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## EFFECT OF DRUGS ON HEALTH AND SPORTS PERFORMANCE

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### Abstract

Now a days use of Drugs is very common people are taking Drugs for pleasure, enjoyment and recreation, not knowing the ill effects of drugs, use of Drugs is very harmful for health and increase many health problems, these drugs gives only temporary relaxation, on the other hand drugs affects the health badly and destroy the good condition of Health so Individual/athlete should not use the drugs for any reason, especially for sports performance drugs improves physical performance through its effect on the body. 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 sports, using drugs to improve performance in sports may lead to an athlete being banned and may also harm their health, sporting authorities have banned many drugs and other substances, not just because they might give an athlete an unfair advantage but also because of the wider Health risks.

**Keywords** -: Drugs, Sports performance, Healthcare, Pleasure, Ill effects temporary relaxation

### Introduction

#### Meaning of Drugs

**Drugs:** Chemical Substances that excite a person-mentally or physically are called Drugs. An ergogenic aid is defined as something that improves physical work performance. A drug is any chemical agent that affects living matter. Used in the treatment of diseases, drugs may either be applied directly to a specific tissue or organ or be administered internally to effect the body systematically. When a drug enters the blood stream by absorption or direct injection it can affect tissues, and/or organs from the site of introduction.

Drugs are normally understood as substances given to ailing person in order to bring his recovery. These may sometime cause harm rather than good. What is one man's miracle drug may turn out to be another man's poison. Drugs take pleasurable feeling or used illicitly may prove fatal to the stability of internal environment.

It is defined as any substance or means that improves physical through its effects on the body.

#### Why Drugs are used by Individuals

1. **Unemployment** – There is hardly any scope of employment for youth. They see nothing but blankness and despair before them.
2. **Lack of vocational education** – The system of education does not ensure them any vocation in life and the degrees have lost their value and consequently, they face a vacuum so far as their future is concerned.
3. **Failure and frustration** – Failure and frustration drive them into dark wells of despair.
4. **Peer Group Pressure** - Youth succumb to peer group pressure in schools, colleges and universities. They feel secure and reassured in the company of their peer group and have temporary solace from the ills of life.

5. **Illegal Sale of drugs** – There is a mushroom growth of chemist shops which have become easy outlets of illegal sale of the drugs.
6. **Loss of physical labour** - Most of the people have lost their traditional love for physical labour. Manual work has been taken up by the migrant labour and there is mechanization in almost all the spheres of life.
7. **Mismatch of routine expenditure** – Many families have become rich by the sale of their ancestral immovable assets and enjoy all the luxuries of life. The members of the other party that have become asset-less indulge in anti-social activities and take the support of Drugs.
8. **Smuggling of drugs** – The smuggling of drugs (Smack and heroin) from across the border has made the situation worse in the border districts.
9. **NRI's Money** – NRI's money has also led to the change in the life styles of rural youth because they think this easy money is for drugs only.
10. **Responsibility of parents, teachers & society** - Parents do not devote enough time on their children due to certain reasons. The teachers also do not guide them properly about their future. The result is that they take the shelter of drugs and society does not accept them as good citizens.
11. **Illiteracy** – Uneducated youth do not know how to lead a good life. They think that drugs are the only status symbol.
12. **Poverty** – For a poor man drug are the only recreation activity. Generally, they take alcohol and tobacco to get over their fatigue.
13. **Preparation for the examination** – Students during their examination take drugs to keep themselves alert and awake for a longer period. The continuous use of drugs makes them habitual.

#### **Why Drugs are used by Sports Person/Athletes**

1. To attain honour- For excellence and improved performance they use drugs, because they do not want to exert and work hard, but want to become successful in a day or so to get the maximum reward and honour.
2. Physiologically they want to reduce fatigue.
3. Psychologically to get them 'up' for the event or competition.
4. To get strength card increase weight for their particular events.

