

Hookah smoking may be as harmful as cigarettes, but in a different way, a new study suggests.

Researchers at the University of California, San Francisco, studied 13 volunteers who had experience with hookah, or water pipe, smoking and cigarettes. Each participant smoked either a hookah or cigarettes for four days, and then a week later switched. They smoked an average of three hookah sessions or 11 cigarettes daily.

When participants' nicotine blood levels were measured, the researchers found those who used a hookah had about half the nicotine levels of cigarette smokers. Carbon monoxide levels in participants' breath were 2.5 times higher for hookah smokers, compared with cigarette smokers. Carbon monoxide can increase the risk of heart attacks, stroke and sudden death in people with heart or lung conditions, the Los Angeles Times reports.

"People want to know if it is a lesser health risk if they switch from cigarettes to smoking a water pipe on a daily basis," researcher Peyton Jacob III, PhD, said in a news release. "We found that water-pipe smoking is not a safe alternative to cigarette smoking, nor is it likely to be an effective harm-reduction strategy." The study found hookah smokers had significantly higher levels of benzene, which is associated with an increased risk of leukemia.

The study is published in Cancer Epidemiology, Biomarkers and Prevention.

Hookah bars feature water pipes that are used to smoke a blend of tobacco, molasses and fruit called shisha. Researchers say that contrary to the belief of many hookah smokers, the water in the pipe does not filter all the harmful chemicals in tobacco smoke.

The World Health Organization (WHO) noted in a report that the smoke inhaled in a typical one-hour hookah session can equal 100 cigarettes or more. The WHO report also stated that even after it has been passed through water, the tobacco smoke in a hookah pipe contains high levels of cancer-causing chemicals.