# Recommendations for restaurants offering shisha pipe smoking to prevent carbon monoxide poisoning

Throughout the past, life-threatening incidents of carbon monoxide poisoning have occurred at some shisha bars in Berlin and other German cities. Guests suffering from poisoning required urgent treatment, often involving oxygen therapy in a pressure chamber. Shishas (aka hookahs) are water pipes which use glowing coals that can pose a significant health hazard for guests and staff due to the dangerous carbon monoxide emitted when preparing and smoking shishas. It is not relevant whether tobacco, herbs, fruits or stones are smoked.

#### WHAT ARE THE EFFECTS OF CARBON MONOXIDE?

Carbon monoxide (CO) arises from unclean (incomplete) combustion of, for instance, the coal used with water pipes. CO diffuses rapidly in the air and is easily absorbed in the lungs. It binds to red blood cells in the body much more effectively than oxygen and displaces it. This results in oxygen insufficiency, which first affects the central nervous system and can later affect the heart muscle as well. Symptoms include headache, dizziness and nausea, possibly followed by unconsciousness and death. CO-Poisoning can have adverse long-term effects (especially for the nervous system and heart). Pregnant woman, unborn babies, persons with heart problems and anaemia and the elderly are particularly at risk to CO-Poisoning.

Carbon monoxide is colourless, odourless and tasteless, and does not irritate the respiratory system. Consequently, it often passes unnoticed for a long time, which makes it so dangerous. The human body exhibits no defence responses (such as tearing eyes, nausea, flight behaviour) against this poisonous gas.

## Operators should take precautionary measures

To avoid the carbon monoxide associated health risks the Regional Office for Health and Social Affairs Berlin (LAGeSo) recommends:

- Ensure adequate air flow through adequate ventilation systems. Windows alone are insufficient for ventilation! The maximum concentration of carbon monoxide should not exceed 30 ppm (parts per million) at any time.
- Install carbon monoxide warning devices (CO detectors) in sufficient quantity and quality.
- Attach signs that alert your guests to the health hazards associated with carbon monoxide exposition:

## "Dear guests,

please be advised that shisha water pipes are smoked in this establishment. Preparing and smoking the pipes emits carbon monoxide. Prolonged and/or intensive smoking of shishas without adequate active mechanical ventilation in the rooms may cause danger to life and health. Pregnant women and heart disease patients are advised to avoid Carbon monoxide exposition and leave the premises. Entrance is exclusively permitted to persons age 18 and above."

- Install an exhaust system for smoke and flue gas in the preparation room for coals and shisha/hookah pipes.
- Dispose glowing coals only in appropriate and suitable containers.

The installation and maintenance of the ventilation system, the flue gas exhaust system and the installation of the CO detector should be left to competent specialist companies.

Please note that in addition to the above requirements, legal regulations for the operation of (shisha) restaurants, regarding non-smoker protection, protection of minors, food law, emission control, occupational safety, building law or preventive fire protection must be observed.

Operators should be aware that they must ensure their premises do not pose a health hazard to their guests and employees. Any personal damage through carbon monoxide exposition may result in civil liability as well as in criminal investigations. Defendants may face substantial fines or prison sentences.

Source: Courtesy of the Hamburg Authority for Health and Consumer Protection, Billstraße 80, 20539 Hamburg

#### More information can be found here:

Flyer of the German Employer's Liability Insurance Association for the Food and Catering Industry:

https://www.bgn.de/files/12479/60410/currentVersion/Flyer\_Shisha\_3-2018\_WEB.pdf

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