#### **List of Selected Drugs Used by an Individual/Sportsman**

1. Alcohol
2. Tobacco Smoking
3. Amphetamines
4. Anabolic Steroids
5. Cocaine
6. Aspartics Acid Salt
7. Caffeine

#### **Alcohol**

Alcohol addiction is definitely on the rise all over the country today there is social sanctions in favor of alcohol consumption. Present day alcohol user is comparatively 10 to 15 year younger than the earlier users and has many more reasons or occasions to consume

alcohol. Hospitals are getting flooded with patients with alcohol related liver diseases which keeps on straining the already exhausted resources of the families and the society.

Alcohol is correctly classified a drug, due to its influence on central nervous system. Since some found decrease in performance and others found an improved performance but majority found no difference in performance. It would appear safe to conclude that alcohol had little, if any ergogenic properties and that it could be detrimental to optional performance if taken in sufficient quantity. However, the small amount of alcohol just prior to or during a contest is not clearly understood obviously alcohol intake to the point of intoxication would result in an erratic unpredictable performance.

#### **Continuous excessive intake of alcohol has the following effects on Human Being-**

Its habit forming, alcohol addict is never free from complications. And may develop phases of depression and excitement. Alcohol brings partial or complete loss of sensibility. Alcohol addict sure to develop number of physical ailments related to liver, brain, blood, heart, kidney and other vital ailments. Alcohol addict never tell the truth and deceive the family members and they suffer from attacks of unconsciousness and lead to loss of appetite. Alcohol affects the economy of family and society. Children of alcohol addicts are mentally upset. Alcohol addict complain of irritability and poor memory if taken in large quantity it affects the eyesight

and produce lack of coordination and judgement and it is the biggest cause of automobile accident. Alcohol is not conducive to reducing weight as it contains a very high number of calories.

#### **Tobacco Smoking**

Tobacco contains nicotine. It is eaten raw, smoked in a pipe or chewed, used in a cigarette, hookah and in other various ways. Smoking has been increasing all over the world ignoring its ill effects like cancer of lungs, respiratory infections, peptic ulcers etc. The main ingredients nicotine invigorates the nerves. An average cigarette contains 1.5 mg of nicotine causing nicotine concentration in the blood to reach 132 to 200 nanomol/litre. In case of moderate smoker only nicotine is responsible for side effects whereas in severe smokers both nicotine and carbon monoxide produce toxic effect. Hence a higher incident of cardiovascular diseases such as coronary damage and restricted circulation occurs in smokers it is well documented that the clotting of blood in the vessels called thrombus is three times more frequent in smokers.

In reference to sports performance the evidence is unclear. Some have found decreased performance while others have found improved performance and many found no difference in the performance. Smoking has a detrimental effect on sports performance. It may be wise to prohibit smoking by athletes.

#### **Amphetamines**

Amphetamines stimulate the central nervous system. It is most widely used drug by the athletes. It can be purchased only by prescription and is sold in drug stores under a variety of trade names, in tablet form. This drug causes increased blood pressure and heart rate, increase muscle tension, respiratory stimulation and elevated blood sugar. It has the ability to depress appetite, to reduce or abolish the sense of fatigue (especially when this has been brought about by lack of rest and sleep), and to increase the fatigued person's performance of tests calling for skill and concentration.

The primary purpose for athletes taking amphetamines is because it seems to get them "up" for their event or contest. That is, "Key" them up and make them mentally alert and ready for the event which is desirable for optimal performance. This drug prepares an athlete psychologically. This is mostly used by the runners and jumpers. The use of this powerful and dangerous drug as a solution for sleepiness or fatigue or to increase sports performance.

### **Anabolic steroids**

Anabolic steroids act upon the central nervous system. It is generally believed that 70 percent or more athletes are using these drugs. Legally this can only be purchased with a written prescription of a physician and generally sold in drug stores under a variety of trade names in a tablet form. Majority of the championship level athletes taking part in weight and strength-oriented events, used steroids at some time during training.

