

A Critical Study of Tobacco and its effects on Health and the Performance in Sports

Shri Bhagwan

M. Phil., [Physical Education]

ABSTRACT: Tobacco usage in sport is a well documented and publicized occurrence. There are hardly a sportsperson who do not smoke. It is a bad habit and sign of poor health. There is hardly a corner in the world where people not smoke. It is a worldwide problem. The area of sports is also suffering from the tobacco. So taking all these things into consideration, the present study has been designed to investigate the bad effects of tobacco (smoking) on health as well as sports also.

INTRODUCTION

Any chemical substances that excite a person whether mentally or physically are known as drugs. Any chemical agents who affect the mental and physiological aspects of living body come under drugs. Drugs are commonly preferred to overcome illness, protection against infection disease so promote health. A drug can be administered directly or indirectly to any living body.

Note: any type of drugs must be intake, only when a specialist individual or doctors prescribed it.

It is often through that some special drugs like anabolic steroids, cocaine; caffeine etc. increase the performance in sports. This concept is completely baseless and having no existence in the culture of sports. Drugs may provide some advantages to sportsperson but that remains for very short duration. In fact that is just a psychological terms. The disadvantage or harms of the special drugs (doping era) are more and moreover it is always preferable not to disturb natural growth and processing of any living body.

Common drugs used in Indian society are listed below:

1. Tobacco
2. Alcohol
3. Cocaine
4. Caffeine
5. Steroids etc.

TABACCO

Tobacco is a plant that contains Nicotine. It is chewed, eaten raw and smoked through cigarette, bidi cigars and hukkah. Nicotine whether eaten or smoke is completely harmful. It is a habit forming drug. Many start taking it as adoption of fashion and style stunt only but slowly it become their habit. In addition to Nicotine, tobacco exist carbon monoxide, carbon dioxide, ammonia and pyridine, which are known as air pollutants also. A small quantity of nicotine if injected directly, a person may die. An Indian style cigarette contains about 1.5mg to 1.8 mg of Nicotine. Tobacco smoking is harmful and having serious consequences, (long term effects) that can be fatal. It having ill effects lay lungs concern, ulcers, clotting of blood in respects (thrombus) etc. the initial harm effects are quite apparent by the symptoms of Nausea, Giddiness, Vomiting, Headache, irritation in throat etc.¹

¹ Mandeep singh Nathial-**PHYSICAL EDUCATION & HEALTH**. Published by – Khel Sahitya Kendra, New Delhi (2009) I.S.B.N-81-7524-523-9 p.g. 170

MAJOR PRODUCER COUNTRIES

United States

In the United States, North Carolina is the largest producer of tobacco, with around 1,800 tobacco farms employing 30,000 workers yielding in 400 million pounds of the crop annually.²

China

At the peak of global tobacco production, there were 20 million rural Chinese households producing tobacco on 2.1 million hectares of land. While it is the major crop for millions of Chinese farmers, growing tobacco is not as profitable as cotton or sugar cane. This is because the Chinese government sets the market price. While this price is guaranteed, it's lower than the natural market price because of the lack of market risk. To further control tobacco in their borders, China founded the State Tobacco Monopoly Administration (STMA) in 1982. STMA controls tobacco production, marketing, imports, and exports; and contributed 1.3% to national income between 1982 and 2004.³



Brazil

In Brazil around 135,000 family farmers cite tobacco production as their main economic activity.[10] Tobacco has never exceeded 0.7% of the country's total cultivated area. In the southern regions of Brazil, Virginia and Amarelinho flue-cured tobacco as well as Burley and Dark (Galpão Comum) air-cured tobacco are produced. These types of tobacco are used for cigarettes. In the northeast, darker, air-cured and sun-cured tobaccos are grown. These types of tobacco are used for cigars, twists and dark-cigarettes. Brazil's government has made attempts to reduce the production of tobacco, but has not had a successful systematic anti-tobacco farming initiative. Brazil's government, however, provides small loans for family farms, including those that grow tobacco, through the Program Nacional de Fortalecimento da Agricultura Familiar (PRONAF).

