



Research Paper

Drug Abuse in Sports: Types, Potential Side-Effects and Rehabilitation Program for Sportspersons

K. KALEEMULLA

Physical Education Director,

Anjuman Arts, Science, Commerce College and PG Center,
Bhatkal – 581320 Uttar Kannada, Karwar District, Karnataka.

Abstract:

Drug abuse occurs in all sports and at most levels of competition. Oftentimes, these drugs were combined and given to players as “cocktails”. Players who took them to cover up injuries now claim to be paying the consequences, reporting side effects like high blood pressure, chronic muscle problems, nerve damage, organ damage, kidney failure, and addiction. Athletic life may lead to drug abuse for a number of reasons, including for performance enhancement, to self-treat otherwise untreated mental illness, and to deal with stressors, such as pressure to perform, injuries, physical pain, and retirement from sport. Studies have proved that many nutritional supplements purchased through online and in retail stores are contaminated with banned steroids and stimulants. Doping goes back to ancient times, prior to the development of organized sports. Performance-enhancing drugs have continued to evolve, with “advances” in doping strategies driven by improved drug testing detection methods and advances in scientific research that can lead to the discovery and use of substances that may later be banned. Many sports organizations have come to ban the use of performance-enhancing drugs and have very strict consequences for people caught using them. There is variable evidence for the performance-enhancing effects and side effects of the various substances that are used for doping. Drug abuse in athletes should be addressed with preventive measures, education, motivational interviewing, and, when indicated, pharmacologic interventions. Narcotics are used to decrease pain while practicing or playing. Nicotine may enhance weight loss and improve attention.

Keywords: cocktails, drugs, substances, motivation, narcotics, risk

Received 11 August, 2022; Revised 24 August, 2022; Accepted 26 August, 2022 © The author(s) 2022. Published with open access at www.questjournals.org

I. Introduction

Doping, defined as use of drugs or other substances for performance improvement, has become an important subject in virtually every sports and has been discovered in athletes of all ages and at every level of sports competition. For rates of use of a variety of substances, whether doping agents or recreational substances, among different populations of athletes as reported in various recent research studies. Athletes, too, can fall prey to the temptation to turn to heroin after abusing painkillers. In recent years, there has been a lot of apprehension about the transition from painkiller abuse to heroin use and addiction. Studies have proven that many nutritional supplements purchased online and in retail stores are contaminated with banned steroids and stimulants. In the USA, the National Collegiate Athletic Association acknowledged that the number of student athletes testing positive for stimulant medications has increased three-fold in recent years. There has also been apprehension about rampant use of drugs in major league baseball in the European Countries. For instance, the number of athletes, especially at top levels of competition, reported to be using stimulant medications has markedly increased in recent years.

History of Drug Abuse in Sports

The belief that doping is only a recent phenomenon that has arisen solely from increasing financial rewards offered to modern day elite athletes is very much incorrect. In fact, doping is older than organized sports. Ancient Greek Olympic athletes dating back to the third century BC used various brandy and wine cocktails and ate intoxicating mushrooms and sesame seeds to enhance their performance in ancient sports like marathon, sword fighting, fist fighting, kick-boxing. Various plants and natural seeds were used to develop

speed and stamina, while others were taken to mask pain, allowing injured athletes to continue competing until they die or faint. Yet, even in ancient times, doping was considered dishonorable. For example, in ancient Rome, Mecepotomia and Greece, identified tricksters were sold into slavery market as a punishment.

The modern era of drug abuse dates back to the early 1900s, with the illegal drugging of racehorses in European Countries and even in Middle East Countries. Its use in the Olympics was first reported in 1904. Up until the 1920s, mixtures of drugs like heroin, cocaine, and caffeine were commonly used by higher level athletes. By 1930, use of Performance Enhance Drugs in the Tour de France, which was popular sports in France, was an accepted practice, and when the race changed to national teams that were to be paid by the organizers, the rule book distributed to riders by the organizing committees. They reminded them that drugs were not among items with which they would be provided. To avoid detection, various clubs and sportspersons have developed ever more complicated doping techniques. Over the past 150 years, no sport has had more high-profile doping allegations than cycling. Fortunately, few sports have been without athletes found to be doping.

