injusticewith those who play with spirit of sports and truthfulness.

A big query arise in our mind that, where the youth are moving? Now, we can understand that the most of the youth has only one Motto to earn only much money and medals. But at what cost?

Psychologically, if we analyses it, most of the youth follows the extrinsic theory of Motivation which lead to greediness, not the intrinsic theory of Motivation which always lead to internal satisfaction.

Health is wealth, honesty is the best policy, if there's life then there's world, these are not only the beautiful words by reading but are extremely meaningful as well. The Olympic Motto: Fastest, Highest and the Strongest has now been lost their real meanings and perhaps this Motto achieved, now, but not through the spirit of sports and truthfulness but through the cheating by using a kind of poison in the shape of drugs which not only kills but fixed a full stop for their career.

WHY DO PEOPLES USE DOPING?

Most athletes know that **doping is cheating**, however, some still take the risk.

Sometimes prizes, money or fame can cause people to make bad decisions. They are told that doping might give them a boost, provide a shortcut to long years of training or help them win. And they are prepared to risk their sporting careers and their health - they are prepared to win at all cost!

Others feel pressure from coaches, parents or themselves to be the best. They see doping as a way to meet these expectations.

Some athletes use drugs to overcome an injury. Trainers or coaches might say that drugs can make you forget about the pain or may help speed up recovery, but they often do not mention the health risks and that doping is cheating.

Whatever the reason, there is no excuse for doping.

SIGNIFICANCE OF STUDY

It has tried to examined the facts and figures and scientific evidences about the doping in sports, its harmful effects and the Agencies stands to control and overcome the use of drugs in

sports which has now, converted into an epidemic and disaster. Analytically, the researcher is very much confident that this study will definitely provide a feedback and others important information about the doping and its harmful effects, the strategically measures of anti-doping agencies to not only the athletes but to the educators, researchers, coaches/trainers and of course all others sporting institutions as well.

CONCLUSION

Doping undermines not just fair play and health but attack the values and beauty of sports. When athlete cheat by doping, they harm not only themselves but the sports, fellow athletes, communities and their Nation that always stood behind them, supporting them, motivating them and in same way, living through them.

In this way, we can say that the various doping agents including the most risky such as AAS, Stimulants and EPO, Thrombosis, stroke and cancer in males & females. We must take each and every step to stop this epidemic. All the anti-doping agencies, governments, supporting federations must take initiatives, right from the initial level of competitions and to fix the accountabilities on all the pharmaceutical companies. Sometimes, it seems that sports, now, become the competition of drugs not the glory of sports.

A doping chapter including the basics and necessary literature must be mandatory in all the educational institutions from where most of the youth are coming in sports. Series of seminars must be organized on doping where the expertise should be invited to motivate and aware the youth against the drug not only in the field of sports but in normal life.

Parents must take the responsibilities and to nourish their children through the healthy means. Because, families are the responsible in large measure in this regard. Alone, WADA and Government cannot do much without the cooperation of the communities, families. We all should come forward with a collective effort to overcome this problem.



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