**Lung Cancer and Smoking**

Tobacco is the single leading cause of avertable death worldwide. Smoking is largely associated with lung cancer both in the communal discernment and etiologically. Though, almost every organ of the body falls under the firing line of smoking, but lungs tissues being the first to be in direct contact with the poisons in the smoke faces irreparable damage, as smoking harms and destroys the lung’s natural cleaning and repair system and ensnares the harmful chemicals responsible for causing cancer inside the lungs. The permanent damage of the air sacs makes it harder for the lungs to take in oxygen and breathe out carbon-dioxide. Smoking has been root caused for estimated ninety percent of all deaths from chronic obstructive lung disease. It is also responsible for coronary heart disease, stroke and a congregation of other cancers and diseases. It has been proven that smoking not only diminishes overall health but also reduces life expectancy by seven to eight years.

**Other health threats due to smoking-**

* causes hypertension [high blood pressure} major risk factor for heart attacks and stroke
* leads to erectile dysfunction and fertility problems
* aggravate asthma and thwart the affect of its medication
* increases the risk of cataract and macular degeneration
* contributes to the development of ulcers and periodontal disease
* causes preterm delivery and stillbirth

**Second-hand Smoke**

Second hand smoke often referred as environmental tobacco smoke, involuntary smoking, and passive smoking has been classified as a known human cancer causing agent. The non-smokers or the passive smokers exposed to the blend of side-stream smoke and mainstream smoke are at a higher risk than the direct smokers and faces serious health hazard, including lung cancer, respiratory infections, and asthma. The smoke emitted from the burning tips of cigarettes contains more harmful chemicals than the one passed through the cigarette filter. Second hand smoke is highly toxic and even short-term exposure can augment the risk of heart attacks and be the cause of premature deaths in non smoking children and adults. “Second hand smoke causes approximately 3,400 deaths from lung cancer and 22,700 to 69,600 deaths from heart disease each year.”( American Lung Association, 2005)

Second hand smoke may result in infections and premature deaths in non-smoking adults and children. Children being most vulnerable face increased risk of SIDS, colds, bronchitis, and severe asthma. Pregnant women are more prone to give birth to babies with low birth weight. (National Cancer Institute at the National Institutes of Health).

**Chemicals in tobacco smoke-**

There are roughly about four thousand different damaging chemicals present in cigarette smoke that can play havoc on the cells and systems of the human body. Every time an active or the passive smoker inhales these chemicals, they start interfering the functioning of the cells, causing cell deaths and genetic changes that ultimately leads to cancer. Out oftwo hundred and fifty known **harmful chemicals** at least sixty nine can cause cancer, that includes; benzene, chromium, cadmium, nickel, and arsenic to name some. Other common toxic chemicals are formaldehyde, toluene, cyanide, and benzopyrene.

**Factors controlling the damages caused by smoking-**

* the number of cigarettes smoked
* the number of years one has been smoking
* the manner in which tobacco is prepared
* whether the cigarette has a filter

**History of tobacco consumption**

Smoking, apart from chewing and snuffing, is the universal method of consuming tobacco. Tobacco has a long history in Americas with it being the first crop grown for its monetary value. The practice of tobacco smoking began as early as 5000-3000 BC and was initiated in Eurasia in the late 16th century. The indigenous people of Americas used tobacco in their religious practices, and the mid-1500s, saw it being used for medical treatment for colic, hysteria, toothache, dysentery, bad breadth, and cancer among other illness. With its growing popularity, tobacco gained financial significance, and in 1830 cigars emerged as most popular tobacco product in England. Philip Morris laid down the foundation for the modern tobacco industry in the mid 1800s by selling Turkish cigarettes in London .Soon after J.E.Liggett in 1849 and in 1875 R.J.Reynolds formed a tobacco company producing several brands of chewing tobacco. The emergence of first cigarette rolling machine by James Bonsack in 1884 sped the production of cigarettes beyond imaginations.

Until 1889, very limited knowledge regarding the science of tobacco and its health effect were available and it was during this period that for the first time scientists worked on the relationship between nicotine and nerve cells. World War 1 was instrumental in addicting a generation of men and resulted in the increase in the per capita consumption of cigarettes from 94 per year to 419 per year. By 1944 cigarette production was up to 300 billion a year with six giant companies involved in its production in U.S. They are Philip Morris, R.J.Reynolds, American Brands, Lorillard, Brown and Williamson, and Liggett and Myers. With rapid growth in cigarette consumption it was observed that there was also a noticeable upswing in the rates of lung cancer, providing first statistical proof of a link between tobacco and lung cancer and heart diseases.

The gradual awareness in the general public regarding the side effects of tobacco smoking on the overall health saw the rise of non-smokers rights in the United States in the 1970s. Smoking was restricted to designated areas and people were prohibited from smoking in the public places. In 1986 the health consequences of second hand smoke came into limelight and smoking was banned in all U.S. flights and interstate buses. Under the Canadian legislation of 1988 and 1989 restrictions were imposed on tobacco advertisements, workplaces were ensured to be smoke free, and it was made mandatory to include one of the four strong health warnings on all cigarette packs. Numerous new regulations and subsequent lawsuits were launched in mid-1990s.

In 1994 Liggett Tobacco formally acknowledged and accepted that cigarette smoking causes health problems, including lung cancer, heart diseases and emphysema and the tobacco industry are primarily targeted at youth under eighteen years of age. Smokers generally begin during their youth for the combined effect of superficial gratification acting as encouraging reinforcement and yearning to relate to social peer pressure. Later escaping from the withdrawal symptoms and negative reinforcement makes one stick to this unpleasant habit.

**Symptoms of lung damage from smoking**

* coughing
* recur chest infections
* discharge of mucous
* breathlessness while climbing stairs

**Smoking rate is declining in U.S.**

Since 1990s the tobacco industry in the United States has suffered great setback as a result of being sued by several U.S. states. Tobacco companies had to shell out large cash settlements and heavy taxes were levied on the profits of this industry which added further financial burden on the companies. In 2009 under the presidency of President Obama a new law has been signed which has been called a “sweeping anti-smoking bill” aimed at preventing children and teenagers from becoming addicted to smoking at a young age.

The government war on smoking has been showing major progress among all socio-demographic groups over the years and cigarette smoking prevalence has declined since 1965, when 42 percent people smoked. Education and awareness along with government policies of levying higher excise taxes that make cigarette more expensive, mandatory smoke free environments in most workplaces, and the easy accessibility of counselling and medications has resulted in the steady dropping in the percentage of Americans who smoke cigarette. Active smokers have been now outnumbered by former smokers. Reduction in smoking levels has consequently reduced second hand smoke exposure among non-smokers, primarily children and pregnant women.

References

American Lung Association. (2005). Secondhand Smoke. <http://www.lung.org/stop-smoking/about-smoking/health-effects/secondhand-smoke.html>

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