Infamous doping practice cases in International Sports and Games

Some of the most famous athletes in the world have battled addiction. The infamous doping cases were as follows:

1. Cyclist Great Armstrong:

Lance Armstrong the great cyclist was accused by 11 of his former teammates for using drugs over 12 years. During this period, the cyclist had won 7 Tour de France titles and earned millions in sponsorships. The US anti-drug agency reported that, detailing Armstrong's charges, includes details about how his wife would wrap a drug called cortisone tablets in foil for his teammates.

2. Tennis Player Maria Sharapova

The famous tennis player and world's highest paid female athlete failed a drug test in 2016, after testing positive for drug called meldonium at the Australian Open Tennis Tournament. According to WADA, the drug can improve an athlete's performance and is a prohibited substance. In an interview, Sharapova said she had been taking the drug for 10 years because of her family history of diabetes and was unaware it was a banned substance. After failing her drug test, Sharapova lost major contract with Nike and other companies.

3. Long Distance Runner Rita Jeptoo

The Kenyan Long distance runner was forced to give up her Boston and Chicago Marathon title in 2014 after failing the doping test. Jeptoo used drug called EPO is a blood-boosting drug that can improve a runner's capacity to carry oxygen. But WADA did not agree her weakness towards her health. She was banned for lifetime.

4. Swimming Great Michael Phelps

Michael Phelps is a swimmer and 18-time Olympic gold medalist, most gold medal won by individual. He was suspended from swimming for 6 months by US Swimming Association. Phelps was accused of consuming of banned substance cocaine. After this, Phelps attended a 6-week inpatient rehabilitation program to focus on his alcohol abuse issues. Phelps was also in the news for leaked pictures where he appeared to be smoking marijuana from a pot.

5. Baseball Legend Darryl Strawberry

The baseball legend has had a long battle with alcohol and cocaine addiction but is now clean and restrained. He published a book about his experiences as a child with an alcoholic father, his anxiety, and his struggles with drug abuse. He also started a recovery center for people seeking treatment for addiction.

6. NBA Basketball Player Lamar Odom

The former NBA basketball player has talked openly about his serious drug obsession to cocaine and other substances. He was found unconscious in a Nevada brothel in 2015 and spent 4 days in a coma.

7. Football Great Diego Maradona

The soccer player infamous for the 'Hand of God' goal in the 1986 World Cup, tested positive for the banned stimulant drug called ephedrine. FIFA the international football association, also found four other banned substances in Maradona's test, including drugs called phenylpropanolamine, pseudo-ephedrine, non-pseudo-ephedrine, and methylephedrine. Maradona was banned from soccer for 15 months following the test results. Then, in 1991, Maradona was found with cocaine in his system in Italy and was suspended from play for another 15 months.

8. Hockey Player Derek Boogard

The hockey player battled a painkiller addiction for years and eventually passed away from an overdose in 2011 at the age of 28. Boogard mercurial hockey player was found dead in his apartment from an overdose of drugs called oxycodone and alcohol.

Artificial Energy or Performance-enhancing drugs used by athletes in recent days in Sports:

The artificial or the major Performance Enhance Drugs (PEDs) are as follows:

1. Drug Androgens:

Androgens are the common drug substance have been used by athletes in an attempt to increase the blood circulation. Normally this substance is used to increase muscle strength and body mass.

2. Growth Hormone Substance:

Growth hormone and growth factors are also banned by WADA. Research studies have proven that growth hormone is used to increase muscle mass and decrease fat tissue in the body. In both males and females, growth hormone was associated with significantly decreased fat mass, increased lean body mass, and improved sprint capacity. This help the athletes dominate over the game.

3. Stimulants:

Stimulants commonly include caffeine, cocaine. Research has shown that stimulants to improve stamina, increase physical performance, decrease feelings of fatigue, improve reaction time, increase alertness, and cause weight loss. Energy drinks now often include a variety of stimulants.