India

India is the topmost tobacco-producing country in the world. Percentage of agriculture land is under tobacco cultivation. It is a cash crop and earns a lot of foreign exchange. So, in a way, its cultivation is encouraged. Then next production comes. The production of tobacco has increased fold and so its consumption. The consumption of tobacco is not only confined to tobacco producing countries but extend to every nook and corner of the globe. India has 96,865 registered tobacco farmers and many more that are not registered. Around 0.25% of India's cultivated land is used for tobacco production. Since 1947, the Indian government has supported growth in the tobacco industry. India has seven tobacco research centers that are located in Madras, Andhra Pradesh, Punjab, Bihar, Mysore, Bangalore, West Bengal, and Rajahmundry. Rajahmundry houses the core research institute. The government has set up a Central Tobacco Promotion Council, which works to increase exports of Indian tobacco. Guntur is also well known place for tobacco plantation.⁴

² "Just 13, and Working Risky 12-Hour Shifts in the Tobacco Fields". The New York Times. September 7, 2014. Retrieved

³ People's Republic of China. "State Tobacco Monopoly Administration <<http://www.gov.cn/english/2005-10/03/content_74295.htm>>.

⁴ Shoba, John and Shailesh Vaite. Tobacco and Poverty: Observations from India and Bangladesh. Canada, 2002.



FORM OF TOBACCO CONSUMPTION

Tobacco is consumed in various forms. From time immemorial, it is consumed either raw or mixed with lime. Many forms of tobacco with nice flavor and tests for oral consumption are available in the market. There are snuffs of various varieties. Some even rub tobacco on their teeth from olden times. It is used in Hukkas or pipes. Biries which is a form of cigarette is much common among the poor. Cigarette is the most common forms for the consumption of tobacco and it is of many varieties. Cigars are also used in the affluent. Tobacco is used in many different ways around the world, but the global predominance is the use of manufactured cigarettes, which account for 96% of total worldwide sales, and hence involves big business rather than small, local, rural enterprises.

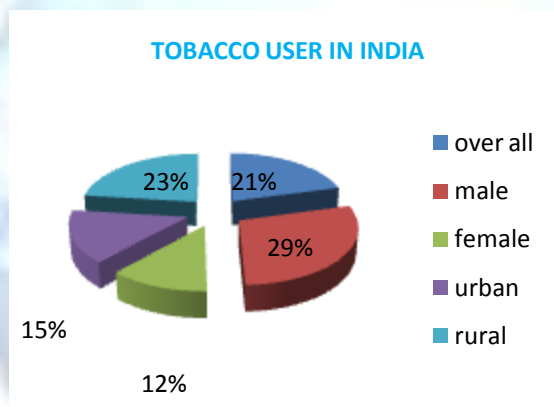


Figure 1: survey by Ministry of Health and Family Welfare (Government of India)

The next largest components are the smoking of bidis in South-East Asia, the chewing of tobacco in India, the smoking of kreteks in Indonesia, and the use of moist snuff, which originated in Sweden but is now becoming global. New forms of tobacco (and of its component nicotine) are constantly being invented, while older forms historically localized to specific regions of the world (such as the hookah and bidi) are becoming global. For instance, kreteks and moist snuff are currently being marketed to youth in many countries. These regional forms of tobacco sometimes gain footholds in new countries based on their exotic cachet, but to date they have not displaced manufactured cigarettes for a significant market share. Instead, they frequently serve as a gateway to addiction, luring youth and other fad smokers into lifelong dependence on nicotine. New forms of tobacco may not be covered by existing tobacco control legislation and are thus a challenge to countries seeking to reduce the epidemic (especially to reduce youth uptake).

HOW IT IS POPULAR

Consumption of tobacco is becoming more popular day by day. Industry play an important part. It is a highly gainful commercial proposition. So every day more and more tobacco products with fine smell and taste are put in the market for use either orally or with beetle. Cigarettes are also available from the crude type to that of the finer quality thousand of rupees are spent by these firms on publicity via-printed media, radio, television or other social functions. Naturally these effects the common men. Children adopt this habit just in fun other, because they consider it lore respectable and

fashionable, other because they find enjoyment as a past time, other because it quite the nerve and stimulate to action or to think clearly. It is also used extensively during war time, military conflict or whenever the individual is in conflict with himself or with his environment, emotional stress and strain.

