Tabacco

Tobacco is a plant from the eggplant family, the leaves of which contain the alkaloid nicotine. Tobacco has its origins in the American continent. This plant was brought to Europe by Columbus' ship in 1492. Jean Nicot, the French ambassador to Portugal, gave his name to the only addictive substance in tobacco, nicotine. He was an enthusiastic promoter of this plant, to which he attributed miraculous healing effects. Native Americans also used tobacco as medicine or for ritual ceremonies. Only later was tobacco used exclusively as a recreational drug. **The turning point** that paved the way for the **worldwide tobacco epidemic** was the **invention of the cigarette-making machine in 1881**. Mass marketing made cigarettes very popular and the tobacco epidemic began. With the advent of the 20th century, another rapid expansion of these goods followed. A total of 100 million deaths are attributed to tobacco during the 20th century. Since 1992, according to the World Health Organization's International Classification of Diseases, tobacco addiction has been considered a **separate disease**, **diagnosis F 17**.

Health context

In the Czech Republic, a total of around 18,000 people die each year from **diseases caused by smoking** (almost a fifth of the total number of deaths in the Czech Republic):

- diseases of the heart and blood vessels,
- cancer illnesses,
- chronic lung diseases.

The use of tobacco products is associated with **approximately 25% of all oncological diseases**.

The effect of smoking on the respiratory system

Changes in the composition of the respiratory system

- Changes in goblet cells and mucus-producing glands in the bronchi,
- premodeling of the bronchial lining (hyperplasia, loss of cylindrical ciliated cells, changes in cell nuclei),
- changes in the submucosal connective tissue –*(chronic bronchitis)*,
- changes in lung alveoli (emphysema).

Functional changes

- Malfunction of the self-cleaning function.
- Disorders of perfusion, diffusion, ventilation.

Chronic non-specific respiratory diseases

- chronic bronchitis,
- pulmonary emphysema.

Cancer illnesses

- Lung tumors;
- tumors of the larynx;
- tumors of the oral cavity;
- tumors of the esophagus;
- bladder cancer;
- tumors of the pancreas.

Forms of tobacco consumption

thumb|Pipe Tobacco is used in the form of smoking or as smokeless (smokeless) in the form of chewing, sniffing and others.

Burning forms

A hookah/cigar

thumb|Hookah Smoke from a hookah or cigar is **more alkaline** in nature than cigarette smoke. In practice, this means that nicotine can already be absorbed in the oral cavity (**buccal mucosa**).

Hookah

Unfortunately, hookah is mistakenly taken by the lay public as a less harmful alternative to tobacco use. However, high risks are associated with this attitude and with a certain underestimation of this form of smoking, which are mutually reinforcing. The construction of the hookah already tells us what problems we can expect here. Tobacco burns through smoldering carbon. Various oils and molasses are added to the tobacco itself. It is a form of tobacco that is moist and smolders at a low temperature. Due to indirect combustion, **low-quality and imperfect pyrolysis occurs at low temperatures**. The smoke is further cooled in the carafe, and cold air is drawn into the body, which is easier and deeper to inhale, because the reflexes of the respiratory system are not used here, which would prevent this from warm smoke. Furthermore, stronger coatings are needed to burn the pipe well. **Thousands of chemical substances** (eg DDT) are released from coals and tobacco , which have a **pathogenic effect** on the human body. It is also good to mention a number of heavy metals from fertilizers or pesticides banned in a number of countries - as part of the decay series, they produce polonium 210 , which is a source of alpha radiation. Last but not least, **infection** (e.g. TBC) is also a risk factor when smoking hookah.

Cigarettes

thumb|Cigarette **Approximately 1–3 mg of nicotine** enters the body from one cigarette . Cigarettes contain a little over 1,000 additives, of which roughly **100** are demonstrably **carcinogenic** . Altogether, up to 5,000 different chemicals are contained in cigarette smoke.

- **The so-called Lights** : there is no healthier form of smoking (so-called herbal cigarettes cannot be recommended either). Research has shown that a person addicted to nicotine who smokes light cigarettes inhales deeper, longer and more often. The result is the **same level of nicotine in the blood as in cigarettes with an average nicotine content.**

Non-burning forms *(Smokeless)*

Snuff

It is a finely crushed form of tobacco. It is inhaled through the nose, where it acts on the mucous membrane of the paranasal sinuses. It has a vasoconstrictive effect, which is positively perceived as relaxing the airways.

Chewing tobacco

Snus

thumb|Snus, cut tobacco *Moist snuff*, cut tobacco.

Nowadays, the demand for snus is constantly increasing, mainly in countries where smoking is not allowed in public spaces. Most snus on the market contains more than 50% water per pack.

Because snus/rolled tobacco does not burn, the risk of lung cancer is significantly lower than cigarettes, but it is not harmless - for example, it increases the risk of pancreatic cancer.

Passive smoking

Secondhand smoke, "thirdhand smoke", smoke from the third hand.

By this we mean the inhalation of tobacco smoke in the environment. It has a similar effect on human health **as active smoking** , but to a lesser extent - the dose is smaller. An exception to the health effects of passive smoking is the cardiovascular risk: it is similar to that of active smoking. Vascular damage and demonstrable changes in the endothelium occur after only a few minutes in a smoky environment. In countries where completely smoke-free public spaces have been introduced, there has been a decrease in acute myocardial infarctions of the order of 10-45%, especially among young people (up to 60 years) and non-smokers, as well as in sudden cardiac deaths by up to 50%. In addition to acute symptoms such as **irritation of the conjunctiva** or scratchy throat, these are mainly **lung and cancer diseases** .

The secondary stream of smoke is more concentrated than **the main smoke** : this is determined by the **combustion temperature** . When coated, the soot has a temperature of around 1000 °C, but between strokes it only burns at a temperature of 400 °C. At a higher combustion temperature, fewer pollutants are produced.

Links

Related articles

- Zplodiny kouření
- Prevence závislosti na tabáku

References

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Kategorie:Hygiena Kategorie:Epidemiologie