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action on smoking and health

Pipe and cigar smoking

www.ash.org.uk enquiries@ash.org.uk Telephone: 020 7739 5902

Types of cigar

A cigar is a product made of tobacco leaves or parts of leaves rolled together and covered with a binder (a firm tobacco leaf which holds the filler together and gives the cigar its shape) and an outer wrapper made of natural or reconstituted tobacco. The term includes cheroots and cigarillos (small or miniature cigars) Some small cigars are similar in size to a cigarette and may include a filter. Those with a filter usually have a wrapper of processed tobacco which looks similar to brown paper, while small cigars without a filter are generally wrapped in tobacco leaf. [1] [2]

Prevalence

In Great Britain there has been a steady decline in pipe and cigar smoking among men since the 1970s. In 2007, just 2% of men smoked at least one cigar a month, compared with 34% in 1974. Very few women have ever smoked cigars and since 1978 the numbers have been scarcely measurable. In 2007, only one percent of men said they smoked a pipe, and they were almost all aged 50 and over.[3]

Risk to the pipe or cigar smoker's health

The difference in risk to a cigar smoker's health, as compared with a cigarette smoker's health, is largely due to the differences in smoking patterns of the two groups. In the classic studies of smoking, such as those by Doll and Peto, the overall risk of premature death was raised some 70% in cigarette smokers compared with non-smokers. In comparison, the risk for pipe and cigar smokers was only up to 10% higher than non-smokers. However, in such studies, pipe and cigar smokers were usually defined as those who had never smoked cigarettes: these primary smokers tend not to inhale and so are exposed to relatively low amounts of tar and other harmful constituents of the tobacco smoke compared with cigarette smokers. Nowadays, as most cigar smokers are former cigarette smokers, they are likely to have transferred their inhalation techniques, despite the irritancy of the smoke: in this case, they will be at significantly greater risk of disease than pipe or cigar smokers who have never smoked cigarettes.[4]

A UK study involving over 7,700 men concluded that pipe and cigar smoking, whether primary or secondary, carried a major risk of smoking-related ill health. The research involved men aged 40-59 years old. Compared with people who had never smoked, pipe/cigar smokers had a significantly higher risk of major coronary heart disease (CHD), stroke, cardiovascular, non-cardiovascular and total mortality after confounding factors had been taken into account. The study also revealed a significant higher incidence of

smoking-related cancers. The authors concluded that the overall effects in pipe/cigar smokers fell mid way between those who had never smoked and light cigarette smokers although the risk factors for lung cancer were similar to those for light cigarette smokers.[5]

Risk to the pipe or cigar smoker's health (continued)

A study of 15,000 male pipe smokers conducted by the American cancer Society found that pipe smoking carried a similar risk of cancer and other disease as cigar smoking. Compared to non-tobacco users, pipe smokers had five times the risk of lung cancer; nearly four times the risk of throat cancer and more than double the risk of esophageal cancer. Colon cancer risk increased by forty percent, pancreatic cancer by sixty percent and cancer of the larynx by thirteen percent. The study also found pipe smokers were at greater risk of other tobacco-related diseases. They had a thirty percent risk of heart disease and nearly three times the risk of chronic obstructive pulmonary disease.[6]

Nicotine dependency

The smoke of cigars is more alkaline than cigarette smoke and dissolves more easily in saliva. Therefore the desired dose of nicotine is achieved without the need to inhale the smoke into the lungs. Cigars are capable of providing high levels of nicotine at a rate fast enough to produce clear dependence, even if the smoke is not inhaled.

Toxicology of cigars

A class of highly carcinogenic compounds known as tobacco-specific, N-nitrosamines (TSNA) is present in cigar smoke at significantly higher levels than in cigarette smoke. Examination on a "per gram of tobacco smoked" basis reveals that tar, carbon monoxide and ammonia are produced at greater quantities by cigars than cigarettes. When equal doses are applied, the tar produced by cigars exerts a greater tumorigenic activity in mice compared with the tar from cigarettes, because cigar tar contains higher concentrations of carcinogenic polycyclic aromatic hydrocarbons.[7] A UK study found a higher risk of CHD events and stroke.[5]

Lung cancer

A major US study of more than 17,000 men found that cigar smokers face more than twice the risk of lung cancer when compared to non-smokers,[8] whilst a European study found that they face nine times the risk.[9] The same European study also found that pipe smokers have just under eight times the risk of lung cancer when compared to non-smokers.

Mortality rates for lung cancer in those who have always smoked only cigars and pipes are significantly higher than in non-smokers but are lower than for cigarette only smokers. The risk of lung cancer increases in relation to the number of cigars or pipes of tobacco smoked each day and the degree of inhalation. The lower risk of lung cancer among pipe and cigar smokers when compared to cigarette smokers is due to the lesser amount smoked and the lower degree of inhalation.

Other cancers

The difference in exposure to smoke by different tissues is the most likely explanation for the difference in mortality pattern among cigar and cigarette smokers. The oral mucosa is exposed to similar amounts of smoke by those who do and those who do not inhale deeper into the respiratory tract. Cigar smokers who do not inhale receive a high smoke exposure to the mouth and tongue causing an increased risk of oral cancers. Also, tobacco constituents dissolved in their saliva are swallowed down their oesophagus producing the observed increase in oesophageal cancers. The oesophagus also receives mucus cleared from the lungs by the ciliary mechanism or by coughing which is also swallowed. Tobacco and alcohol act synergistically in the case of oral and pharyngeal cancers, multiplying the risk of contracting the disease.[10]

Cancer of the larynx is also developed by pipe and cigar smokers at rates comparable to those of cigarette smokers (i.e. several times that of non-smokers).[11] A US study found that cigar smokers face more than twice the risk of cancers of the mouth, throat and oesophagus in comparison to non-smokers.[8]

Respiratory disorders

Pipe and cigar smokers experience higher mortality from bronchitis and emphysema as compared with non-smokers although not as high as that of current cigarette smokers.[12] A US study found that cigar smokers face a 45% greater risk of developing bronchitis and emphysema compared to non-smokers.[8]

Heart disease

In one study, cigar smokers who had taken up cigars after stopping cigarettes and smoked at least five cigars a day had a risk of non-fatal myocardial infarction about four times as high as that among ex-cigarette smokers who did not smoke cigars. Among those who had never smoked cigarettes, there was very little increased risk.[13] A US study found that cigar smokers face a 27% greater risk of coronary heart disease when compared to non-smokers.[8] Smoking cigars appears to exert an acute effect on the heart. In a small study of twelve healthy men who smoked cigars and cigarettes, researchers at Athens Medical School found that shortly after smoking a cigar, the men displayed greater stiffness in their aorta. The men's aortic stiffness increased "promptly" after smoking the cigar and remained elevated during the two-hour period of the study.[14]

Passive smoking

Non-smokers are at risk of contracting lung cancer from exposure to other people's smoke, whether that smoke is from pipes, cigars or cigarettes. After studying epidemiological studies on the effects of passive smoking, the UK's Scientific Committee on Tobacco & Health concluded that the risk of lung cancer in non-smokers exposed to passive smoking is increased by between 20% and 30%.[15]

Sidestream smoke from cigars contributes more to environmental pollution than sidestream smoke from cigarettes when equal amounts of tobacco are burned.[16]

See also ASH Fact Sheet: Secondhand Smoke and ASH Fact Sheet: Waterpipes

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