In America, more than 50% of the male population and fairly high percentage of female population smoke cigarette and other countries follow suits. Nearly 80% of the world's one billion smokers live in low- and middle-income countries.

COMPOSITION

Tobacco contains a large number of chemical compounds. Some of these remains in the ashes of a burnt cigarette while others are changed during combustion and new compounds are formed. The smoke which is inhaled contain Nicotine, Tar, Carbon monoxide, arsenic and about 15 chemicals which experiment on animals are known to have caused cancer

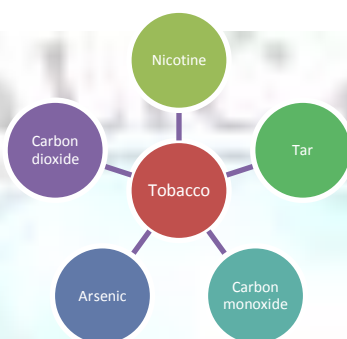


Figure 2 composition of Tobacco

Nicotine is the most harmful of all these. It is a powerful poison. It raises blood pressure, increase pulse rate and flow of saliva. After initial stimulation it depresses body function. Tar is also known to have caused cancer when applied to animals. Carbon dioxide is harmful for human health but Carbon monoxide is very poisonous. It can cause death. Similarly Arsenic is a strong poison and even in small quantity, it can caused death.⁵

TOBACCO USE IN SPORTS

Tobacco usage in sport is a well documented and publicized occurrence. Tobacco advertising has connected itself to sports both for the connotations of health that sports provide, as well as the marketing potential of famous athletes. Additionally, tobacco has played a role in the sport of baseball specifically, and has affected both the rules affecting players and fan alike. Agencies such as the CDC have used sports as platforms for tobacco prevention programs, specifically targeted at younger people.

Advertising

For many years, tobacco companies have played a monumental role in advertising within the sports industry. Major tobacco companies have employed the strategies of athletic endorsements, sponsorships of major athletic events, and creating powerful associations of tobacco and active lifestyles in order to advertise their products. The connection between sports and tobacco can be traced back to the origins of professional sports.[citation needed] Shortly after the National Baseball League's inception in 1876, trading cards with player's images emerged within cigarette packages.⁶ One of the oldest brands of chewing tobacco, Bull Durham, advertised on outfield fences in baseball parks in the United States South. Despite this long standing history, there have been many recent developments and changes in tobacco's relation to athletics. Currently, trends have shifted as athletes today are more likely to endorse tobacco prevention efforts as opposed to tobacco products.

Endorsements

From the 1920s to 1940s baseball furthered its relation with tobacco. Every major league team had a cigarette sponsor and baseball's greatest athletes such as Babe Ruth, Joe DiMaggio, and Ted Williams, all appeared in cigarette advertisements.

⁵ A Parkash. HEALTH EDUCATION. Published by –Khel Sahitya Kendra, New Delhi (2000) I.S.B.N- 81-7524-048-2 p.g. 16

⁶ [Tobacco in sport: an endless addiction?](#) Tob Control 2005;14:1-2

Lou Gehrig endorsed R. J. Reynolds' Camels, saying he could smoke as many as he pleased and creating the slogan that Camels "don't get your wind".

As tensions mounted in the 1950s, with smoking's correlation to lung cancer, the Commissioner of Baseball prohibited players from wearing their uniforms in cigarette advertisements. While baseball cracked down on endorsements, the National Football League not only permitted players to appear in tobacco advertisements, but also signed Philip Morris' Marlboro as its major television sponsor. Of these players, one of the most prominent was Frank Gifford. Gifford played for the New York Giants in the 1950s and 1960s and later became a famous sportscaster. In his prime, Gifford endorsed a wide range of products, including The American Tobacco Company's Lucky Strike cigarettes.

