

RESEARCH NEWS

Over 40% of Deceased Drivers in Motor Vehicle Crashes Test Positive for THC, Study Shows

Six-year analysis in a major Ohio county shows no change in THC positivity after legalization

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Key Takeaways

- In a review of 246 deceased drivers, 41.9% tested positive for active THC in their blood, with an average level of 30.7 ng/mL — far exceeding most state impairment limits.
- The high rate of THC positivity remained consistent over six years and was unaffected by the state's legalization of recreational cannabis during the study period.

- Messaging around the dangers of smoking cannabis and driving needs to be stronger, authors argue.

CHICAGO — New study findings show that over 40% of drivers who died in motor vehicle collisions tested positive for active delta-9-tetrahydrocannabinol (THC) in their system, with average blood levels far exceeding those considered to cause impairment. The research highlights a significant and persistent public health risk that is unchanged by the legalization of recreational cannabis, the authors said.

The research will be presented at the American College of Surgeons (ACS) [Clinical Congress 2025](#) in Chicago, October 4-7.

Researchers analyzed coroner records from Montgomery County in Ohio from January 2019 to September 2024, focusing on 246 deceased drivers who were tested for THC following a fatal crash. When autopsies are performed, drug screening is typically part of the process. The study period included the state's legalization of recreational cannabis in 2023.

“I was surprised to see that level,” said lead author Akpofure P. Ekeh, MBBS, FACS, a professor of surgery at Wright State University in Dayton, Ohio. “An average level of 30.7 ng/mL generally means those people must have consumed marijuana at some time close to driving. This isn’t about residual use; it’s about recent consumption.”

Key Study Findings

- **High Prevalence:** 103 drivers (41.9%) overall tested positive for THC, with yearly rates ranging from 25.7% to 48.9%.
- **No Effect from Legalization:** The rate of drivers who tested positive for THC did not change significantly before or after legalization (42.1% vs. 45.2%), indicating that legal status did not influence the behavior of those who chose to drive after use.

- **Consistent Over Time:** The high rate of THC positivity showed no significant change over the six-year study period.

The study notes that blood THC levels are typically drawn by the coroner within hours of death, providing an accurate snapshot of a driver's state at the time of the crash. Most states that have set legal limits for driving range from 2 to 5 nanograms per milliliter (ng/mL) — a threshold the average level in this study (30.7 ng/mL) far exceeded.

“The messaging over the last few years has been just the push towards recreational legalization,” Dr. Ekeh noted. “The problem is that from a public health standpoint, there has not been enough emphasis on some of the **downsides and the dangers** that can occur. People should treat smoking marijuana just like they treat alcohol: don't smoke and drive.”

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Note: This research was presented as an abstract at the ACS Clinical Congress Scientific Forum. Research abstracts presented at the ACS Clinical Congress Scientific Forum are reviewed and selected by a program committee but are not yet peer reviewed.

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