Prescription omega-3 fatty acid medications effectively lower high triglycerides

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Prescription omega-3 fatty acid medication reduces triglyceride levels by 20-30% among the majority of people who require treatment for high triglyceride levels, according to a science advisory from the American

Heart Association.

"From our review of the evidence from 17 randomized, controlled clinical trials on high triglyceride levels, we concluded that treatment with 4 grams daily of any of the available prescription choices is effective and can be used safely in conjunction with statin medicines that lower cholesterol," said Ann Skulas-Ray, Ph.D., an author of the new science advisory published in the American Heart Association journal *Circulation*.

There are two prescription omega-3 fatty acid medications available. One combines two types of fatty acids, EPA (eicosapentaenoic acid) and DHA (docosahexaenoic acid). The other medication provides EPA only. Since there have been no head-to-head comparisons of the two different formulations at prescription dosing, the advisory does not recommend one over the other.

Triglycerides are fats that circulate in the blood. Some studies have shown that elevated levels of triglycerides (above 200 mg/dL) can lead to atherosclerosis (narrowing of the arteries) which increases the risk of heart attack and stroke. In addition to cardiovascular risk, very high levels of triglycerides (above 500 mg/dL) can also cause pancreatitis, an inflammation of the pancreas.

Skulas-Ray points out that people with high triglyceride levels should not try to treat the condition themselves with non-prescription, omega-3 fatty acid fish oil supplements.

"Dietary supplements containing omega-3 fatty acids are not regulated by the FDA. They should not be used in place of prescription medication for the long-term management of high triglycerides," said Skulas-Ray, who is an assistant professor in the Department of Nutritional Sciences at the University of Arizona in Tucson. In a 2017 science advisory, the

American Heart Association noted that there is a lack of scientific research to support clinical use of omega-3 fatty acid supplements to prevent heart disease in the general population.

The effective dose for prescription omega-3 fatty acids is four grams per day taken with food. Currently, the FDA has approved prescription omega-3 fatty acid medications only for treating very high triglyceride levels above 500 mg/dL.

Healthy lifestyle choices, such as getting regular physical activity, losing weight, avoiding sugar and refined carbohydrates, limiting alcohol as well as choosing healthier fats from plants in place of saturated fats can help reduce triglycerides. It is also important to treat or eliminate conditions such as poorly controlled type 2 diabetes, hypothyroidism and obesity that may contribute to high triglyceride levels before turning to medication.

Fish is a good source of omega-3 fatty acids, and the American Heart Association recommends eating fatty fish—such as salmon, mackerel, herring and albacore tuna—at least two times per week.

In analyzing the current scientific data, the advisory panel found:

- For most people with high triglycerides (200 to 499 mg/dL), prescription doses of omega-3 fatty acids using drugs with either EPA+DHA or EPA alone can reduce triglyceride by 20 to 30%.
- Contrary to common perception, the formula that contains both EPA and DHA does not increase the "bad" form of cholesterol (LDL-C) among most people with high triglyceride levels (200-499 mg/dL). However, when the drug is given to people with very high triglyceride levels at 500 mg/dL or greater, LDL-C may increase.
- The panel's review found that the prescription omega-3 drugs are

effective in reducing triglyceride levels regardless of whether people are on statin therapy.
- In a recent large, randomized placebo-controlled study called REDUCE-IT, researchers found that the EPA-only medication combined with statin medication resulted in a 25% reduction in major cardiovascular events (heart attack, stroke and cardiovascular death) among people with high triglycerides.

Elevated triglycerides are relatively common among people in the United States, and the prevalence is increasing due to growing rates of obesity and diabetes. Both of those conditions raise triglyceride levels. About 25% of adults in the U.S. have a triglyceride level above 150 mg/dL, which is considered borderline high.

More information: Ann C. Skulas-Ray et al, Omega-3 Fatty Acids for the Management of Hypertriglyceridemia: A Science Advisory From the American Heart Association, *Circulation* (2019). DOI: 10.1161/CIR.0000000000000709

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