

Moderate alcohol use linked to heart chamber damage, atrial fibrillation in new study

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Credit: University of California, San Francisco

Enjoy a glass of wine with dinner or a nightcap before bed, but don't count on their heart benefits.

A new study by UC San Francisco researchers found that even moderate [alcohol](#) consumption may change the structure of the [heart](#) in ways that increase the risk of [atrial fibrillation](#).

"There's growing evidence that [moderate alcohol intake](#) may be a risk

factor for atrial fibrillation, the most common heart rhythm disturbance in the world, but the mechanism by which alcohol may lead to atrial fibrillation is unknown," said Gregory Marcus, MD, endowed professor of atrial fibrillation research at UCSF and senior author of the study published Sept. 14, 2016, in the *Journal of the American Heart Association*.

Possible Pathway Between Alcohol and Atrial Fibrillation

Marcus and colleagues looked at damage to the left atrium of the heart as a possible pathway between alcohol and atrial fibrillation. Atrial fibrillation is a known risk factor for stroke. The irregular pumping of blood can lead to blood clots, which may travel to the brain and cause stroke.

The researchers evaluated data from more than 5,000 adults collected over several years in the Framingham Heart Study, including echocardiograms, medical history and self-reported alcohol intake. The study participants, mostly white and in their 40s to 60s, reported on average just over one drink per day. The overall rate of atrial fibrillation in the group was 8.4 cases per 1,000 people per year – meaning over a 10-year period, eight out of 100 people were likely to develop atrial fibrillation.

Every additional drink per day was associated with a 5 percent increase in the yearly risk. Every additional drink per day also was associated with a statistically significant 0.16 millimeter enlargement of the [left atrium](#), highlighting a possible site of physical damage caused by drinking.

Complex Relationship Between Alcohol and Heart

Health

The new findings shed light on the complex relationship between alcohol and heart health – one that likely precludes blanket advice on drinking habits, said Marcus.

Research has shown that moderate drinking can reduce the risk of heart attack while increasing the risk of atrial fibrillation. Marcus's team captured this conundrum in a study [published earlier this year](#) looking at hospital admissions in dry and wet counties of Texas. They found that patients in counties permitting alcohol sales were more likely to have atrial fibrillation but less likely to have heart attacks and congestive heart failure.

Alcohol's abilities to protect and harm the heart likely operate through different mechanisms and vary from person to person, said Marcus. The work in his group seeks to decipher these mechanisms, which will inform therapies for heart conditions and may ultimately enable physicians to give personalized advice to patients.

"I'm constantly trying to remind people that there are various forms of heart disease and not all are related to heart attack," said Marcus, who is also a practicing cardiologist. "Atrial fibrillation is growing in importance as our success in preventing [heart attack](#) grows."

He added that one pattern, revealed by UCSF's [Health eHeart Study](#), is clear – people who believe alcohol is good for the heart [tend to drink more](#).

More information: David D. McManus et al. Alcohol Consumption, Left Atrial Diameter, and Atrial Fibrillation, *Journal of the American Heart Association* (2016). [DOI: 10.1161/JAHA.116.004060](https://doi.org/10.1161/JAHA.116.004060)

Provided by University of California, San Francisco

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