

OMEGA-3 FATTY ACIDS TO TREAT TEAR FILM DEFICIENCIES

The lacrimal and meibomian glands of the eye secrete aqueous and oils that make up two important components of our natural tear film. Inflammation of these glands is associated with tear-film deficiencies, and produces a multitude of symptoms associated with chronic “dry eyes.” Omega-3 Fatty Acids (FA), which are naturally found in cold-water fish such as salmon, sardines, mackerel, and trout, have been shown to suppress inflammation throughout the body, including the eyes. The 2 types of Omega-3 FA that fight inflammation are docosahexaenoic acid (DHA) and eicosapentaenoic acid (EPA). These fatty acids work naturally to improve the functioning of the lacrimal and meibomian glands, thereby increasing the quality of tear production. While it is possible to increase our intake by including foods rich in omega-3 in our diet, another alternative is to take supplements. After extensive research, we have learned that the body’s absorption of these important nutrients vary greatly with the type supplement used. For this reason, we no longer recommend flaxseed oil. Likewise, the distasteful side effects of some supplements results from a cheaper “ester” form that requires far greater dosages than the more readily absorbed “triglyceride” form, which is better absorbed. We also learned that it is very difficult and time-consuming to find the information we needed. Therefore, we have written this to try to simplify the process of finding the best products (highest absorption by cost and fewest side effects).

What’s the difference between fish oil (marine derived) and flax seed oil (plant derived)?

This is often confusing for physicians and patients, as we once thought these two were interchangeable. However, only fish oil provides pre-formed EPA and DHA, the fatty acids the body actually uses. Plant derived (flax seed oil) contains alpha linolenic acid (ALA), which is only partially converted to EPA and DHA in the body. This conversion of ALA to EPA and DHA is somewhat slow and can be inhibited by lifestyle and health factors, such as a diet high in linoleic acid (Omega-6), saturated fats, and trans-fatty acids such as fast foods and baked goods, alcohol intake, and vitamin and mineral deficiencies. Fish, on the other hand, is a direct source of EPA and DHA. Research shows that under optimal conditions, less than 15% of ALA converts to EPA, and less than 5% converts to DHA.

What is the recommended intake of Omega-3 fatty acids?

Children (1.5–15 yrs): 15 mg/lb EPA+DHA; Lactating Women: 300 mg DHA daily

Adults (15–115 yrs)

500 mg [220 mg EPA (minimum)+220 mg DHA (minimum)]as a basic maintenance dose for healthy individuals.

1000 mg for those with known risks for heart disease (according to the American Heart Association) or for those with mood disorders (according to the American Psychiatric Association).

3000 mg of EPA and DHA is recommended to support individuals with inflammatory conditions such as arthritis. (For those taking blood thinners or have an increased risk of bleeding should consult their physician before taking daily doses of 3000 mg.)

What is the difference between Omega 3 and Omega 6 fatty acids?

Please go online to: http://www.nordicnaturals.com/en/General_Public/What_are_EFAs_/164/

Can we get enough EFAs from the food we eat?

Fish is one of the most abundant sources of EFAs, but Americans simply don't eat enough fish on a regular basis. Even those who eat fish several times a week aren't getting enough EFAs because much of the fish consumed today are farm raised (fed a diet of grains instead of fish meal) and lack significant amounts of EPA and DHA.

What is pharmaceutical grade?

Pharmaceutical grade/standard relates to the purity of an oil. Nordic Naturals fish oils are tested, before and after production, showing the absence of environmental toxins such as heavy metals, PCBs, and dioxins. Only a true pharmaceutical grade/standard product will pass these standards.

What if a person is allergic to fish? Can they ingest fish oil?

Generally, yes. Allergens (what people react to) in food are usually the protein component of a food (e.g. gluten in wheat, casein in milk). Because Nordic Naturals pure fish oils are carefully manufactured (gentle processing, low temperature, clay filtered, and microdistilled) they are essentially void of protein components. As a result, people who react to eating fish can generally consume fresh fish oil capsules. It is always a good idea to consult with your allergist before beginning a supplement regime.

Triglyceride versus Ethyl Ester Form – why is the triglyceride form recommended?

Triglycerides contain a glycerol backbone, stabilizing the oil molecules in their natural form. But fish oils that are in the synthetic ethyl ester form are highly unstable, and rapidly break down during storage. Additionally, if the glycerol backbone is missing (as they are with synthetic ethyl esters), and no other glycerol backbones are available, the oil cannot be converted back to triglyceride form. Fatty acids not converted to triglycerides pose an oxidation burden in the form of free radical formation.

Why did we choose to recommend Nordic Naturals brand?

Nordic Naturals provides the highest quality fish oil products available, with purity and freshness. They produce only the triglyceride form, optimizing absorption and minimizing oxidative stress. Their pleasant taste leads to improved customer compliance and therefore therapeutic results. They are chosen by leading researchers around the globe in studies of Essential Fatty Acids, and they offer a wealth of research articles and consumer information. Their patented manufacturing process optimizes product quality and environmental responsibility.

There are so many products to choose from! Which do you recommend? For dry eyes:

I spent several weeks pouring through the literature, comparing various products for content and value (amount of bioavailable Omega 3 Fatty Acids vs. cost per day) and have found this to be the best product: ProOmega 120 count for \$49.95. If you order 3 bottles at a time, it costs \$142.95. (We found this product at a local health food store at a cost of \$33.49 for only 60 capsules.) I recommend you take 2 soft-gel capsules/day. You can order on-line at www.nomoredryeyes.com. (They will need our phone number without the dashes: 9082810800). Since many of you have requested we order for you here (in order to save shipping costs), we usually keep a supply: \$47/bottle of 120; \$135 for 3 bottles. Please call ahead when you need more, as we order according to requests: 908-281-0800.

For the treatment or prevention of macular degeneration, order DHA Eye instead. The fish oil in DHA Eye provides an ideal lipid delivery system for the added lutein (20 mg) and zeaxanthin (4 mg), and is a convenient way to achieve the combined benefits of these nutrients. <http://www.nomoredryeyes.com/index.php?pg=product&productid=18>
Remember to enter our phone number without the dashes: 9082810800.

