

Omega-3 may boost blood vessel elasticity

21/09/2007 - **Supplementation with omega-3 fatty acids may improve the elasticity of blood vessels and improve overall cardiovascular health, reports a new study from China.**

The study, published in the *European Journal of Clinical Nutrition*, adds to an ever growing body of science linking [omega-3](#) fatty acids with improved heart health, adding to previous reports on improved heart rhythms, reduced risk of a second heart attack, and reduced risk of [cardiovascular disease](#).

Researchers recruited 52 overweight people with increased blood pressure to take part in the double-blind, randomized and placebo-controlled clinical study.

Participants were assigned to receive daily fish oil capsules (three grams per day of fish oil) or placebo for eight weeks, with arterial [elasticity](#) determined using a CVProfilor DO-2020. The researchers report that fish oil supplementation improved large artery elasticity, compared to placebo (15.51.5 versus 12.83.7 ml.mm.Hg-1 x 10, respectively).

However, no significant improvements were observed between the groups when small artery elasticity, blood pressure, or so-called pulse pressure were measured.

"Fish oil supplementation certainly would improve large arterial elasticity but no effect [was observed] on blood pressure in overweight hypertensive patients," wrote the authors.

Previous studies have also reported improvements in blood vessel elasticity, but such changes have also reportedly been accompanied by reductions in blood pressure and levels of inflammatory markers.

"Further study is needed to confirm the benefits of fish oil supplementation on age-related increases in arterial stiffness," concluded the researchers.

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.

But some much publicised studies, and in particular a recent meta-analysis (*British Medical Journal*, doi: [bmj.38755.366331.2F](#)), have claimed that there was no evidence linking omega-3 intake and improvements in heart health.

However, the BMJ review has been criticised as flawed, with experts quoting an exclusion of biomarker studies and relevant cohort studies, inclusion of a study with "questionable scientific integrity", and combining studies from vastly different population groups.