

Marijuana Use May Double the Risk of Accidents for Drivers, Study Finds

ScienceDaily (Oct. 7, 2011) — Over 10 million people age 12 or older are estimated to have driven under the influence of illicit drugs in the prior year, according to a 2009 National Survey on Drug Use and Health. While marijuana is the most commonly detected non-alcohol drug in drivers, its role in causing crashes has remained in question.

To examine the link between marijuana use by drivers and risk of a car accident, researchers at Columbia University did a meta-analysis of nine epidemiologic studies and found that drivers who test positive for marijuana or report driving within three hours of marijuana use are more than twice as likely as other drivers to be involved in motor vehicle crashes. The researchers also found evidence that crash risk increases with the concentration of marijuana-produced compounds in the urine and the frequency of self-reported marijuana use.

According to the investigators 8 of 9 studies found that drivers who use marijuana are significantly more likely to be involved in crashes than drivers who do not. Only one small case-control study conducted in Thailand, where the prevalence of marijuana use is far lower than reported elsewhere, was the exception.

Full study findings are published online in *Epidemiologic Reviews*.

The analysis indicates that 28% of fatally injured drivers and more than 11% of the general driver population tested positive for non-alcohol drugs, with marijuana being the most commonly detected substance.

Guohua Li, MD, DrPh, professor of Epidemiology at Columbia University's Mailman School of Public Health, and senior author points out that although this analysis provides compelling evidence for an association between marijuana use and crash risk, one should be cautious in inferring causality from these epidemiologic data alone. However, "if the crash risk associated with marijuana is confirmed by further research, this is likely to have major implications for driving safety and public policy. It also would play a critical role in informing policy on the use of medical marijuana."

"Given the ongoing epidemic of drug-impaired driving and the increased permissibility and accessibility of marijuana for medical use in the U.S., it is urgent that we better understand the role of marijuana in causing car accidents."

Study co-authors from the Department of Epidemiology are Dr. Charles DiMaggio, associate professor; Joanne Brady, PhD candidate; and Keane Tzong, MPH candidate.

The research was supported by the National Institute on Alcohol Abuse and Alcoholism, National Institutes of Health.

Recommend this story on **Facebook**, **Twitter**, and **Google +1**:

Like 37

26

1

Other bookmarking and sharing tools:

| [More](#)

Story Source:

The above story is reprinted (with editorial adaptations by *ScienceDaily* staff) from materials provided by **Columbia University's Mailman School of Public Health**, via EurekAlert!, a service of AAAS.

Journal Reference:

1. M.-C. Li, J. E. Brady, C. J. DiMaggio, A. R. Lusardi, K. Y. Tzong, G. Li. **Marijuana Use and Motor Vehicle Crashes**. *Epidemiologic Reviews*, 2011; DOI: [10.1093/epirev/mxr017](https://doi.org/10.1093/epirev/mxr017)

Need to cite this story in your essay, paper, or report? Use one of the following formats:

APA

MLA

Columbia University's Mailman School of Public Health (2011, October 7). Marijuana use may double the risk of accidents for drivers, study finds. *ScienceDaily*. Retrieved October 10, 2011, from <http://www.sciencedaily.com/releases/2011/10/111006173453.htm>

Note: If no author is given, the source is cited instead.

Disclaimer: *This article is not intended to provide medical advice, diagnosis or treatment. Views expressed here do not necessarily reflect those of ScienceDaily or its staff.*