This is used to increase muscle mass and body weight. Anabolic steroids are mostly used by sprinters, throwers, body builders, weight lifter, tennis players, marathon runners and other long distance runners to gain strength and weight. Needless to say that these days you will hardly find an athlete on the international circuit who has not experimented with steroids at one time or another. It is just a chance that a few unlucky ones like Ben Johnson are caught. However gains through steroids are grossly over estimated by most body building athletes and sportsmen. Steroids at the most add only 10% towards the ultimate achievement. In men steroids tend to suppress the body's normal production of sex hormones. Females show great potential for increasing body musculature with steroids and have harmful side effects like voice change, menstrual irregularities.

**The drug should not be taken by healthy individuals for the sole purpose of gaining advantage in sports because its use in the long run produces harmful effects both in physiological and psychological terms to an individual.**

1. It affects the growth hormones of sportsmen.
  2. It causes liver disorders and the possibility of cancer.
  3. It develops secondary male characteristics in females.
  4. It causes impotency in the males.
  5. It decreases the Height and leads to cessation of long bone growth in the young boys.
  6. In females, the harmful side effects are like voice change, menstrual irregularities.
  7. If taken in high doses it produces premature bone union in adolescents leading to short limbs and in women prolonged use may result in profound emotional psychological changes.
  8. There is also a strong possibility of making the females more muscular.
  9. It also contracts the skeletal muscles.
  10. There is a tendency of high blood pressure and kidney damage, or kidney failure.
- Strict regulations have been established by International Olympic Committee and other governing and medical bodies to disqualify participants who are caught or known to use these dangerous drugs.

### **Cocaine**

This drug is a powerful stimulant of the brain, and if given as an intravenous injection it can produce as ecstatic sensation of both physical and mental power, with temporary disappearance of feeling of fatigue and hunger. A number of early long-distance athletes, particularly cyclists, are believed to have taken cocaine in the hopes of postponing fatigue and increasing endurance.

**It seems to be one of the few forms of dope that has positive effect on performance and in the laboratory, it can prolong endurance time in bicycle ergo meter test.**

1. It is a habit forming.
2. The body temperature is also increased.
3. It could contribute to heart illness.
4. It gives temporary disappearance of fatigue and hunger.

5. Muscle tone is also increases, leading to loss of skill in more complex tasks.

### **Aspartic Acid Salts**

Aspartic acid salts have been used in the treatment of fatigue. The major reason for their use involves the ability of the urea cycle to remove ammonia from the blood. It is generally known that blood ammonia levels are raised following physical exertion, and that increased blood ammonia is one of the causes for fatigue. The urea cycle is responsible for returning the elevated blood ammonia concentrations to its normal values. The decrease in blood ammonia would, in part prevent the onset of fatigue and perhaps improve physical performance.

### **Caffeine**

It is well known as one of the active drugs in coffee and tea. Small doses of pure compound stimulate the brain, giving a quickening of thought and a lessening of feelings fatigue and drowsiness. Larger doses can make the individual over excited and restless, with wandering of the attention and difficulty in sleeping. The heart becomes more irritable, and may show extra beats, It has also been suggested that caffeine increases the liability of an older person to heart attacks. In the athlete context there might be some advantage to the man performing boring, repetitive work such as distance cycling, but increase of excitation would have an adverse effect on most competitors in skilled events.

### **The effect of caffeine involves the long-term health risks**

1. Caffeine affects the blood vessels and the heart.
2. It increases the contractile strength of the heart muscles.
3. It may cause coronary heart disease.
4. Long term coffee drinker have intra vascular blood clotting and ulcers.