4. Nutritional supplements

Nutritional supplements include vitamins, minerals, herbs, extracts. Significantly, the purity of these substances cannot be guaranteed, such that they may contain banned substances without the athlete or manufacturer aware. Studies have proven that many nutritional supplements purchased online and in retail stores are adulterated with banned steroids and stimulants. While purchasing through online athletes has to very careful.

5. Methods to increase oxygen transport:

Substances athletes use to increase oxygen transport include blood transfusions. Athletes use products such as desferrioxamine, cobalt, and artificial oxygen carriers. This method increases sudden supplement of oxygen level in the blood thereby giving instant energy to perform effortlessly and certainly.

6. Recreational drugs:

Recreational drugs are the common found drugs normally used by the athletes. At the same time, this recreational drugs are found easily in all the shops. These drugs include, alcohol, cannabis, narcotics, and nicotine. WADA does not currently ban nicotine but bans cannabinoids and narcotics. Alcohol is banned in six sports during competition only. All of these substances may be used by athletes to reduce anxiety and stress.

7. Prescription Drugs:

Diuretics is a special drug and other masking agents may be used as doping agents. Diuretics can result in rapid weight loss such that they may be used for a performance advantage in sports with weight classes, such as wrestling and boxing.

Side-Effects of banned substances/drugs used by athletes in Sports

Unfortunately, given the high doses of these agents used by athletes, it is difficult to confirm such effects. potential side effects of various forms of doping.

Substances/drugs used and Potential Side Effects:

1. **Growth Hormones** and growth factors are used by the athletes regularly. Possible side effects are diabetes, mellitus, hypertension, increase in cardiovascular diseases.

2. **Stimulants** example like caffeine, cocaine. Over dose of stimulants leads to potential side effects are stroke, heat stroke, weight loss, headache, vomiting sensation, tremor, sleeplessness, increasing in aggressive behavior among the athletics.

3. **Methods to increase** oxygen support like blood transfusion: Side effects are Anemia, stroke, deep vein damage.

4. **Nutritional Supplements** like: Vitamins, Minerals, Herbs, Extracts, Metabolites etc are the nutritional supplements consumed by the athletes. The side effects of this supplements are obesity, persistent stomach ache, suffering kidney diseases.

5. **Recreational Drugs:** Recreational Drugs are Caffeine, Cocaine, Alcohol, Sedatives. Side effects are decreased concentration, increased anxiety, increased blood pressure, increase panic, reduced alertness, decreased coordination.

6. **Prescription Drugs:** dizziness, muscle cramps, rashes, reduced muscle mass/weakness, hypertension, weight gain, central obesity, and cataracts.

Anti-doping organizations drug testing in athletes and rules, regulations

Drug testing typically occurs only in organized, competitive sports. At the college level, organizations such as the National Collegiate Athletic Association and individual member institutions conduct standard drug testing programs and enforce penalties for positive tests.

World Anti-Doping Agency (WADA)

World Anti-Doping Agency (WADA) was established in the year 1999. It is headquartered in Montreal, Canada. It was set up as a foundation under the initiative of the International Olympic Committee (IOC) with the support and participation of intergovernmental organizations, governments, public authorities, and other

public and private bodies fighting doping in sport. WADA is responsible for the World Anti-Doping Code, adopted by more than 650 sports organizations, including international sports federations, national anti-doping organizations, the IOC, and the International Paralympic Committee. It aims to lead a collaborative worldwide movement for doping-free sports. Elite athletes competing at international and national levels are subject to standardized anti-doping guidelines under the auspices of WADA and related national organizations.

Treatment of affected athletes, including counselling and psychiatric support.

Treatment can be an extremely positive force in the life of an athlete suffering from drug abuse and addiction. Particularly among young athletes, combining cognitive behavioral therapy with education can be very successful.

If the athlete is ready to seek treatment, there are options including:

1. Detox: Depending on the length and severity of the athlete's dependence and/or addiction, athletesbody will likely need to detox from the toxic drugs. During detox, you will slowly taper off of substances to ensure that your body and health remain stable. You can detox in an in-patient or outpatient setting, depending on what is suitable for athletes.

