

Moderate alcohol use associated with increased risk for atrial fibrillation

14 July 2014



Credit: Kevin Casper/public domain

Even in moderation, consumption of wine and hard liquor may be a risk factor for atrial fibrillation, an abnormally fast heartbeat that can lead to stroke, heart failure and dementia, according to new research published today in the *Journal of the American College of Cardiology*. The research did not identify a similar risk for moderate consumption of beer.

Researchers in Sweden studied 79,016 adults, ages 45 to 83, who completed an extensive questionnaire about food and [alcohol consumption](#) in 1997. The researchers followed the participants for up to 12 years through national registries in Sweden and found 7,245 cases of [atrial fibrillation](#).

Consistent with previous research, the study found an association between high alcohol consumption, defined as more than three drinks per day, and increased risk for atrial fibrillation and a strong association with [binge drinking](#). Previous studies had not reported findings on moderate alcohol use.

The Swedish study showed an increase in risk for atrial fibrillation with moderate drinking of wine and liquor. Moderate drinking was defined as one to three drinks per day.

The researchers also conducted a complementary meta-analysis, combining their results with six similar prospective research studies to study the dose response. The complete analysis included 12,554 cases of atrial fibrillation. The meta-analysis, which didn't differentiate between types of alcohol, showed the risk for atrial fibrillation increased 8 percent with each additional drink per day.

While many studies have shown that light to [moderate alcohol consumption](#) can have beneficial outcomes on the heart, such as reducing ischemic heart disease and stroke, it is important to balance these benefits against the potential risk of developing atrial fibrillation, said Susanna C. Larsson, Ph.D., Associate Professor, Unit of Nutritional Epidemiology, Institute of Environmental Medicine at the Karolinska Institutet in Stockholm, and lead author of the study.

The study showed that binge drinking—consuming five or more drinks on a single occasion—was associated with an increased risk for drinkers of wine and liquor. Excluding binge drinkers from the analysis reduced the risk only slightly for heavy and [moderate drinkers](#) of wine and liquor.

While the association between moderate wine and liquor consumption and increased atrial fibrillation risk was strong, the Swedish study did not find such a relationship with atrial fibrillation and moderate beer consumption or even binge drinking of beer.

"We have no explanation for the lack of association with beer consumption," Larsson said. "It is likely that beer is consumed more regularly during the week, whereas wine and liquor is more often consumed during weekends only. Adverse effects

of alcohol on atrial fibrillation risk may be less pronounced if alcohol consumption is spread out over the week compared with consumption of larger amounts of alcohol during a few days per week."

Prospective studies, which follow a group of participants over time, can identify associations, or conditions that exist together, but an association does not necessarily mean moderate alcohol use causes atrial fibrillation. There could be other reasons atrial fibrillation is seen more often in drinkers. Still investigators identified several factors that could explain the relationship between alcohol consumption and atrial fibrillation. Past studies have shown an association between alcohol consumption and depression of heart function, cardiac condition abnormalities, dilated cardiomyopathy with supraventricular arrhythmias and other conditions that could lead to atrial fibrillation.

Provided by American College of Cardiology

APA citation: Moderate alcohol use associated with increased risk for atrial fibrillation (2014, July 14) retrieved 14 October 2022 from <https://medicalxpress.com/news/2014-07-moderate-alcohol-atrial-fibrillation.html>

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