### **Commonly Abused Drug Used by Individuals/Sportsman**

1. **Marijuana-** derived from the Cannabis sativa plant, is the most commonly abused illegal drug. Marijuana is mostly a recreational drug. Although it does figure in this list, marijuana isn't seen as being comparable to other drugs on the list. However, it does figure in the list, for prolonged use can lead to depression and anxiety.
2. **MDMA-** Commonly referred to as ecstasy, MDMA is, once again, not a very harmful drug until a certain point. It is illegal in many countries and long term use can severely affect the central nervous system. MDMA is one of the most common party drugs that increases the feeling of intimacy and induces a sense of euphoria. An overdose can be disastrous, especially when combined with alcohol.
3. **Ketamine -** Ketamine comes next on the list of most harmful drugs in the world. It is linked with inducing paranoia even if consumed over short time periods. Hallucinations are a common phenomenon associated with ketamine.
4. **Crystal Meth** – The drug has massively gained popularity after the popular TV series Breaking Bad. Crystal Meth has wide ranging effects that severely affect the brain's functioning. If used frequently, hallucinations, memory loss and other effects follow.
5. **Cocaine** – A popular party drug, cocaine comes next on the list of most dangerous drugs. It is also one of the most addictive drugs in the world. It releases massive quantities of Dopamine, a feel good chemical released by the brain. Withdrawal

effects can be hard to take. The body, apart from reacting mentally, also reacts physically on withdrawal.

6. **Alcohol** – Alcohol known to cause the highest number of accident related deaths, alcohol is actually more dangerous than many other drugs on the list.
7. **Heroin** – Known as the queen of all drugs, heroin is the most harmful drug in the world. The amount of dopamine released in the brain while on heroin is about hundred times more than the amount released during orgasm. Lighter drugs like methamphetamine is administered to reduce the withdrawal effects from heroin. Many cases of death when on withdrawal have been reported. If used for long periods, the effects on the brain are irreversible.
8. **Tobacco** – Tobacco is the deadliest drug in the world as far as number of death is concerned. It is worse than marijuana and other recreational drugs. It also happens to be one of the largest sources of government revenue for many countries – probably why it hasn't been made illegal yet.

Tobacco addiction is a global epidemic that is ravaging the countries and regions that can least afford its toll of disability, disease, lost productivity and death. Currently, there are an estimated 1.3 Billion smokers in the world. The death toll from tobacco consumption is now 5 million people a year; if present consumption patterns continue. The number of deaths will nearly double, reaching close to 10 million by the year 2020.

### **Hazards of Drugs**

The health harms arising from licit and illicit substance use and misuse are wide-ranging and vary depending on the substance used and the pattern and context of their use, but it is well established that their use represents a major public health burden.

1. Loss of coordination and distortions in the sense of time, vision and hearing, sleepiness, reddening of the eyes.
2. Speed up heart rate and increase the risk of heart attack.
3. School performance is reduced through impaired memory and lessened ability to solve problems.
4. Damage of lungs, liver and cause coughing and wheezing.
5. Slurred speech, memory and comprehension loss and damage to blood vessels in the brain increase inability to grasp abstract thoughts.
6. Increase anxiety, muscle tension, sleep problem, depression.
7. Prolonged use causes permanent damage to the brain, affecting the person's judgement and thinking ability.
8. People become paranoid, angry, hostile and coming down under severe depression and sometime depression can get so intense it can drive the addict to suicide.
9. Decreased hunger and bring on weight loss.
10. Studies show that tobacco use leads to impotency.
11. Smokeless tobacco is a known cause of cancer; it causes oral and pancreatic cancer.



12. Smokeless tobacco use during pregnancy increase the risk for reeclampsia (i.e., a condition that may include high blood pressure, fluid retention, and swelling), premature birth, and low birth weight.
13. Smokeless tobacco is a known cause of cancer. In addition, the nicotine in smokeless tobacco may increase the risk for sudden death from a condition where the heart does not beat properly (ventricular arrhythmias).
14. Approximately 6 million people in world and 1 million people in India die because of tobacco consumption.
15. Tobacco consumption is the second leading cause of death and fourth leading cause of disease worldwide.

### **Conclusion**

Use of drugs by the Individual or by the sportsman is totally illegal. Most of that drugs are prone to many serious health problems. Drugs improves the sports performance but at the same time side effects are more, which weakens the body in every sense. Finally, Health deteriorates and sports carrier starts diminishing slowly and gradually. So, No one should use the drugs.

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