In 1964, the tobacco industry began to anticipate increased federal regulation and voluntarily adopted the Cigarette Advertising Code, stating it would not "depict as a smoker any person well known as being, or having been, an athlete...[or] any person participating in, or obviously having just participated in, physical activity requiring stamina or athletic conditioning beyond that of normal recreation". Under this code, athletes and celebrities were no longer allowed to give testimonials, but nonetheless the industry blatantly disregarded its own guidelines. In October 2009, Baisha, China's largest cigarette company, signed Liu Xiang, an Olympic gold medalist hurdler, to endorse its cigarettes in both print advertisements and televised commercials.[

Sponsorships

Traditionally, cigarette companies have had a strong relationship with NASCAR events. After tobacco companies were forced to pull out of advertising in NASCAR, Nicorette has entered the NASCAR arena and signed a three year contract as part of an extension by GlaxoSmithKline, then the owner of Goody's Headache Powders, a long-time NASCAR sponsor. NASCAR's deal with Nicorette is only one year, Winston stepped down after 33 years as title sponsor of NASCAR's championship series and was replaced by Nextel. Nicorette sees a great market as NASCAR fans are 28% more likely to smoke than other adults. The firm also reported that they smoke 18% more cigarettes than other adults.[4] Since Nicorette has signed on as a sponsor, there has been a substantial decrease in the amount of NASCAR employees who smoke. Nicorette began its quit smoking program in 2004, providing NASCAR members with training sessions and one-on-one counseling. Additionally, Nicorette has counseled about 250,000 race fans on how to quit smoking since 2005.

From 1986 to 2009 the Professional Rodeo Cowboys Association was sponsored by the U.S. Smokeless Tobacco Company. The association severed its ties with the tobacco industry in 2009, allowing rodeo culture to return to its status before tobacco's involvement in 1986. "Cowboy Ted" Hallisey, a prominent print and broadcast journalist for rodeo events stated "Without big tobacco, rodeos will move into mainstream sports because they will be more comfortable for children and families to attend".⁷

Advertising strategies

In the early 1900s the tobacco industry sought to pair smoking with active and healthy lifestyles. Through its advertisements, the tobacco industry created associations between smoking and recreational and athletic activities like tennis, golf, swimming, football, track and field, skiing, and ice skating. These activities were often depicted in cigarette advertising as activities demanding a cigarette for enhanced performance and even good health. American Tobacco's Lucky Strikes ran a successful advertising campaign that urged men and women "To keep a slender figure, reach for a Lucky instead of a sweet." Brandt, Allan (2007). *The Cigarette Century*. Basic Books. p. 78. ISBN 0-465-07047-7.

HEALTH RISK

The health effects of smoking are the circumstances, mechanisms, and factors of tobacco consumption on human health. Epidemiological research has been focused primarily on cigarette tobacco smoking, which has been studied more extensively than any other form of consumption.⁸

⁷ "Professional Rodeo Cowboys Association Ends Tobacco Sponsorship | Tobacco Facts". Tobacco Facts. 2009-12-02. Retrieved 2010-07-10.

⁸ "Prevalence of current tobacco use among adults aged=15 years (percentage)". World Health Organization. Retrieved 2009-01-02.



Figure 1 smoking can damage every part of the body

The World Health Organization (WHO) estimates that tobacco caused 5.4 million deaths in 2004 and 100 million deaths over the course of the 20th century. Similarly, the United States Centers for Disease Control and Prevention describes tobacco use as "the single most important preventable risk to human health in developed countries and an important cause of premature death worldwide"⁹

Health effects

Tobacco use most commonly leads to diseases affecting the heart and lungs and will most commonly affect areas such as hands or feet with first signs of smoking related health issues showing up as numbness, with smoking being a major risk factor for heart attacks, Chronic Obstructive Pulmonary Disease (COPD), emphysema, and cancer, particularly lung cancer, cancers of the larynx and mouth, and pancreatic cancer. Overall life expectancy is also reduced in long term smokers, with estimates ranging from 10 to 17 years fewer than nonsmokers. About one half of long term male smokers will die of illness due to smoking. The association of smoking with lung cancer is strongest, both in the public perception and etiologically. Among male smokers, the lifetime risk of developing lung cancer is 17.2%; among female smokers, the risk is 11.6%. This risk is significantly lower in nonsmokers: 1.3% in men and 1.4% in women. If one looks at men who continue to smoke tobacco, the risk increases to one in six. Historically, lung cancer was considered to be a rare disease prior to World War I and was perceived as something most physicians would never see during their career. With the postwar rise in popularity of cigarette smoking came a virtual epidemic of lung cancer.

