

Oily fish may benefit heart rhythms, more support

5/14/2007 - A diet rich in omega-3-rich has beneficial effects on heart rhythms, and may offer protection against fatal abnormal heart rhythms, suggests a study from Greece.

[Omega-3](#) fatty acids have been linked to a wide-range of health benefits, including reduced risk of cardiovascular disease (CVD) and certain cancers, good development of a baby during pregnancy, joint health, and improved behaviour and mood.

However, a meta-analysis last year claimed that there is no evidence linking omega-3 intake and improvements in [heart health](#), conclusions that were later slammed by a UK-based fish group.

And the new study extends previous research on fish oil and heart health. It concludes that fish consumption is linked to an improvement of the electrical properties of heart cells (electrophysiology)

"Long-term consumption of fish is associated with lower QT interval in free-eating people without any evidence of cardiovascular disease. Thus, fish intake seems to provide anti-arrhythmic protection at a population level," wrote the authors.

The QT interval is a measure of the the heart's electrical cycle and is defined as the time between the start of the Q wave and the end of the T wave.

The researchers enrolled 3042 people (1514 men and 1528 women) with an average age of 45. The diets were evaluated using a self-administered, validated food frequency questionnaire. Daily or weekly intake of 156 different foods was recorded, along with alcohol consumption and physical activity.

The subjects also underwent electrocardiography to measure various heart rate parameters.

Chrysohoou and co-workers report that people who ate more than 300 grams of fish per week had significantly lower QT scores (13.6 per cent) than people who did not eat fish.

After adjusting the results for various confounding factors such as age, sex, physical activity status, BMI, smoking habits and intake of nuts, the reduction in QT scores associated with high fish consumption rose to 29.2 per cent, compared to non-consumers.

Lower QT scores indicates a lower resting heart rate. Other studies have linked a higher resting heart rate to an increased risk of sudden death, and so lowering the heart rate is a significant health benefit.

Similar effects were observed in a study by Harvard researchers who reported that the mechanism behind the benefits may be the effects of the omega-3 fatty acids

on the flow of sodium and calcium in the ion channels. These are associated with electrical signals in cells.

More studies are needed to confirm these findings.

The risk of pollutants from oily fish, such as methyl mercury, dioxins, and polychlorinated biphenols (PCBs) have led some to advocate a reduction in fresh fish intake, despite others advising that the benefits of fish consumption outweigh the risks.

Such conflicting views on fish intake have seen the number of omega-3 enriched or fortified products on the market increase as consumers seek omega-3s from 'safer' sources. Most extracted fish oil is molecularly distilled and steam deodorised to remove contaminants.

But fears about dwindling fish stocks have pushed some industries to start extracting omega-3s from algae. Indeed, companies such as Martek Biosciences and Lonza are already offering algae-derived omega-3 DHA as a dietary supplement.