

# Omega-3 may help survival rates for heart patients: study

01-Sep-2008 - **A daily supplement of omega-3 polyunsaturated fatty acids may reduce mortality and admission to hospital for cardiovascular reasons in patients with heart failure, says a new study.**

Mortality rates were reduced by nine per cent, and hospital admission for cardiovascular reasons was cut by eight per cent on heart failure patients assigned to receive omega-3, compared to placebo.

Italian researchers recruited heart failure patients from across the country to take part in the Gruppo Italiano per lo Studio della Sopravvivenza nell'Infarto miocardico (GISSI). The results are published online ahead of print in *The Lancet*.

*"We have shown that omega-3 PUFA [...] is effective and safe in a large population of patients with heart failure of any cause, who are receiving standard clinical care provided in hospitals and ambulatory facilities in Italy,"* wrote the researchers.

*"Since we invited all cardiology centres operating in Italy to participate in this trial, and most did so, the results indicate what is likely to happen in the real world during the course of several years of polipharmacy care."*

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.

While several epidemiological and experimental studies have reported beneficial effects of omega-3 fatty acids on cardiovascular disease, the researchers noted that no large-scale trials have investigated the efficacy of omega-3 fatty acids in heart failure.

## Study details

In order to fill in these gaps, the Italian researchers recruited 6,975 patients with chronic heart failure, and randomly assigned them to receive either a daily omega-3 supplement (850 to 882 mg eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) as ethyl esters in the average ratio of 1:1.2) or placebo for 3.9 years.

At the end of the randomised, double-blind, placebo-controlled trial, 955 deaths from all causes were documented in the omega-3 group, while 1014 deaths were recorded in the placebo group. This equated to a nine per cent relative risk reduction in the omega-3 group.

Moreover, a lower proportion of patients in the omega-3 group (1981 people, or 57 per cent) were admitted to hospital for cardiovascular reasons than in the placebo group (2053 people or 59 per cent). This equated to a relative reduction of eight per cent in the omega-3 group, said the researchers.

*"Our study shows that the long-term administration of 1g per day omega-3 PUFA was effective in reducing both all-cause mortality and admissions to hospital for cardiovascular reasons,"* concluded the researchers.

In an accompanying comment, Dr Gregg Fonarow from Ahmanson-UCLA Cardiomyopathy Center, Los Angeles said: *"Although the improvements in clinical outcomes were modest, they were additive to those of other therapies that are standard of care in heart failure. The therapy was safe and very well tolerated."*

*"Whilst questions remain about mechanisms of action, optimum dosing, and formulation, supplementation with n-3 polyunsaturated fatty acids should join the short list of evidence-based life-prolonging therapies for heart failure."*