A person's increased risk of contracting disease is directly proportional to the length of time that a person continues to smoke as well as the amount smoked. However, if someone stops smoking, then these chances gradually decrease as the damage to their body is repaired. A year after quitting, the risk of contracting heart disease is half that of a continuing smoker. The health risks of smoking are not uniform across all smokers. Risks vary according to amount of tobacco smoked, with those who smoke more at greater risk. Smoking so-called "light" cigarettes does not reduce the risk.¹⁰

Mortality

Male and female smokers lose an average of 13.2 and 14.5 years of life, respectively. Each cigarette that is smoked is estimated to shorten life by an average of 11 minutes. According to the results of a 50 year study of 34,486 male British doctors, at least half of all lifelong smokers die earlier as a result of smoking. Smokers are three times as likely to die before the age of 60 or 70 unlike non-smokers. In the United States, cigarette smoking and exposure to tobacco smoke accounts for roughly one in five, or at least 443,000 premature deaths annually. To put this into context, ABC's Peter Jennings famously reported that in the US alone, tobacco kills the equivalent of three jumbo jets full of people crashing every day, with no survivors. On a worldwide basis, this equates to a single jumbo jet every hour.¹¹

⁹ World Health Organization (2008). The Global Burden of Disease (2004 Update ed.). Geneva: World Health Organization. ISBN 92-4-156371-0.

¹⁰ National Cancer Institute. Retrieved 8 September 2014

¹¹ "21st Century Could See a Billion Tobacco Victims". Tobacco News Flash (Tobacco-Free Missouri Coalition) 3 (12): 1. 2007. Retrieved 2012-05-06.

Cancer

The primary risks of tobacco usage include many forms of cancer, particularly lung cancer, kidney cancer, cancer of the larynx and head and neck, bladder cancer, cancer of the esophagus, cancer of the pancreas and stomach cancer. Studies have established a relationship between tobacco smoke, including secondhand smoke, and cervical cancer in women. There is some evidence suggesting a small increased risk of myeloid leukaemia, squamous cell sinonasal cancer, liver cancer, colorectal cancer, cancers of the gallbladder, the adrenal gland, the small intestine, and various childhood cancers. The possible connection between breast cancer and tobacco is still uncertain. The risk of dying from lung cancer before age 85 is 22.1% for a male smoker and 11.9% for a female smoker, in the absence of competing causes of death. The corresponding estimates for lifelong nonsmokers are a 1.1% probability of dying from lung cancer before age 85 for a man of European descent, and a 0.8% probability for a woman.

Pulmonary

Since establishing causation through experimental trials was not possible due to ethical restrictions, a lengthy study was conducted in order to establish the strong association necessary to allow for legislative action against tobacco consumption.[citation needed]

In smoking, long term exposure to compounds found in the smoke (e.g., carbon monoxide and cyanide) are believed to be responsible for pulmonary damage and for loss of elasticity in the alveoli, leading to emphysema and COPD. Chronic obstructive pulmonary disease (COPD) caused by smoking, is a permanent, incurable (often terminal) reduction of pulmonary capacity characterised by shortness of breath, wheezing, persistent cough with sputum, and damage to the lungs, including emphysema and chronic bronchitis. The carcinogen acrolein and its derivatives also contribute to the chronic inflammation present in COPD.¹²

Cardiovascular disease

Smoking can cause atherosclerosis leading to coronary artery disease and peripheral arterial disease Tobacco stains on primarily the 2nd and 3rd fingers in a heavy smoker. Inhalation of tobacco smoke causes several immediate responses within the heart and blood vessels. Within one minute the heart rate begins to rise, increasing by as much as 30 percent during the first 10 minutes of smoking. Carbon monoxide in tobacco smoke exerts its negative effects by reducing the blood's ability to carry oxygen. Both of these conditions can become permanent with prolonged use of cigarettes. Smoking also increases the chance of heart disease, stroke, atherosclerosis, and peripheral vascular disease. Several ingredients of tobacco lead to the narrowing of blood vessels, increasing the likelihood of a blockage, and thus a heart attack or stroke. According to a study by an international team of researchers, people under 40 are five times more likely to have a heart attack if they smoke.

