

# **A study has demonstrated that omega-3 rich foods improve post-heart attack prognosis**

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A team of researchers from the Germans Trias i Pujol Hospital and Research Institute (IGTP) and the Hospital del Mar Medical Research Institute (IMIM) has shown that regularly consuming foods rich in

omega-3 fatty acids, from both animal and vegetable origins, strengthens the heart's membranes and helps improve the prognosis in the event of a myocardial infarction.

To arrive at these conclusions, they used data from 950 patients. The omega-3 levels in the blood of these individuals were determined when they were admitted to hospital to be treated for the [heart](#) attack. This measurement accurately indicates how much of these fats the patients had eaten in the weeks prior to the sampling, in other words, before the heart attack. The patients were monitored for three years after being discharged, and the researchers observed that having high levels of omega-3 in the blood at the time of the infarction, which had been consumed in the weeks leading up to the heart attack, was associated with a lower risk of complications. The results of the study have just been published in the prestigious *Journal of the American College of Cardiology*.

## **The benefits of omega-3 fatty acids**

Eicosapentaenoic acid (EPA) is a type of omega-3 fatty acid found in oily fish. When we eat oily fish on a regular basis, EPA is incorporated into the phospholipids in the membranes of the cardiomyocytes, protecting them from a wide variety of heart stressors. This enrichment of the myocardial membranes limits the damage caused in the event of a heart attack.

The major novelty of this study is that it also focused on another omega-3 fatty acid, of vegetable origin, known as alpha-linolenic [acid](#) (ALA). This fat, which is found in walnuts as well as soybeans and their derivatives, is far less well studied than marine omega-3s. The researchers observed that EPA and ALA do not compete, but are complementary to one another. While high levels of EPA are associated with a lower risk of hospital readmission from cardiovascular causes,

higher levels of ALA are associated with a reduced risk of death.

Antoni Bayés, clinical director of cardiology at Germans Trias, says, "Incorporating marine and vegetable omega-3s into the diet of patients at risk of cardiovascular disease is an integrative strategy for improving both their quality of life and prognosis if they suffer a heart attack."

Aleix Sala, a researcher at IMIM-Hospital del Mar and responsible for the blood testing, says, "The article is important because it highlights the complementary (and non-competitive) effects of the two types of omega-3."

**More information:** Iolanda Lázaro, Ferran Rueda, Germán Cediél, Emilio Ortega, Cosme García-García, Aleix Sala-Vila, Antoni Bayés-Genís. Circulating Omega-3 Fatty Acids and Incident Adverse Events in Patients With Acute Myocardial Infarction. *Journal of the American College of Cardiology*.

Provided by IMIM (Hospital del Mar Medical Research Institute)

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