



December 3, 2013

HUFFPOST HEALTHY LIVING

Hookah Smoking No Less Harmful Than Cigarettes, Study Finds

Posted: 04/23/2013 12:04 am EDT | Updated: 06/07/2013 2:14 pm EDT

The [toxins in hookah smoke](#) may be different from that of cigarette smoke, but that doesn't make it any less harmful, according to a new study.

In fact, researchers from the University of California, San Francisco, found that urine levels of benzene byproduct -- linked with higher leukemia risk -- and breath levels of carbon monoxide levels -- which are particularly bad for people with heart risks -- were higher after smoking hookah (a water pipe), compared with smoking cigarettes. The new findings are published in the [journal Cancer Epidemiology, Biomarkers & Prevention](#).

"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," study researcher Peyton Jacob III, Ph.D., a research chemist at the university who is based at the San Francisco General Hospital and Trauma Center, said in a statement. "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."

Researchers analyzed toxins inhaled by eight men and five women, who had all smoked cigarettes and hookah before. For the study, the participants smoked an average of 11 cigarettes a day or three water pipe sessions a day.

The researchers found that the participants inhaled acrylamide (linked with damage to the nervous system), acrolein (which can irritate the eye, throat and nose), benzene, carbon monoxide and naphthalene (which can damage red blood cells) when they smoked hookah. Levels of benzene byproduct were doubled and breath levels of carbon monoxide were more than doubled after the participants smoked hookah, compared with smoking cigarettes. Researchers did find that nicotine intake was lower among the hookah-smokers than the cigarette smokers.

"You're basically burning a charcoal briquette on top of the tobacco ... and most of what you're smoking is a moist fruit preparation, which is mixed with the tobacco. It smells good and it tastes good," study researcher Neal Benowitz explained in the statement.

But "in addition to delivering toxic substances from the charcoal and tobacco, the heat causes chemical reactions in the mixture, which produce toxic volatile organic compounds (VOCs) and polycyclic aromatic hydrocarbons (PAHs)," Jacob said in the statement. "Some PAHs are highly carcinogenic and can cause lung cancer."

Just last year, California public health officials reported that [hookah smoking was increasing in the state](#), going up 40 percent from 2005 to 2008, Reuters reported. The age group most responsible for this increase is 18-to-24-year-olds.

"There is a very, very concerning misperception about the [use of hookahs among youth](#), thinking it's somehow safer. In fact, it puts you at the same risk," Dr. Ron Chapman, the director of public health in California, told Reuters.