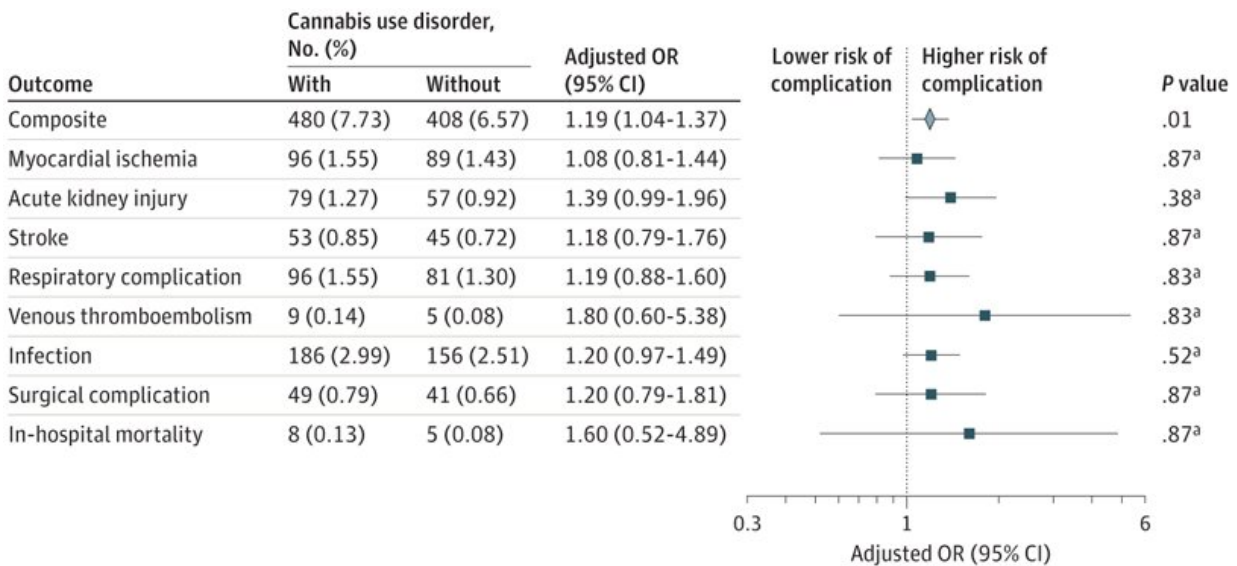


# Cannabis use associated with increased risk of surgical complications, according to study

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Analysis of the Association of Cannabis Use Disorder With Perioperative Complications After Major Elective Inpatient Surgery Analysis adjusted for confounders using a 1:1 propensity score matching model. Square markers indicate adjusted odds ratios (ORs) for the components of the composite outcome (perioperative complications), and the diamond marker indicates the primary composite outcome. Horizontal lines indicate 95% CIs.<sup>a</sup>Corrected for multiple testing and within-patient association using a step-down, bootstrap-adjustment technique. Credit: *JAMA Surgery* (2023). DOI: 10.1001/jamasurg.2023.2403

People who are regular cannabis users are at an increased risk of

experiencing complications before, during, and after surgery, according to a study by researchers with UTHealth Houston published today in *JAMA Surgery*.

Nearly 16.3 million people had a cannabis use disorder (CUD) in 2021, according to the National Institute on Drug Abuse. Defined by the Centers for Disease Control and Prevention, [cannabis use disorder](#) occurs when someone is unable to stop using cannabis even though it is causing health and social problems in their lives. Researchers found that patients with CUD are approximately 20% more likely to experience a significant postoperative complication than patients without CUD.

"A significant number of patients' first encounter with the health care system is for surgery. Most have other health-related issues like [high blood pressure](#) and diabetes that they may not have previously known about. Cannabis use falls into the category of a health-related issue. It may not be as harmless as people think; it can have a significant impact on your health," said Paul Potnuru, MD, first author of the study and assistant professor in the Department of Anesthesiology, Critical Care and Pain Medicine at McGovern Medical School at UTHealth Houston.

By using the National Inpatient Sample Database, researchers analyzed 62,110 hospitalizations from major elective inpatient surgeries performed in the United States from 2016 to 2019.

According to the study, patients with CUD had an increased risk of postoperative complications, including [myocardial ischemia](#), [acute kidney injury](#), stroke, [respiratory failure](#), [venous thromboembolism](#), hospital-acquired infection, and surgical procedure-related complications. Additionally, the cost of hospital stay was higher in patients with CUD than those without it.

With the growing rate of cannabis use and increasing potency of

cannabis products, Potnuru said there are safety concerns for patients with frequent use of cannabis who undergo surgery. Earlier this year, the American Society of Regional Anesthesia and Pain Medicine released new [guidelines](#) for screening cannabis use in all patients before surgery, and recommends informing them of the increased risk of adverse outcomes.

"From the anesthesia perspective, cannabis users may need higher doses of anesthetic medications during surgery. They can also have higher pain levels after surgery and require more opioids. Doctors must be aware of the level of a patient's cannabis usage to tailor the amount of medications given and closely monitor for complications," Potnuru said.

**More information:** Paul P. Potnuru et al, Cannabis Use Disorder and Perioperative Complications, *JAMA Surgery* (2023). [DOI: 10.1001/jamasurg.2023.2403](#)

Provided by University of Texas Health Science Center at Houston

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