Recent research by American biologists has shown that cigarette smoke also influences the process of cell division in the cardiac muscle and changes the heart's shape. The usage of tobacco has also been linked to Buerger's disease (thromboangiitis obliterans) the acute inflammation and thrombosis (clotting) of arteries and veins of the hands and feet. Although cigarette smoking causes a greater increase of the risk of cancer than cigar smoking, cigar smokers still have an increased risk for many health problems, including cancer, when compared to non-smokers. As for second-hand smoke, the NIH study points to the large amount of smoke generated by one cigar, saying "cigars can contribute substantial amounts of tobacco smoke to the indoor environment; and, when large numbers of cigar smokers congregate in a cigar smoking event, the amount of ETS [i.e. second-hand smoke] produced is sufficient to be a health concern for those regularly required to work in those environments."

Smoking tends to increase blood cholesterol levels. Furthermore, the ratio of high-density lipoprotein (the "good" cholesterol) to low-density lipoprotein (the "bad" cholesterol) tends to be lower in smokers compared to non-smokers. Smoking also raises the levels of fibrinogen and increases platelet production (both involved in blood clotting) which makes the blood viscous. Carbon monoxide binds to hemoglobin (the oxygen-carrying component in red blood cells), resulting in a much stable complex than hemoglobin bound with oxygen or carbon dioxide—the result is permanent loss of blood cell functionality. Blood cells are naturally recycled after a certain period of time, allowing for the creation of new, functional erythrocytes. However, if carbon monoxide exposure reaches a certain point before they can be recycled, hypoxia (and later death) occurs. All these factors make smokers more at risk of developing various forms of arteriosclerosis. As the arteriosclerosis progresses, blood flows less easily through rigid and narrowed blood vessels,

¹² Facchinetti F, Amadei F, Geppetti P, Tarantini F, Di Serio C, Dragotto A, Gigli PM, Catinella S, Civelli M, Patacchini R (2007). "beta-Unsaturated Aldehydes in Cigarette Smoke Release Inflammatory Mediators from Human Macrophages". *American Journal of Respiratory Cell and Molecular Biology* 37 (5): 617–623. doi:10.1165/rncmb.2007-0130OC. PMID 17600310.

making the blood more likely to form a thrombosis (clot). Sudden blockage of a blood vessel may lead to an infarction (stroke). However, it is also worth noting that the effects of smoking on the heart may be more subtle. These conditions may develop gradually given the smoking-healing cycle (the human body heals itself between periods of smoking), and therefore a smoker may develop less significant disorders such as worsening or maintenance of unpleasant dermatological conditions, e.g. eczema, due to reduced blood supply. Smoking also increases blood pressure and weakens blood vessels.

Oral

Perhaps the most serious oral condition that can arise is that of oral cancer. However, smoking also increases the risk for various other oral diseases, some almost completely exclusive to tobacco users. The National Institutes of Health, through the National Cancer Institute, determined in 1998 that "cigar smoking causes a variety of cancers including cancers of the oral cavity (lip, tongue, mouth, throat), esophagus, larynx, and lung." Pipe smoking involves significant health risks, particularly oral cancer. Roughly half of periodontitis or inflammation around the teeth cases is attributed to current or former smoking. Smokeless tobacco causes gingival recession and white mucosal lesions. Up to 90% of periodontitis patients who are not helped by common modes of treatment are smokers. Smokers have significantly greater loss of bone height than nonsmokers, and the trend can be extended to pipe smokers to have more bone loss than nonsmokers. Smoking has been proven to be an important factor in the staining of teeth. Halitosis or bad breath is common among tobacco smokers. Tooth loss has been shown to be 2 to 3 times higher in smokers than in non-smokers. In addition, complications may further include leukoplakia, the adherent white plaques or patches on the mucous membranes of the oral cavity, including the tongue, and a loss of taste sensation or salivary changes.¹³

SMOKING PHYSICAL ACTIVITY AND POOR PERFORMANCE

Athletes participating in an NCAA survey (2001) reported using spit tobacco for recreational or social purposes, to deal with the stresses of college athletics and to feel good. About 53% of the athletes who use spit tobacco reported using it 1-5 times daily. The use of nicotine in high doses is toxic and can cause nicotine poisoning.

