

## Drug abuse in Sports and Physical activity

Krishna Gopal Rai<sup>1</sup>, Surendra Kumar<sup>2</sup>

<sup>1,2</sup> Research Scholar, Department of Physical Education, Guru Ghasidas Vishwavidyalaya Bilaspur, Chhattisgarh, India

### Abstract

Simply stated, the use of performance-enhancing drugs in sports and in exercise constitutes “doping.” Doping is cheating, and it undermines the fundamental spirit of sports by eroding its integrity, image, and values. Although doping has long plagued elite sports, it has escalated to the point that most authorities think that few levels of sports are immune. Many athletes serve as wonderful, clean role models for children and adolescents, but high-profile athletes who cheat encourage the use of steroids, supplements, stimulants, and narcotics among young athletes. Despite progress in drug testing, challenges remain in addressing this important health and ethical issue. The reasons an athlete might choose to dope vary. Many physicians attempt to deter athletes from cheating by educating them about the physical, psychosocial, legal, and ethical consequences of drug use. However, some physicians rationalize that “supervising” doping behavior renders this practice safer, despite no supporting evidence. Physicians who aid and abet doping practices violate the Hippocratic Oath and the policies of most sports and exercise organizations. Considerations emerging from the congress that might be helpful for sports medicine and other concerned health care practitioners include the Urge your medical organization to take action if physicians and other health care practitioners are over treating “growth” deficiency or attention deficit hyperactivity disorder or are inappropriately prescribing testosterone and stimulants. Ask athletes in your medical practice to commit to seeking your advice on the use of dietary supplements or medication, noting that your advice will be documented in their records. Ask coaching and training staff to sign a similar agreement that they will not provide nutritional supplements or vitamin products to athletes or counsel their use without your consent. By engaging in some activities, physicians will be part of a collaborative effort to promote the opportunity for all children, adolescents, young athletes, and exercisers to participate and compete fairly in clean sports and athletic performance.

**Keywords:** sports, drug, doping, ethical, physical activity

### 1. Introduction

The World Anti-Doping Agency (WADA) has determined that the presence of a prohibited substance or its metabolites in an athlete's bodily specimen is not the only indication that the athlete or support personnel are violating antidoping rules. In addition to positive test results, WADA identifies the following actions as components of doping: <sup>[1]</sup> using or attempting to use a prohibited substance or method; <sup>[2]</sup> refusing, or failing without compelling justification, to submit a sample collection after notification, as authorized in applicable antidoping rules or otherwise evading the request for a sample collection; <sup>[3]</sup> violating requirements regarding athlete availability for out-of-competition testing, including failure to provide information on whereabouts and missed tests; <sup>[4]</sup> tampering or attempting to tamper with any part of the doping control process; <sup>[5]</sup> possessing prohibited substances and using prohibited methods; <sup>[6]</sup> trafficking in any prohibited substance or method; and <sup>[7]</sup> administering or attempting to administer a prohibited substance or method to any athlete or encouraging, aiding, and abetting any cover-up of other types of complicity involving an antidoping rule violation or attempted violation.

### The Risk of Drug Use during Physical Activities and Sports

When a person uses drugs, many changes occur in his body, both physically and psychologically. Some of these changes occur immediately, while others only happen over time. Every side effect of drug use has the potential to be severe,

but the physical effects can be especially dangerous. A person should therefore try to avoid combining drug use with any type of physical activity.

### Common Physical Effects of Drug Use

Physical exercise makes many of the body's systems work faster and harder, and drugs also interact with the body physically in several ways. The National Institute on Drug Abuse lists several common physical side effects of drug use, including:

- Change in appetite.
- Confusion.
- Dilated pupils.
- Distortions in perception.
- Dizziness.
- Dry mouth.
- Flushing of skin.
- Impaired coordination and balance.
- Increased energy and alertness.
- Increased heart rate, blood pressure and body temperature.
- Kidney damage.
- Liver disease, including cancer.
- Nausea.

