

# Marijuana users have triple the odds for leg artery disease, study suggests

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Smoking cigarettes has long been linked to peripheral artery disease

(PAD), a condition where the buildup of plaque narrows arteries and limits blood flow to the legs or arms.

Now, a new study suggests that [marijuana](#) may have a similar impact, after finding that users had three times the risk of developing PAD.

Although the study is preliminary and doesn't determine whether the impact is all from smoking weed or other popular methods of using the drug, such as eating marijuana-infused gummies, it may be a red flag for users and could be something their doctors should ask about to gauge [risk factors](#) for their patients.

"Marijuana users should seek early evaluation by a [health care](#) professional if they have symptoms such as leg pain while walking, slower/no hair growth and coldness in the leg as there seems to be an increased risk for developing PAD in this patient population," said study authors [Dr. Hirva Vyas](#) from Hackensack University Medical Center in New Jersey and [Dr. Harsh Jain](#), a resident with the Montefiore Health System in New York City.

To study this, Vyas and Jain used data from U.S. National Inpatient Samples from 2016 to 2019.

More than 620,000 of the 30 million patients were marijuana users. They had an average age of just over 37 years. Among them, more than 2,400 also had PAD.

While the marijuana users had a much greater risk of developing PAD, there wasn't a statistically significant increased risk for death or surgical intervention.

It's possible marijuana use changes how [blood clots](#) or affects peripheral vascular tone, the study authors suggested.

The study found that marijuana users were at an increased risk even after controlling for some variables, including smoking cigarettes, Vyas and Jain said.

Although the database didn't have information on the method of consumption, "it is paramount to note that the active ingredient THC is metabolized in different ways when smoked versus ingested, and may have differing risk factors associated with each," Vyas and Jain said.

About 6.5 million Americans have PAD, and nearly 50 million Americans now report using marijuana, according to the U.S. Centers for Disease Control and Prevention.

[Dr. Robert Page](#), a professor in the departments of clinical pharmacy and [physical medicine](#) at the University of Colorado Anschutz Medical Campus in Denver, cautioned that the study shows an association and not a cause-and-effect link.

Page, who was chair of the American Heart Association's 2020 statement on medical marijuana, recreational cannabis and cardiovascular health, was not involved in this study.

While the findings don't tell the complete picture, including delivery method and other health risk factors, the study does point to some particular safety signals, Page said.

Cannabis has, in past research, been shown to be linked to a number of other cardiovascular health issues in heavy smokers of the drug, Page said.

It's known that THC (the component of marijuana that makes you feel "high") affects blood platelets in a test-tube setting, Page noted.

"What it does suggest is that, to put it in layman's terms, is that THC can make platelets angry and when they get angry, they aggregate. And when they aggregate, that can lead to what we call thrombosis [a blood clot]," he explained.

Smoking cigarettes has a lot of very negative impacts on blood vessels because of the negative byproducts it releases, such as tar, not just because of nicotine, Page said.

"In individuals who are smoking cannabis, it creates the same types of carcinogens and tar," Page said.

These byproducts can harm the tissue that's surrounding the blood vessels or inside the vessels.

Both THC and cannabidiol (CBD) can also negatively affect the tone of the vasculature, Page said. THC can stimulate receptors in the brain that trigger a narrowing of blood vessels, he said.

"When you take that into account, these data are not surprising," Page said. "I think it adds to the literature, particularly in younger adults, that we're seeing an increased risk for [ischemic stroke](#) and we're also seeing an increase in early first-time stroke in younger adults, between the ages of 18 to 40, where you wouldn't think of that."

And then, he added, "it's been associated with early myocardial infarction [heart attack] in [young adults](#) to the point that we believe perhaps that smoking cannabis could be just as bad as smoking cigarettes in terms of leading to a [heart attack](#)."

Risks may be different with current THC products than they were with marijuana in the past, with the present products containing even higher levels of THC, Page said.

"The takeaway for this for providers, particularly in younger adults, is that these data suggest a red flag," Page said. "And what that means is that providers need to be asking at each patient encounter for their patients to be very transparent about cannabinoid use, no judgment involved, but we need to be using this as a risk factor for both coronary and [peripheral artery disease](#)."

The research will be presented May 18 at the Society for Cardiovascular Angiography & Interventions annual meeting, in Phoenix, Ariz. Findings presented at medical meetings should be considered preliminary until published in a peer-reviewed journal.

**More information:** The U.S. National Institutes of Health has more on [peripheral artery disease](#).

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