



OMEGA-3:

A Heart Healthy Fish Tale

— By Narendra Singh, MD —

Observational studies in the 1970s first identified a relationship between fish consumption and reduced cardiovascular disease in the Eskimo population. Subsequent broader population-based studies confirmed these findings and since then fish oil supplements have been the most commonly used non-vitamin supplement in the United States.

Omega-3s are essential fatty acids that you get from your diet. There are three main types ALA (alpha-linoleic acid) DHA (docosahexaenoic acid) and EPA (eicosapentaenoic acid). Omega-3s are anti-inflammatory and essential for the health of your brain and eyes. From a heart perspective they help to lower triglycerides in the body as much as 15-30% and raise the good cholesterol HDL by about 2-5% they may lower blood pressure, thin the blood to prevent clots and shrink plaques by decreasing inflammation.

Omega-3 supplements are well-tolerated with minimal side effects. They can cause a fishy taste, burping, nausea and diarrhea. They can increase bleeding risk and should be used with caution in individuals already on a blood thinner. They can increase the risk for rhythm disorders such as atrial fibrillation or flutter. Like all products, an allergic reaction is possible and more likely in someone with a seafood allergy.

In 2002 the American Heart Association recommended a diet rich in Omega-3 foods which mainly include oily fish such as salmon herring cod tuna or mackerel or foods such as

flaxseed, chia, walnuts and soybeans. They went on to state that if such a diet was not possible then 1-2 gm of fish oil supplement/day should be consumed. The challenge with supplements is that they are not regulated for dose and are at risk of carrying contaminants.

In the late 1990s the first prescription grade Omega-3 drugs were tested in studies initially done in Italy that found 1 gm/day could significantly reduce cardiovascular death in patients with known heart disease. However, multiple subsequent trials failed to show this association especially in the setting of background statin use or dietary fish consumption.

Last year our practice participated in an 8,000 patient study called REDUCE-IT. This study changed our entire outlook on Omega-3 use. Up until now the prescription products were only approved to lower triglycerides. In this study, patients with diabetes or established heart disease were given 4gm/day of Vascepa (icosapent ethyl) a pure EPA Omega-3 drug. Over a five year follow up period there was a 20% reduction in cardiovascular death, 31% reduction in heart attacks and a 28% reduction

in strokes. Patient outcomes improved regardless of the triglyceride lowering effect suggesting that this may not be the main mechanism of benefit. Pure EPA products may have more of a beneficial effect compared to combined EPA/DHA products as was seen recently with a 13000 patient study called STRENGTH that failed to show a benefit in patients at high risk for cardiovascular disease.

For most of us, dietary supplementation of Omega-3s will be sufficient, but it's nice to know that pure EPA Omega-3's is now available for those that need more heart protection.

NARENDRA SINGH, MD,

FRCP(C), FACC, FAHA

Clinical Assistant Professor, Medical College of Georgia at Augusta University,
Director, Clinical Research-Atlanta Heart Specialists,

1400 Northside Forsyth Dr, Suite 200, Cumming, GA, USA, 30041

Phone (678) 679-6800

4375 Johns Creek Parkway, Suite 350,

Johns Creek, GA, 30024 | (770) 622-1622

DrSingh@ahsmed.com | heartdrsingh.com