Sport makes physical and mental demands on your body. Recreational drugs are also demanding in today's world. Knowingly or unknowingly it affects their mind and body. While performing sport one is very active and one's body

adapts to provide you with the support you need, such as increasing the rate the heart pumps blood and supplies oxygen to the entire muscles. One's brain works to maintain body temperature, coordinate one's movement, and make sure you are alert. The body is designed to coordinate itself to allow you to perform at your best. Mixing drugs and sport can disrupt one's game in many ways.

### Heart Rate

Stimulant drugs, such as cocaine, ecstasy and speed, increase your heart rate and put undue stress on your heart. Cocaine can cause heart attack and abnormal heart rhythm. When you use speed, the lack of blood to your heart can cause angina (severe chest pain). Depressants such as alcohol slow down your heart rate, meaning less oxygen-rich blood reaches your muscles

### Breathing

Depressant drugs such as cannabis, alcohol and opiates, slow down your breathing. Cannabis reduces the lung capacity, so it's harder to get the oxygen to the muscles which is involved in sport. Opiates, such as heroin and codeine, slow down your breathing and narrow your airways. This makes it harder to breathe and reduces one's breathing at a time when the body needs extra oxygen.

### Muscles

The last thing one experiences during sport is disruption of one's coordination and relaxes the muscles. Depressants such as cannabis reduce the motor activity so it's hard to coordinate the movements during sport. Alcohol is high in calories so one may start piling up the body weight. Stimulants increase one's movements so the athlete is more likely to injure himself during sport. Cocaine at higher doses can act as an anaesthetic so one can't feel pain and may play on after an injury, causing even more damage.

### Concentration

Depressants like cannabis, alcohol and opiates affect the athlete's alertness and concentration, so one would react slowly. Stimulants, such as cocaine, speed and ecstasy can make the athlete irritable and restless, making him less focused on the game.

### Senses

Hallucinogens like cannabis and magic mushrooms can play havoc with one's senses. They affect their sights and sounds, which could disrupt your performance.

### Pain

Some depressants, such as alcohol, cause mild anaesthesia or loss of feeling, so one may not notice when he or she is injured. This can lead to delays in getting rapid treatment and in recovery. It can also lead to further worsening of injured part.

### Brain & Behaviour

Stimulants, such as cocaine and speed, can keep the athlete awake, so you don't get the rest when needed and this can affect their performance. They also decrease their appetite when he should be replacing calories after using so much

energy. Side effects also include confusion, delirium and paranoia. At higher doses stimulants can cause one to become irritable and aggressive, they can also cause blood vessels in the brain to rupture leading to convulsions.

While the changes that a person experiences during physical exercise are usually healthy, the long term physical and mental side effects of drugs have the potential to be damaging and occasionally life-threatening. And when the effects of physical exercise and drug use are combined, the body can go into shock or shut down completely. If the person engages in especially high intensity physical activities, such as those that require high levels of cardiac fitness, he puts himself in danger of causing permanent damage to his body. Because of the many harmful side effects of using drugs while engaging in physical activities, it's best for a person to avoid mixing the two together whenever possible. When an athlete is discovered to be using a performance-enhancing drug during a sporting event, he may be penalized or even removed from the event. If he is a professional athlete, he also runs the risk of harming his entire career.

### Conclusion

On the base of above study we suggest that a brief sport-based screen and consultation tailored to adolescents' health habits, with and without parent materials, may potentially reduce alcohol and drug use, while increasing exercise frequency. Future studies should examine the efficacy and effectiveness of addressing sport, fitness, and other positive health images with health-risk behaviors such as alcohol and drug use in influencing the health habits of youth. In addition, the role of parent materials and contacts for enhancing preventive and health promotion interventions should be explored. Studies should determine what health, exercise, and sport professionals, in addition to nurses, might be used to administer sport-based interventions with equally positive results, to enhance the feasibility and dissemination of such interventions in the future.

Physical activity may offer an alternative or adjunct approach to reducing rates of alcohol and substance use that is associated with few adverse side effects, is easily accessible, and is potentially cost-effective. Through psychological, behavioural, and physiological mechanisms, physical activity may offer benefits in the prevention, reduction, and treatment of alcohol and substance use across the lifespan. Whilst physical activity is widely advocated as offering benefit, no systematic review exists of physical activity (in all forms) and its effects on all levels of alcohol and substance use across all ages to help inform policymakers, service providers, and commissioners.

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