

## No link between coffee consumption and common type of irregular heartbeat

September 22 2015



Credit: George Hodan/public domain

There is no association between coffee consumption and an increased risk of atrial fibrillation, according to research published in the open access journal *BMC Medicine*. The research includes a meta-analysis of four other studies, making it the largest study its kind, involving nearly 250,000 individuals over the course of 12 years.



Moderate coffee consumption has been associated with a reduced risk of <u>coronary heart disease</u> and stroke. Its association with atrial fibrillation (AF), a heart condition that causes an irregular and often abnormally fast heart rate, has been unclear.

AF is the most frequent form of <u>irregular heartbeat</u>, causing a substantially increased risk of stroke, heart failure and all-cause mortality. It has previously been speculated that high coffee consumption may increase the risk of developing atrial fibrillation.

Lead author Susanna Larsson, from Karolinska Institutet, Sweden, said: "This is the largest prospective study to date on the association between coffee consumption and risk of atrial fibrillation. We find no evidence that high consumption of coffee increases the risk of <u>atrial fibrillation</u>. This is important because it shows that people who like coffee can safely continue to consume it, at least in moderation, without the risk of developing this condition."

The study population comprised 41,881 men and 34,594 women who, in 1997, reported how many cups of coffee they consumed and were followed up for 12 years. There were 4,311 and 2,730 incident AF cases in men and women, respectively, in the two cohorts. The median daily coffee consumption was three cups among both men and women.

In their analysis, the researchers found that coffee consumption was not associated with AF incidence in these cohort studies, even in more extreme levels of coffee consumption.

This lack of association was confirmed in a follow-up meta-analysis that included the present two cohorts and four other prospective studies, giving a total of 10,406 cases of AF diagnosed among 248,910 individuals.



As the number of studies of coffee consumption and AF risk is quite limited, the authors say that more large prospective studies investigating this relationship are needed.

In sex-specific analyses, coffee consumption was associated with a nonsignificant increased risk of AF in men, but a non-significant decreased risk of AF in women. Whether men may be more sensitive to a high coffee or caffeine intake warrants further study, say the authors.

Although available evidence does not indicate that <u>coffee consumption</u> increases the risk of developing AF specifically, coffee may still trigger other forms of irregular heartbeat. Data in the study suggests that some individuals with AF at the start of the study may have quit drinking coffee or lowered their consumption because of an arrhythmic-triggering effect.

While the authors adjusted for major AF risk factors, they warn of possible bias and confounding factors that may have influenced their results, and highlight the limits of self-reported data. All studies were conducted in either Sweden or the US, thus reducing the generalizability of the results.

**More information:** Coffee consumption is not associated with increased risk of atrial fibrillation: results from two prospective cohorts and a meta-analysis, Susanna C. Larsson, Nikola Drca, Mats Jensen-Urstad and Alicja Wolk, *BMC Medicine* 2015. <u>DOI:</u> 10.1186/s12916-015-0447-8

Provided by BioMed Central

Citation: No link between coffee consumption and common type of irregular heartbeat (2015,



September 22) retrieved 21 November 2023 from <u>https://medicalxpress.com/news/2015-09-link-coffee-consumption-common-irregular.html</u>

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