

# Smoking fumes

**Cigarette smoke** is a dynamic complex of more than 4,000 gaseous and solid substances. Contains 43 proven carcinogens (dibenzanthracene, benzo-a-pyrene, dimethylnitrosamine, diethylnitrosamine, vinyl chloride, hydrazine, arsenic, etc.), 60 co-carcinogenes, promoters or suspected carcinogens, mutagens, allergens, toxic substances. It is also rich in carbon monoxide (smokers have 5-10% of the carboxyhemoglobin). There are 700 additives in cigarette smoke.



## Active smoking

**Active smoking** causes or increases the risk of a number of fatal and non-fatal diseases:

- **fatal diseases** related to smoking - carcinoma of the lungs, upper respiratory tract, bladder carcinoma, carcinoma of the pancreas, ischemic heart disease, chronic obstructive pulmonary disease, carcinoma of the esophagus, carcinoma of the kidney, cervix (Peto, R. in: Crofton, J., Doll, R.: Tobacco and Health, 1996);
- **non-fatal diseases** related to smoking - peripheral vascular disease, cataract, Crohn's disease, ulcers of the stomach, duodenal ulcers, hip fractures (over 65 years). (Peto, R. in: Crofton, J., Doll, R.: Tobacco and Health, 1996);

## Passive smoking

**Passive smoking** ( second hand smoking ) causes 120-160 deaths in the Czech Republic per year. **ETS** ( environmental tobacco smoke ) contains hundreds of toxic substances. Exposure to ETS can be demonstrated in the blood, saliva or urine of non-smokers, the acute impact is manifested by irritation of the mucous membranes of the eyes and respiratory tract, an unpleasant olfactory sensation.

### ETS causes

- lung cancer;
- fatal and non-fatal heart attacks ( ↓ ability to transport oxygen by blood, ↓ ability of the myocardium to use oxygen ATP synthesis, greater extent of ischemia);
- inflammation of the upper and lower respiratory tract;
- inflammations of the middle ear;
- a small but significant decrease in lung function in children;
- increase in the incidence of new asthma diseases and its recurrences;
- it is associated with sudden infant death syndrome.



ETS

Effects on the fetus in a smoking mother: ↓ birth weight (about 250 g) and the related impact on further development, congenital limb defects (Experts Statement on Passive Smoking, Barcelona 1996). Smoking during pregnancy further increases the risk of spontaneous abortion and ectopic pregnancy.

## Links

### Related articles

- Epidemiology of Tobacco Dependence
- Treatment of Tobacco Dependence
- Prevention of Tobacco Dependence
- Tobacco

### Sources

- BENCKO, Vladimír, et al. *Hygiena : Učební texty k seminářům a praktickým cvičením*. 2. edition. Praha : Karolinum, 1998. ISBN 80-7184-551-5.