

Omega-3 linked to lower heart arrhythmia risk

Fatty acids in fish may stabilize excitability of heart muscle in older adults, professor says

BY KERRY GRENS, REUTERS FEBRUARY 3, 2012



Older adults who had the highest blood levels of omega-3 fatty acids, most commonly found in fish, were 30 per cent less likely to later develop an irregular heart-beat than peers with the lowest blood levels of omega-3s, according to a U.S. study.

Up to nine per cent of North Americans will develop atrial fibrillation by the time they reach their 80s, according to some estimates. The heart rhythm abnormality can lead to stroke and heart failure.

There are few treatments for the condition and they largely centre on preventing strokes with blood-thinning drugs.

"A 30-per-cent lower risk of the most common chronic arrhythmia in the United States population is a pretty big effect," said Dariush Mozaffar-ian, senior author of the study and a professor at the Harvard School of Public Health.

Some previous studies have suggested that people who eat a lot of fish have a lower risk of developing atrial fibrillation to begin with, but others haven't found the same link.

The omega-3 fatty acids measured in the new study, which was published in the journal *Circulation*, were eicosapen-taenoic acid (EPA), docosap-entaenoic acid (DPA) and doco-sahexaenoic acid (DHA). They are found in oily fish and some enriched foods, such as eggs, as well as in fish oil supplements.

The earlier studies relied on questionnaires about how much fish people ate, which can only estimate the amount of omega-3s they ingested, Mozaffarian noted.

"Any given fish species can vary in its omega-3s by ten-fold," he said.

To get a more accurate measurement of how much fish oil people in the study ingested, the researchers sampled blood from more than 3,300 adults over age 65. Over the next 14 years, they tracked the participants' health and found that 789 developed atrial fibrillation.

Those with the top 25 per cent omega-3 levels in their blood-streams at the beginning of the study were about 30 per cent less likely to end up with the arrhythmia compared to those with the bottom 25 per cent blood levels.

"These are meaningful reductions in risk," said Alvaro Alonso, a professor at the University of Minnesota School of Public Health, who was not involved in the study.

A 30-per-cent reduction in risk would mean that instead of 25 out of every 100 people developing a condition, only about 17 of every 100 would.

Of the three omega-3 fatty acids, high DHA levels were linked to a 23 per cent lower risk for atrial fibrillation, while EPA and DPA were not tied to any reduced risk.

Alonso cautioned that the study doesn't prove eating fish or taking omega supplements are responsible for the lower rate of atrial fibrillation, but said there is some idea that the fatty acids found in fish could work by stabilizing the excitability of heart muscle cells.

The results warrant further studies that experiment with how fish oil might be used as a potential preventive measure against the arrhythmia, he said.

© Copyright (c) The Vancouver Sun