

Couple of weekly portions of oily fish can help ward off stroke

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Eating at least two servings of oily fish a week is moderately but significantly associated with a reduced risk of stroke, finds a study published in *British Medical Journal*.

But taking fish oil supplements doesn't seem to have the same effect, say the researchers.

Regular consumption of fish and long chain omega 3 fatty acids has been linked with a reduced risk of coronary heart disease and current guidelines recommend eating at least two portions of fish a week, preferably <u>oily fish</u> like mackerel and <u>sardines</u>. But evidence supporting a similar benefit for stroke remains unclear.

So an international team of researchers, led by Dr. Rajiv Chowdhury at Cambridge University and Professor Oscar H. Franco at Erasmus MC Rotterdam, analysed the results of 38 studies to help clarify the association between fish consumption and risk of stroke or mini-stroke (transient ischaemic attack or TIA). Collectively, these conditions are known as cerebrovascular disease.

The 38 studies involved nearly 800,000 individuals in 15 countries and included patients with established cardiovascular disease (secondary prevention studies) as well as lower risk people without the disease (primary prevention studies). Differences in study quality were taken into account to identify and minimise bias.



Fish and long chain omega 3 fatty acid consumption was assessed using dietary questionnaires, identifying markers of omega 3 fats in the blood, and recording use of fish oil supplements. A total of 34,817 cerebrovascular events were recorded during the studies.

After adjusting for several risk factors, participants eating two to four servings a week had a moderate but significant 6% lower risk of cerebrovascular disease compared with those eating one or fewer servings of fish a week, while participants eating five or more servings a week had a 12% lower risk.

An increment of two servings per week of any fish was associated with a 4% reduced risk of cerebrovascular disease. In contrast, levels of omega 3 fats in the blood and fish oil supplements were not significantly associated with a reduced risk.

Several reasons could explain the beneficial impact of eating fish on vascular health, say the authors. For example, it may be due to interactions between a wide range of nutrients, like vitamins and essential amino acids, commonly found in fish. Alternatively, eating more fish may lead to a reduction in other foods, like red meat, that are detrimental to vascular health. Or higher fish intake may simply be an indicator of a generally healthier diet or higher socioeconomic status, both associated with better vascular health.

The differences seen between white and oily fish may be explained by the way they are typically cooked (white fish is generally battered and deep fried, adding potentially damaging fats).

Although there's a possibility that some other unmeasured (confounding) factor may explain their results, the authors conclude that "they reinforce a potentially modest beneficial role of fish intake in the cause of cerebrovascular disease."



In addition, they say their findings are in line with current dietary guidelines that encourage <u>fish consumption</u> for all; and intake of fish oils to people with pre-existing or at high risk of heart disease. They also support the view that future nutritional guidelines should be principally "food based."

In an accompanying editorial, authors from the Division of Human Nutrition at Wageningen University suggest that although it is "reasonable" to advise patients that eating one or two portions of <u>fish</u> per week could reduce the risk of <u>coronary heart disease</u> and stroke, any benefit of long chain omega 3 fatty acid supplementation is likely to be small. They say it is possible, however, that patients with additional risk factors such as diabetes may benefit.

More information: www.bmj.com/cgi/doi/10.1136/bmj.e6698

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