

Growing evidence of marijuana smoke's potential dangers

August 5 2009



Smoking marijuana causes more damage to cells and DNA than smoking tobacco, scientists say. Credit: Wikimedia Commons

In a finding that challenges the increasingly popular belief that smoking marijuana is less harmful to health than smoking tobacco, researchers in Canada are reporting that smoking marijuana, like smoking tobacco, has toxic effects on cells. Their study is scheduled for the Aug. 17 issue of *ACS' Chemical Research in Toxicology*.

Rebecca Maertens and colleagues note that people often view marijuana as a "natural" product and less harmful than tobacco. As public attitudes

toward marijuana change and legal restrictions ease in some countries, use of marijuana is increasing. Scientists know that marijuana smoke has adverse effects on the lungs. However, there is little knowledge about marijuana's potential to cause lung cancer due to the difficulty in identifying and studying people who have smoked only marijuana.

The new study begins to address that question by comparing marijuana smoke vs. tobacco smoke in terms of toxicity to cells and to DNA. Scientists exposed cultured animal cells and bacteria to condensed smoke samples from both marijuana and tobacco. There were distinct differences in the degree and type of toxicity elicited by marijuana and [cigarette smoke](#). Marijuana smoke caused significantly more damage to cells and DNA than tobacco smoke, the researchers note. However, tobacco smoke caused chromosome damage while marijuana did not.

More information: "The Genotoxicity of Mainstream and Sidestream [Marijuana](#) and [Tobacco Smoke](#) Condensates", *Chemical Research in Toxicology*

Source: American Chemical Society ([news](#) : [web](#))

Citation: Growing evidence of marijuana smoke's potential dangers (2009, August 5) retrieved 27 April 2024 from <https://phys.org/news/2009-08-evidence-marijuana-potential-dangers.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.