Marijuana smoke contains higher levels of certain toxins than tobacco smoke

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Marijuana smoke contains higher levels of several toxic compounds, including ammonia and hydrogen cyanide, than tobacco smoke. Credit: U.S. Drug Enforcement Administration

Here's another reason to "keep off the grass." Researchers in Canada report that marijuana smoke contains significantly higher levels of several toxic compounds — including ammonia and hydrogen cyanide — than tobacco smoke and may therefore pose similar health risks.

Their study, termed the most comprehensive to date on the chemical content of marijuana smoke, is scheduled for the Dec. 17 issue of ACS' Chemical Research in Toxicology, a monthly journal.

David Moir and colleagues note that researchers have conducted

extensive studies on the chemical composition of tobacco smoke, which contains a host of toxic substances, including about 50 that can cause cancer. However, there has been relatively little research on the chemical composition of marijuana smoke.

In this new study, researchers compared marijuana smoke to tobacco smoke, using smoking machines to simulate the smoking habits of users. The scientists found that ammonia levels were 20 times higher in the marijuana smoke than in the tobacco smoke, while hydrogen cyanide, nitric oxide and certain aromatic amines occurred at levels 3-5 times higher in the marijuana smoke, they say.

The finding is “important information for public health and communication of the risk related to exposure to such materials,” say the researchers.

Source: ACS

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