

# Smoking marijuana associated with higher stroke risk in young adults

American Stroke Association Meeting Report – Abstract  
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***This news release is featured in a news conference at 7 a.m. HT, Wednesday, Feb. 6.***

## Study Highlights:

- Marijuana use may double the risk of stroke in young adults.
- The New Zealand findings are the first from a case-controlled study to indicate a potential link between marijuana and stroke.

HONOLULU, Feb. 6, 2013 —Marijuana, the most widely used illicit drug, may double stroke risk in young adults, according to research presented at the American Stroke Association's International Stroke Conference 2013.

In a New Zealand study, ischemic stroke and transient ischemic attack (TIA) patients were 2.3 times more likely to have cannabis, also known as marijuana, detected in urine tests as other age and sex matched patients, researchers said.

“This is the first case-controlled study to show a possible link to the increased risk of stroke from cannabis,” said P. Alan Barber, Ph.D., M.D., study lead investigator and professor of clinical neurology at the University of Auckland in New Zealand. “Cannabis has been thought by the public to be a relatively safe, although illegal substance. This study shows this might not be the case; it may lead to stroke.”

The study included 160 ischemic stroke/TIA patients 18-55 years old who had urine screens upon admission to the hospital. Among the patients, 150 had ischemic stroke and 10 had TIAs. Sixteen percent of patients had positive drug screens, mostly male who also smoked tobacco.

Only 8.1 percent of controls tested positive for cannabis in urine samples. Researchers found no differences in age, stroke mechanism or most vascular risk factors between marijuana users and non-users.

In previous case reports, ischemic stroke and TIAs developed hours after cannabis use, Barber said. "These patients usually had no other vascular risk factors apart from tobacco, alcohol and other drug usage."

It's challenging to perform prospective studies involving illegal substances such as cannabis because "questioning stroke and control patients about cannabis use is likely to obtain unreliable responses," Barber said.

In the study, the regional ethics committee allowed researchers to use urine samples from other hospitalized patients. But researchers knew only the age, sex and ethnicity for matching due to a lack of consent.

The study provides the strongest evidence to date of an association between cannabis and stroke, Barber said. But the association is confounded because all but one of the stroke patients who were cannabis users also used tobacco regularly.

"We believe it is the cannabis and not tobacco," said Barber, who hopes to conduct another study to determine whether there's an association between cannabis and stroke independent of tobacco use. "This may prove difficult given the risks of bias and ethical strictures of studying the use of an illegal substance," he said. "However, the high prevalence of cannabis use in this cohort of younger stroke patients makes this research imperative."

Physicians should test young people who come in with stroke for cannabis use, Barber said.

**"People need to think twice about using cannabis," because it can affect brain development and result in emphysema, heart attack and now stroke, he said.**

Co-authors are: Heidi Pridmore, M.D.; Venkatesh Krishnamurthy, M.D.; Sally Roberts, M.D.; David A. Spriggs, M.D.; Kristie Carter, Ph.D.; and Neil E. Anderson, M.D. Author disclosures and funding information are on the abstract.

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**Note: Actual presentation is 1:42 p.m. HT/6:42 p.m. ET Thursday, Feb. 7, 2013.**

All available downloadable video/audio interviews, B-roll, animation and images related to this news release are on the right column of this [link](#). Video clips with researchers/authors of studies will be added to the release links after embargo.

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