



## The Medical **Bulletin**

### In Cardiology

American Heart Association's (AHA's) latest guidelines on the management of elevated triglycerides. This is important because even when high LDL cholesterol is lowered with statins, elevated triglycerides increase risk for atherosclerotic cardiovascular disease (ASCVD) events — what is known as residual risk. This was addressed in the 2018 AHA cholesterol guidelines which recommended that elevated triglycerides be used as a "risk-enhancing factor" to tip you toward treatment of high triglycerides if you were otherwise on the fence. Two trials prompted the AHA to revisit the recommendations about treatment of high triglycerides, the JELIS trial and the REDUCE-IT trial. Both used icosapent ethyl, a prescription-grade purified eicosapentaenoic acid (EPA). Icosapent ethyl is EPA alone, without docosahexaenoic acid (DHA), and so it is not the same as over-the-counter fish oil, which is a combination of EPA and DHA.

The JELIS trial looked at more than 18,000 individuals and showed that EPA reduced major coronary events by 19% compared with the control group. The REDUCE-IT trial included more than 8000 patients with ASCVD or diabetes with additional CV risk factors. All participants were on statins with LDLs below 100 mg/dL and triglycerides between 135 and 499 mg/dL (with a mean triglyceride level of 216 mg/dL). The patients were randomly assigned to icosapent ethyl 4 g daily or mineral oil. The composite cardiovascular endpoint was reduced by 25% over approximately 5 years, with a number needed to treat of 21. The risk for atrial fibrillation and bleeding were both elevated in the EPA group. Given this information, the AHA revised their recommendations:

1. Persistent hypertriglyceridemia is defined as a fasting triglyceride level > 150 mg/dL after statin use and lifestyle intervention.
2. Hypertriglyceridemia is responsive to lifestyle modification. Optimizing diet along with regular aerobic exercise can lead to a 20%-50% reduction in triglyceride levels, so this should always be our first approach.

Pharmacologic treatment: For patients who have established ASCVD, and for patients with diabetes (whether or not they have ASCVD), particularly if they are over age 50 and have persistent fasting triglycerides  $\geq 150$  and  $< 500$  mg/dL, provide LDL-lowering therapy first — primarily with a statin — and add other LDL-lowering meds as indicated. Once maximally tolerated LDL-lowering therapy is achieved or a patient's LDL level is at the goal level, if triglycerides are still elevated, the guidelines say "it may be reasonable" to add icosapent ethyl to lifestyle modification.

In adults without ASCVD or diabetes who have elevated triglycerides, there is very little evidence on which to base our decisions with regard to high triglycerides, so the guidelines say, shared decision-making should be used. I personally think this is a group with whom we



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need to really emphasize lifestyle modification because it stands to benefit them in so many ways in addition to their triglycerides (lower cancer risk, better mood and fitness, less depression).

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