

# Women with diabetes at increased risk for irregular heart rhythm

28 September 2009

Diabetes increases by 26 percent the likelihood that women will develop atrial fibrillation (AF), a potentially dangerous irregular heart rhythm that can lead to stroke, heart failure, and chronic fatigue. These are the findings of a new Kaiser Permanente study, published in the October issue of *Diabetes Care*, a journal of the American Diabetes Association.

While other studies have found that patients with [diabetes](#) are more likely to have AF, this is the first large study—involving nearly 35,000 Kaiser Permanente patients over the course of seven years—to isolate the effect of diabetes and determine that it is an independent risk factor for women.

“The most important finding from our study is that women with diabetes have an increased risk of developing this [abnormal heart rhythm](#),” said the study’s lead author, Greg Nichols, PhD, investigator at the Kaiser Permanente Center for Health Research in Portland, Ore. “Men with diabetes are also at higher risk, but the association between the two conditions is not as strong. For men, obesity and high blood pressure are bigger risk factors from diabetes.”

“AF is the most common arrhythmia in the world, and diabetes is one of the most common and costly health conditions. Our study points out that there is a connection between these two growing epidemics—one we should pay closer attention to, especially among women,” says Sumeet Chugh, MD, co-author and associate director of the Cedars-Sinai Heart Institute in Los Angeles. “The gender differences need to be looked at more closely because they could have significant implications for how we treat diabetes in men and women.”

Atrial fibrillation occurs when the two upper chambers of the heart beat irregularly and too fast, causing blood to pool and clot. If the clot travels out of the [heart](#) and becomes lodged in an artery

or in the brain, it can cause a stroke. About 2.2 million Americans are diagnosed with AF; however, many more people have the condition but don’t know it. Diabetes affects more than 23 million Americans—and, according to the study, nearly 4 percent, or 1 million, have atrial fibrillation.

The study involved 17,372 patients in Kaiser Permanente’s diabetes registry in Oregon and Washington and an equal number of non-diabetic patients, matched for age and sex. Researchers used Kaiser Permanente HealthConnect®, the world’s largest civilian electronic health records system, to identify the non-diabetic patients. The two groups were followed for an average of 7.2 years until Dec., 31, 2008, or until they died or left the health plan. At the start of the study 3.6 percent of the patients with diabetes had AF, vs. only 2.5 percent of the non-diabetic patients—a difference of 44 percent. During the study period, diabetics were more likely than non-diabetics to develop AF. But after controlling for other factors like obesity, high blood pressure and age, the increased risk was only significant among women. [Women](#) with diabetes were 26 percent more likely than their non-diabetic counterparts to develop AF.

Source: Kaiser Permanente ([news](#) : [web](#))

APA citation: Women with diabetes at increased risk for irregular heart rhythm (2009, September 28) retrieved 5 May 2021 from <https://medicalxpress.com/news/2009-09-women-diabetes-irregular-heart-rhythm.html>

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