2. Therapy: After completing detox, the athlete may enter an inpatient or outpatient setting for treatment. A large component of rehabilitation is therapy—either in a one-on-one setting with a counselor or in a group setting. Therapy will help the sportsmen understand the underlying reasons for your drug use and may help you work through issues related to body shape, nutrition, stress, anxiety, and various other factors.

3. Medications: Doctors who are specialized in sports medicine may prescribe certain drugs to help the sportsperson. The athletes may also prescribe medications to help with depression, headaches, and muscle/joint pains etc.

4. Aftercare: After the rehabilitation it is very important to note that athletes have to lead a drug-free life. They have to adopt certain principals not to repeat the same mistake of consuming the banned substances. stage in maintaining drug-free lifestyle. The sportsperson has to lead a peaceful life practice yoga and concentration exercise to have a stable life.

II. Conclusion and suggestions

Drug abuse in athletes is a significant problem that has many potential underlying causes. The drive to be the best in sport dates to ancient times, as does the use of performance-enhancing substances. With the ever-mounting pressures faced by athletes, it is not surprising that drug abuse by athletes exists across essentially all sports and age groups. If anyone is a coach, trainer, friend, parent, or fellow athlete, and if he or she suspect that someone close to him is struggling with addiction, you may be in a good position to help them seek treatment. Doing nothing or ignoring their problem will not help them, and silence only contributes to a worsening issue. Family members can be a powerful tool in getting an athlete the help they need, as the majority of young athletes say they talk to their family about their stress or mental health issues. If you are noticing changes in your child or close relative behavior and you are concerned about their wellbeing, you can take action by contacting their coach or athletic director.

Suggestions for those taking responsibility research and clinical work with athletes who has addicted to drugs:

1. If trainers become aware of an athlete using Performance Enhance Drugs, they should immediately educate the athlete about the potential side effects of continued use. Family persons and coaches should encourage stoppage of the abuse of banned substances.

2. More high-quality, prospective, separate cell has to setup in the medium and big towns and cities where advance machine and tests to be conducted on the sports persons.

3. Trainers, coaches, parents, and others physicians in the athlete entourage need to be trained in identifying the signs and symptoms of drug abuse, including changes in physical health and behaviors of the athletes. This helps to early detection of drug abuse.

References:

- [1]. Catlin DH, Murray TH. Performance-enhancing drugs, fair competition, and Olympic sport. *JAMA*. 1996;276:231–237. [PubMed] [Google Scholar].
- [2]. Fernandez MM, Hosey RG. Performance-enhancing drugs snare nonathletes, too. *J Fam Pract*. 2009;58:16–23. [PubMed] [Google Scholar]
- [3]. Metz JD, Small E, Levine SR, Gershel JC. Creatine use among young athletes. *Pediatrics*. 2001;108:421–425. [PubMed] [Google Scholar].
- [4]. Uvacek M, Nepusz T, Naughton DP, Mazanov J, Ranky MZ, Petroczi A. Self-admitted behavior and perceived use of performance-enhancing vs psychoactive drugs among competitive athletes. *Scand J Med Sci Sports*. 2011;21:224–234. [PubMed] [Google Scholar]

Drug Abuse in Sports: Types, Potential Side-Effects and Rehabilitation Program for Sportspersons

- [5]. National Institute on Drug Abuse, US Department of Health and Human Services Monitoring the future national survey on drug use, 1975–2003, volume II. College students and adults ages 19–25. [Accessed June 12, 2014]. Available from: http://www.monitoringthefuture.org/pubs/monographs/vol2_2003.pdf.
- [6]. Green GA, Uryasz FD, Petr TA, et al. NCAA study of substance abuse habits of college student-athletes. *Clin J Sports Med.* 2001;11:51–56. [PubMed] [Google Scholar].
- [7]. Kersey RD, Elliot DL, Goldberg L, et al. National Athletic Trainers' Association position statement: anabolic-androgenic steroids. *J Athl Train.* 2012;47:567–588. [PMC free article] [PubMed] [Google Scholar]