Diving and smoking

Inhalation of tobacco

Almost all tobacco use (with the exception of chewing tobacco or snuff) – regardless of whether you smoke cigarettes, pipes or e-cigarettes – involves the inhalation of nicotine. The hot smoke or cold vapour affects the oral cavity, mucous membranes, teeth, tongue and base of the tongue, the glottis and vocal cords, the trachea and, when it reaches the lungs, the bronchial tubes and smallest bronchioles as well as the lung tissue itself (e.g. the alveoli).

Content of tobacco smoke

The tobacco smoke contained in a conventional cigarette is a complex mixture of more than 5,300 substances, including many poisonous and carcinogenic substances. Even the vapour of an e-cigarette contains propylene glycol, flavourings with allergenic effects, aerosol particles and carcinogens as well as metals.

Health complications arise as a result of chronic inflammation of the mucous membranes, the deposit of carcinogenic substances, arteriosclerosis and the impairment of the entire metabolism.

Smoking and diving

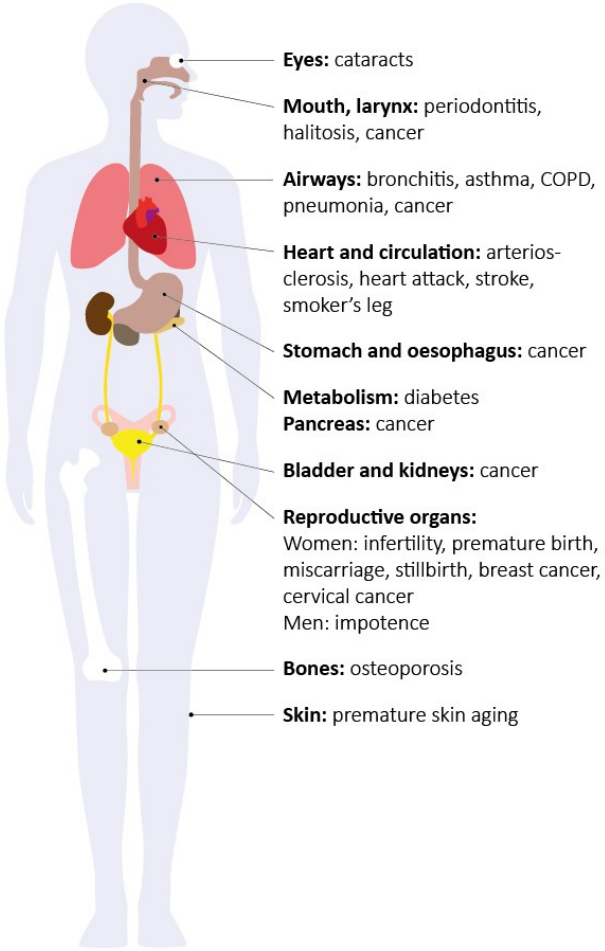
Depending on the amount and duration of cigarette consumption (pack years), in addition to cardiovascular disease, the effects on the lungs are particularly dangerous for divers. The long-term consumption of cigarettes leads to pathological changes in the alveoli in the lungs (air sacs). The bullae (bulges) resulting from this may act as a valve which can cause a ruptured lung. Bullae can only be diagnosed by way of a spiral CT scan of the lungs when inhaling and exhaling as they can remain undetected for long periods in lung function tests.

Fitness to dive for smokers

Normal fitness to dive according to the Guidelines of the Society for Diving and Hyperbaric Medicine (GTÜM). For people with a long history of smoking, an exercise ECG is recommended. The indication for a lung CT should be made generously in order to exclude any serious structural damage to the lungs that may already exist.

Limitations to the fitness to dive

- Long-term smokers are advised to slow down their ascent rate.
- If bullae with a valve effect have already been detected by CT, the person is no longer fit to dive.



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