



September 12, 2012

Dear Valued Customer:

**RE: "ASSOCIATION BETWEEN OMEGA-3 FATTY ACID SUPPLEMENTATION AND RISK OF MAJOR CARDIOVASCULAR DISEASE EVENTS. A SYSTEMATIC REVIEW AND META-ANALYSIS." JAMA 2012;308:1024-1032.**

In its September 2012 issue, the Journal of the American Medical Association (JAMA) published a systematic review and meta-analysis of the role of omega-3 supplementation in major cardiovascular outcomes. The review combined 20 previous studies that included approximately 68,000 individuals. It showed that supplementation with omega-3 polyunsaturated fatty acids was not associated with a statistically significant lower risk of all-cause death, cardiac death, sudden death, heart attack, or stroke.

The studies in this analysis were varied across different populations, different background diets, and different conventional treatment regimens. Many of the studies in this analysis were conducted with patients already medicated with pharmaceuticals to combat cardiovascular disease. As a result, it made statistically significant outcomes very difficult to achieve when all factors were combined.

While the study did not reveal a statistically significant relationship between omega-3 supplementation and the relevant measures of heart disease, it did trend towards benefit, showing a **9% reduction in cardiac death** with omega-3 fatty acid supplementation, as well as a **13% reduction in sudden death**, an **11% reduction in heart attacks**, and a **4% reduction in all-cause mortality**.

In this analysis, older studies showed more benefit from omega-3 supplementation than did the newer studies. This is in large part because the average American may now be taking more heart medications, as well as consuming more fish, making it harder for new studies to isolate the effects of omega-3 supplements and make definitive conclusions around their benefits. These simple factors are important for understanding the bigger picture of heart health, but should not eliminate the need for essential fatty acids in daily health maintenance.

Because this study shows that omega-3 supplementation does not cause harm, it is important to understand that even a small benefit would be valuable at the global public health level. When spread across an entire population, research on fish oil supplementation has been shown to reduce overall cardiac risk and even provides modest protection. For some, it may even be life saving.

While this analysis highlights the need for further studies, it is prudent to continue dietary consumption of fish or fish oil supplements to provide modest cardiovascular protection. Eating fish should always be a first line therapy. Unfortunately, high quality fish that is free of environmental toxins is not a viable option for many.

This meta-analysis does not change the fact that omega-3 fatty acids are, in fact, essential nutrients, and international authorities such as the World Health Organization (WHO) and the American Heart Association (AHA) continue to recommend omega-3 fatty acids for maintaining overall health. The AHA recommends 0.5–1.0 grams of combined EPA and DHA per day for individuals with borderline fasting triglyceride levels (150–199 mg/dL), 1.0–2.0 grams per day for individuals with high fasting triglyceride levels (200–499 mg/dL) and 2.0–4.0 grams per day for individuals with very high fasting triglyceride levels ( $\geq 500$  mg/dL).

With over 2,000 studies completed on omega-3s and cardiovascular health, the totality of evidence suggests that there is a positive correlation between increased omega-3 intake and cardiovascular health. In fact, it is well documented that an optimal omega-3 blood test score is associated with a cardioprotective effect. We encourage consumers to visit [www.omega-research.com](http://www.omega-research.com) to review this research.

In an effort to provide consumers with access to accurate information, Nordic Naturals has a corporate commitment and long-established history of educating individuals on the science, safety, and efficacy of omega-3s. This is because we are, and always have been, committed to delivering the world's safest, most effective omega oils.

Attached to this letter are press releases from the trade organizations Global Organization for EPA and DHA (GOED) and the Council for Responsible Nutrition (CRN), which dispute and discount the JAMA omega-3 meta-analysis. If you have additional questions, please feel free to contact your Nordic Naturals sales representative.

Thank you for your continued support of the Nordic Naturals brand.

In health,

A handwritten signature in black ink that reads "Keri Marshall". The signature is fluid and cursive, with a long, sweeping underline.

Keri Marshall MS, ND  
Chief Medical Officer