Signs of nicotine poisoning are vomiting, sweating, mental confusion, diminished pulse rate, headache, breathing difficulty, respiratory failure caused by muscle paralysis and death. Impaired oxygen transport secondary to increases in carboxyhemoglobin. In many cases smoking will increase breathing rate during sub maximal exercise, and this will reduce athletic performance.

Smoking negatively impacts physical activity-immediately and long term. In addition to cancer, heart disease and respiratory disease, smokers have less endurance; reduce physical performance and higher rate of injury.

Tobacco smoke contains carbon monoxide. When inhaled, it binds to red blood cells, which displace oxygen and prevent its delivery to muscle cells. Smoking also constricts blood vessels, limiting blood flow to the muscles. Less blood and oxygen flow means that's its harder to build muscle and muscles tire more easily. The nicotine in tobacco narrows blood vessels and puts added strain on the heart, too which can weaken it, over time. All of these facts affect physical health and athletic performance.

- ❖ The decreased in oxygen caused by smoking causes smoker to have higher resting heart rate than non smoker, which means their hearts are always working harder to pump blood and oxygen to the body- even for everyday activities, like walking up stairs. Smoker also have lower maximum heart rate than non smokers, because their hearts are not able to efficiently pump the extra nutrients and oxygen rich blood to their muscles during time of stress, including exercise.
- ❖ Smoking at any age damages your lungs, but smoking during adolescence also stunt lung growth and can cause lung function to decline years earlier than non smokers. As a result, children and teens who smoke are less physical fit and have more breathing problems.

¹³ Reibel J (2003). "Tobacco and oral diseases. Update on the evidence, with recommendations". Medical principles and practice : international journal of the Kuwait University, Health Science Centre. 12 Suppl 1: 22-32. doi:10.1159/000069845. PMID 12707498.

- ❖ Smoker suffers from shortness of breath almost three times more often than nonsmoker¹⁴. Smoking is related to chronic coughing, wheezing and asthma in children and teens.
- ❖ Smoking disrupts bone growth. This can be particularly concerning during adolescence, when teen skeletons are growing rapidly. Smokers have a higher risk of bone fracture, and their broken bones take longer to heal. This is because the chemical in cigarette smoke limit your body's ability to form healthy, new bone tissue and also break down existing bone tissue. Over time this lessens bone density and causes bones to become weak and brittle.
- ❖ Smokers tend to less physical active than non smokers. While some people unwisely begin or continue to smoke as a weight control, the research suggests that the link between smoking, less physical activity and decreased physical performance actually hinder healthy weight control¹⁵.
- ❖ People who quit smoking demonstrate improved exercise performance compared to those who continue to smoke.

SMOKING AFTER EXERCISE

It has been shown that in rural areas the sportsperson smoke tobacco just after workout or any physical activity. It is most harmful for health specially respiration and throat. Because, when we do exercise or strenuous activity our heart beat raise rapidly and our heart pumps more blood and carry more oxygen to the muscles. But due to the smoke, blood carries more carbon-monoxide than oxygen which cause the most respiratory diseases and bad health of sportsperson. So it can be said that, before and after workout smoking is more harmful than other times. During the physical activity or any handwork our sweat gland works more, so more humidity found in our neck this time, smoking is most dangerous for the internal muscles of the neck. It can cause the throat cancer. So, avoid smoking during physical activity and workout. We need tobacco free environment of sports.

