Body

# Fish oil and omega-3: why capsules did not repeat the benefit of fish

*The VITAL trial of omega-3 (2019), the contrasting results of REDUCE-IT and STRENGTH, the debate over the placebo and what remains as safe advice*

3 November 2026 / 2 min read

*Translated from the Albanian original by the editors.*




Original illustration by the lexoshpejt editors. Not a historical photograph or object.

In the 1970s Danish researchers noticed that the Inuit of Greenland, who ate a lot of fish and marine mammals, had few heart attacks. This led to the idea that **omega-3** fatty acids, especially the EPA and DHA found in oily fish, protect the heart. For decades fish oil capsules became one of the best-selling supplements.

## The VITAL trial

The same VITAL trial that tested vitamin D also tested omega-3. Over 25,000 healthy adults in the United States took 1 gram of omega-3 or a placebo every day for about five years. The results, published in 2019 by JoAnn Manson and colleagues, showed that omega-3 did not significantly reduce the number of major cardiovascular events or of cancers. Some secondary analyses suggested a reduction in heart attacks, but this was not the main result.

## REDUCE-IT and STRENGTH

The same year, the **REDUCE-IT** trial reported a very different result. Patients with high triglycerides, already taking statins, received a purified form of EPA, icosapent ethyl, at a high dose, 4 grams a day. Cardiovascular events fell by about 25 per cent. But the placebo in this trial was mineral oil, and some researchers suspected it may have slightly worsened the control group's condition, making the difference look larger.

The **STRENGTH** trial, with another high-dose omega-3 mixture and corn oil as placebo, was stopped in 2020 because it showed no benefit. In addition, some trials have found that high doses are linked with a slightly higher risk of atrial fibrillation, a heart rhythm disorder.

> *A food is not just one molecule. When we take one ingredient out of fish and put it in a capsule, we may lose something along the way.*

## What remains

- For most healthy people, omega-3 capsules have not shown a clear benefit for the heart.
- For some high-risk patients, a doctor may recommend specific treatments.
- Eating fish remains a good habit. Many guidelines recommend fish about twice a week, especially oily fish such as sardines, mackerel or salmon.

## Advice

1. **Choose fish before capsules.** Tinned sardines are a cheap source.
2. **Do not take high doses without medical advice,** especially if you take blood-thinning medicines.
3. **Beware of adverts** that promise protection for the heart, brain and joints all at once.

## Sources

Manson, J. E., Cook, N. R., Lee, I.-M. et al. (2019). Marine n–3 fatty acids and prevention of cardiovascular disease and cancer. *New England Journal of Medicine*, 380, 23–32. PubMed

Bhatt, D. L., Steg, P. G., Miller, M. et al. (2019). Cardiovascular risk reduction with icosapent ethyl for hypertriglyceridemia. *New England Journal of Medicine*, 380, 11–22. PubMed

Nicholls, S. J., Lincoff, A. M., Garcia, M. et al. (2020). Effect of high-dose omega-3 fatty acids vs corn oil on major adverse cardiovascular events in patients at high cardiovascular risk: The STRENGTH randomized clinical trial. JAMA, 324(22), 2268–2280. PubMed

Read online: https://www.lexoshpejt.com/en/article/omega-3-fish-oil