# High-salt diet may increase the risk of developing heart arrhythmia

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Scientists have uncovered the first evidence to associate dietary salt intake with the risk of developing a common heart condition that affects millions of people worldwide, in a new study published in the Annals of

Medicine.

Atrial fibrillation (AF) is the most common heart arrhythmia condition, affecting around one million people in the UK alone. People with the condition are at an increased risk of a stroke and in extreme cases, it can also lead to heart failure. So identifying a high salt diet as an avoidable risk factor would present new opportunities to prevent people from developing AF and other cardiovascular conditions.

Excessive salt consumption is already known to increase the risk of cardiovascular disease – especially high blood pressure, myocardial infarction and stroke.

In this study, a team of researchers followed a group of 716 middle-aged men and women over an average of 19 years to explore if a high dietary salt intake is also a risk factor for atrial fibrillation. The team identified 74 individuals diagnosed with new-onset AF and compared incidence rates based on estimates of people's daily salt intake.

The researchers discovered a higher incidence of AF in those who consumed the highest levels of salt compared to those with the lowest intake. Salt consumption was also independently associated with the risk of developing the condition after considering several other risk factors – including age, body mass index (BMI), blood pressure and smoking.

Lead author Tero Pääkkö of the University of Oulu, Finland, said: "This study provides the first evidence that dietary salt may increase the risk of new-onset atrial fibrillation, adding to a growing list of dangers from excessive salt consumption on our cardiovascular health.

"Although further confirmatory studies are needed, our results suggest that people who are at an increased risk of atrial fibrillation may benefit from restricting salt in their diet."

The likelihood of developing AF increases with age, affecting around 7 in 100 people aged 65 or over. So the numbers developing the condition are predicted to rise dramatically in coming years as people continue to live longer. Confirming an association with high dietary salt intake would offer new ways for policymakers to reduce its incidence through public health interventions.

"With estimates suggesting that over three-quarters of salt consumed is already added in processed foods, reducing salt intake at a population level could have a hugely beneficial impact on new-onset atrial fibrillation and overall cardiovascular disease," explains Pääkkö.

But the authors emphasise that their findings are preliminary and further confirmatory studies will be needed. Only those people who needed emergency care were identified as having AF, which may be an underestimate. They also relied on estimating salt intake from information collected in a 7-day food diary at the start of the study, which may not be 100% accurate and assumes that people's food habits didn't change over the follow-up period.

**More information:** Tero Juho Wilhelm Pääkkö et al. Dietary sodium intake is associated with long-term risk of new-onset atrial fibrillation, *Annals of Medicine* (2018). DOI: 10.1080/07853890.2018.1546054

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