CONCLUSION

If you smoke your body will have less fuel and the little fuel it has is not transported to those areas that need it when you are playing sport. Because of this smokers tend to have less energy and find it hard to keep high levels of fitness. At first you may not notice much difference, but the more you smoke and the longer you smoke the more you will notice it having an effect on you. Women who smoke during pregnancy place their unborn babies at risk of being born smaller than babies of non smokers. Passive smoking is when non smokers are affected by the smoke of others. Passive smoking is dangerous as the toxins described above are still present in the airborne smoke. People, especially children, who are often affected by passive smoking, have higher rates of respiratory illness such as bronchitis and asthma.

Smoking also affects other people. Most people who don't smoke find it very unpleasant to be close to a smoker. The smoke from a cigarette can irritate your eyes and nose making it difficult for you to breathe. Smoke can trigger an asthma attack in people who suffer from asthma. And breathing other people's cigarette smoke may also cause cancer. Smoking can affect families. If a parent who smokes becomes sick and cannot go to work, the family may suffer from a loss of income. The 2008 Beijing Olympics banned not only tobacco usage, but advertising, sponsorship, promotion and sale of tobacco products in Olympic venues. The last Olympics with a tobacco company as a sponsor were in 1984, and control has gotten stricter since then (as can be seen from the Beijing regulations). So after studied the above statements it's our duty that we create awareness about tobacco among the sportsperson and other people also and help in making the tobacco free environment so that, we save the nature and enhance the level of health of our people. Finally I advised that "quit smoking as soon as possible".

¹⁴ CDC, "Information Sheet: You(th) & Tobacco," http://www.cdc.gov/tobacco/youth/information_sheet/, accessed April 23, 2014.

¹⁵ Tomeo, CA, et al., "Weight Concerns, Weight Control Behavior, and Smoking Initiation," *Pediatrics* 104(4):918-924, October 1999. See also, HHS, *Preventing Tobacco Use Among Youth and Young Adults: A Report of the Surgeon General*, 2012

The good news is that the individual who exercise are less likely to smoke, and engaging in exercise may be able to quite smoking. There are benefits to quits smoking at any age. While some of the benefits occur long term, there are immediate benefits that can boost physical performance:-

- 1. 20 minute after quitting your heart rate drops.*
- 2. 12 hours quitting, carbon monoxide level in your blood drops to normal.*
- 3. 2 weeks to 3 months after quitting, your lungs function begins to improve.*
- 4. 1 to 9 months after quitting, your coughing and shortness of breath decrease.*

References

- [1]. Mandeep singh Nathial-**PHYSICAL EDUCATION & HEALTH**. Published by – Khel Sahitya Kendra, New Delhi (2009) I.S.B.N-81-7524-523-9 p.g. 170
- [2]. Just 13, and Working Risky 12-Hour Shifts in the Tobacco Fields". The New York Times. September 7, 2014. Retrieved
- [3]. People's Republic of China. "State Tobacco Monopoly Administration <<http://www.gov.cn/english/2005-10/03/content_74295.htm>>.
- [4]. Shoba, John and Shailesh Vaite. Tobacco and Poverty: Observations from India and Bangladesh. Canada, 2002.
- [5]. A Parkash. **HEALTH EDUCATION**. Published by –Khel Sahitya Kendra, New Delhi (2000) I.S.B.N- 81-7524-048-2 p.g. 16
- [6]. Tobacco in sport: an endless addiction? Tob Control 2005;14:1-2
- [7]. "Professional Rodeo Cowboys Association Ends Tobacco Sponsorship | Tobacco Facts". Tobacco Facts. 2009-12-02. Retrieved 2010-07-10.
- [8]. Prevalence of current tobacco use among adults aged=15 years (percentage)". World Health Organization. Retrieved 2009-01-02.
- [9]. World Health Organization (2008). The Global Burden of Disease (2004 Update ed.). Geneva: World Health Organization. ISBN 92-4-156371-0.
- [10]. ational Cancer Institute. Retrieved 8 September 2014
- [11]. 21st Century Could See a Billion Tobacco Victims". Tobacco News Flash (Tobacco-Free Missouri Coalition) 3 (12): 1. 2007. Retrieved 2012-05-06.
- [12]. CDC, "Information Sheet: You(th) & Tobacco," http://www.cdc.gov/tobacco/youth/information_sheet/, accessed April 23, 2014.