

# Opioid use may increase risk of dangerous heart rhythm disorder

5 November 2018



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Opioid use appears to increase a person's risk for developing atrial fibrillation, a dangerous heart-rhythm disorder known to cause strokes, according to preliminary research to be presented in Chicago at the American Heart Association's Scientific Sessions 2018.

The results, based on analysis of [medical records](#) of more than 850,000 young and middle-aged military veterans, show [opioid](#) use increases the likelihood of atrial fibrillation by 34 percent.

Atrial fibrillation is the most common heart-rhythm disorder, marked by the chaotic quivering of the heart's upper chambers, and is one of the leading causes of strokes.

There is mounting evidence that opioids can cause cardiovascular damage, yet the mechanisms by which these medications promote heart disease remain poorly understood.

The new findings suggest that one way in which opioids could drive [cardiovascular damage](#) may be through heart-rhythm abnormalities, such as atrial

fibrillation.

"We all know that the [opioid epidemic](#) is taking an unspeakable human toll through addiction, abuse and overdose, but our findings suggest that the toll may be even greater when we consider the cardiovascular effects opioids may have," said study lead investigator Jonathan Stock, M.D., a resident physician at Yale New Haven Hospital in Connecticut.

The team said their findings—based on tracking opioid use rather than abuse—underscore the notion that opioid use, by itself, is dangerous even in the absence of abuse or full-blown addiction.

"Our results point to the importance of prescribing opioids only as a last resort," Stock said. "Opioid use, by itself, must be taken seriously and efforts should be made not only to reduce [opioid abuse](#) and overdoses but to ensure patients are being prescribed opioids only when absolutely necessary."

For their study, the researchers analyzed the medical records, including opioid prescriptions, of more than 857,000 veterans, ages 25 to 51 (59 percent white, 14 percent African American, 11 percent Hispanic and 12.7 percent female). Of those, 3,033 people (0.4 percent) had a diagnosis of atrial fibrillation. Among individuals with atrial fibrillation, nearly 29 percent had taken opioids, compared with 15 percent among those who didn't have atrial fibrillation. The risk of arrhythmia persisted even after the researchers eliminated the influence of other cardiac risk factors.

A particularly concerning finding was the occurrence of [atrial fibrillation](#)—a condition that becomes more common with age and peaks after age 65—in a relatively young, healthy group of people. The average age of those participating in the study was 38 years.

While the study did not look at the biological mechanisms by which opioids can induce heart arrhythmias, the researchers say one possible explanation could be that opioids can lead to or exacerbate preexisting sleep-disordered breathing and obstructive sleep apnea, a known risk factor for cardiac rhythm disturbances. The researchers caution that further studies are needed to elucidate the precise mechanism.

Provided by American Heart Association

APA citation: Opioid use may increase risk of dangerous heart rhythm disorder (2018, November 5) retrieved 15 September 2019 from <https://medicalxpress.com/news/2018-11-opioid-dangerous-heart-rhythm-disorder.html>

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