

New study finds combination of omega-3s in popular supplements may blunt heart benefits

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New research from the Intermountain Healthcare Heart Institute in Salt Lake City finds that higher EPA blood levels alone lowered the risk of major cardiac events and death in patients, while DHA blunted the cardiovascular benefits of EPA. Higher DHA levels at any level of EPA, worsened health outcomes. Credit: Intermountain Healthcare

Doctors often recommend Omega-3s to help patients lower their cholesterol and improve heart health. Those Omega-3s can come from fatty fish like salmon and mackerel, or supplements that often contain a combination of the acids eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA).

Now, new research from the Intermountain Healthcare Heart Institute in Salt Lake City finds that higher EPA blood levels alone lowered the risk of major cardiac events and death in patients, while DHA blunted the cardiovascular benefits of EPA. Higher DHA levels at any level of EPA, worsened health outcomes.

Results of the Intermountain study, which examined nearly 1,000 patients over a 10-year-period, will be presented virtually at the 2021

American College of Cardiology's Scientific Session on Monday, May 17.

"The advice to take Omega-3s for the good of your heart is pervasive, but previous studies have shown that science doesn't really back this up for every single omega-3," said Viet T. Le, MPAS, PA, researcher and cardiovascular physician assistant at the Intermountain Heart Institute and principal investigator of the study. "Our findings show that not all Omega-3s are alike, and that EPA and DHA combined together, as they often are in supplements, may void the benefits that patients and their doctors hope to achieve."

In this study, Intermountain researchers used the INSPIRE registry, an Intermountain Healthcare database started in 1993 that has more than 35,000 blood samples from nearly 25,000 patients.

Through INSPIRE, researchers identified 987 patients who underwent their first documented coronary angiographic study at Intermountain Healthcare between 1994 and 2012. From those [blood samples](#), the circulating levels of EPA and DHA in their blood was measured. Researchers then tracked those patients for 10 years, looking for major cardiac adverse events, which included [heart attack](#), stroke, heart failure requiring hospitalization or death.

They found that patients with the highest levels of EPA had reduced risk of major heart events. When evaluating how EPA and DHA affect one another, they found that higher DHA blunts the benefit of EPA. In particular, they also found that those patients with higher levels of DHA than EPA, were more at risk for heart problems.

Le said that these results raise further concerns about the use of combined EPA/DHA, particularly

through supplements.

"Based on these and other findings, we can still tell our patients to eat Omega-3 rich foods, but we should not be recommending them in pill form as supplements or even as combined (EPA + DHA) prescription products," he said. "Our data adds further strength to the findings of the recent REDUCE-IT (2018) study that EPA-only prescription products reduce [heart](#) disease events."

Provided by Intermountain Medical Center

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