

Health and addiction risks associated with water pipes

BfR Updated Health Assessment No. 011/2009, 26 March 2009

Water pipes, also known as oriental tobacco pipes, are smoked in many parts of the world. Depending on the country of origin they also go by the following names: shisha, boory, narghile, hookah, goza or hubble-bubble. In recent years the use of water pipes has risen considerably in the eastern Mediterranean region. In Germany, too, some adolescents smoke water pipes. Against this backdrop the Federal Institute for Risk Assessment (BfR) has undertaken a renewed assessment of the health risks that may be associated with smoking water pipes. The Institute comes to the conclusion that regular consumption is scarcely less harmful than the regular consumption of cigarettes.

The carbon monoxide in water pipe smoke is of particular relevance. Consumers take in large amounts of this toxic gas. In the organism it mainly binds to the red blood pigment, haemoglobin, and can impede oxygen transport. Pregnant women and individuals already suffering from cardiovascular diseases are particularly at risk. These groups of people should not smoke water pipes. Pregnant women should not spend longer periods in shisha cafes either.

Water pipe use over a period of several years has been observed to cause, amongst other things, impairments of pulmonary function and to lead to an elevated risk of tumours.

The nicotine concentration in blood rises to a similar degree when smoking water pipes and cigarettes. Nicotine is responsible for the addictive effect. According to the latest findings available, nicotine intake and the associated addiction risk are the most important problems in conjunction with water pipe use in addition to the carbon monoxide exposure already mentioned. Further studies into smoking behaviour in Germany are needed in order to be able to quantify the health and addiction risks. BfR is currently engaged in research into the development of standardised methods for fume off and for the determination of contaminants in water pipe smoke.

For reasons of hygiene it is still the case that disposable mouthpieces should be used when sharing a water pipe. BfR is of the opinion that the comparison of the smoke volumes inhaled by water pipe and cigarette smokers – like the one undertaken in a WHO study ((WHO Study Group on Tobacco Product Regulation (TobReg) 2005) – is misleading. In the opinion of BfR what is important is not the inhaled smoke volume but the amount of contaminants taken in.

Given the major popularity of water pipes in Germany, BfR recommends that adolescents should be informed about the risks of smoking not just cigarettes but also water pipes.

The full version of the Information in German is available on

http://www.bfr.bund.de/cm/216/gesundheits_und_suchtgefahren_durch_Wasserpfeifen.1905 8.pdf