

## Biomega-1000 Fish Oil

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Did you know that the process of catching a fish and processing the oil to the point where it can be put in a capsule takes well over a YEAR? No wonder the *Journal of Nutritional Science* reported in November 2015 that 50% of omega-3 fatty acid supplements purchased by researchers in Canada failed tests for freshness and exceeded limits for oxidation.

Let's spend a little time talking about the fish oil industry because once patients understand the dynamics behind fish oil, they will want to get their products from a trusted source – you.

Here's an overview of the process. Fish are caught, and the oil is collected and sent to huge distribution centers in Asia or the Netherlands. Next, the oil is loaded into tankers and transported to the North Atlantic where it is pumped into another tank. The tank is then transported to Norway where it is processed into a concentrate and put into barrels. Next, it is shipped to US markets. Barrels are then sent to a manufacturer such as



Biotics, which in turn sends it to a facility to put the oil into capsules. Then large quantities of capsules are shipped back to the manufacturer where they are put into individual bottles. Finally, they are available to be sold to the public.

As you know, fish oil is highly sensitive to air, temperature, and light. We know over time there is a quantifiable and measurable degradation of nutrients and oxidation/rancidity levels, but there is also a non-quantifiable degradation of the "aliveness" of the raw materials. For example, at the time of picking, an apple is bursting with nutri-

ents, but it is also bursting with life-factors we know nothing about. Both degrade over time.

In keeping with Biotics' philosophy of purity and bioavailability, Biotics has located a strategically placed, state-ofthe-art facility to process fish oil from anchovies in the South Pacific Ocean. The facility is literally on the beach where the fishing boats dock. Because the facility is so state-of-the-art they have full traceability of their oils. This means they can trace the oil to the actual boat and date it was harvested. Biotics Research Corporation's strategically placed facility dramatically minimizes shipping /transportation time. The fish are caught and oils processed a short distance from harvest, eliminating vulnerability to rancidity.

Biotics is releasing this oil into the marketplace in a product called Biomega-1000. Each capsule yields 1000 mg of omega-3 oils, 572 mg of EPA, and 429 mg of DHA. Each bottle contains 90 capsules for convenience and is the most reasonably priced fish oil on the market.

Current research shows significant anti-inflammatory benefits become apparent at 3 grams a day. So, with each capsule being 1000 mg, three capsules a day support the research.

We know smaller fish don't have long-term exposure to mercury and other environmental contaminants. An organization called GOED which stands for Global Organization for EPA and DHA set quality standards for the industry. Needless to say, this oil passes their standards with flying colors.

Another industry marker called TOTOX, total oxidation value, is used to describe total oxidation to which "oil has been exposed." This reflects the levels of contaminants, environmental pollutants, and heavy metals. Regular viewers remember that Biotics has their own standards for evaluating oils. Biotics' quality control lab measures the TOTOX levels when oils are purchased to assure purity. But unlike other manufacturers, they also measure them after encapsulation to assure oils are not contaminated by manufacturing or in transit. These smaller fish processed in the South Pacific for Biotics have the lowest TOTOX levels in the industry. The combination of low TOTOX levels and reduced processing time means the stability and shelf life of Biomega-1000 extends to three years.

Older fish or fish oil trapped in the current supply chain are exposed to harsh chemicals to purify oils for contaminants as well as taste and smell. Since anchovies are smaller fish and contain fewer toxins, a unique and gentle patented process is used to purify the oil into a colorless oil with record-setting low TOTOX levels.

As if the purity, stability and traceability weren't enough, Biomega-1000™ uses the triglyceride form of fish oil versus the ethyl ester (EE) and monoglyceride form (MG). Ethyl ester forms are generally found in discount stores. According to a review of evidence reported in the journal, progress in lipid research bioavailability seems to be lowest for the ethyl ester form.

Conversely, studies show the triglyceride form of fish oil was hydrolyzed by pancreatic lipase 12 to 15 times faster than the ethyl ester form. Other studies confirm that the triglyceride form of fish oil is more efficiently digested and 70% more absorbable than the ethyl ester form.

It's a huge upgrade. Remember, fish oils are processed continents away from where the fish are harvested. When exposed to air and light, fish oil degrades and becomes rancid. Longer transit time means higher risk of oxidation. The new Biomega-1000 contains oils that are encapsulated in 1/3 the amount of time it takes for other commercial oils. And what it means to our patients is that we can now guarantee the freshest raw material available. Not only is it fresh, the oil is fully traceable from catch to capsule, has unparalleled purity, has a longer shelf life and is cost efficient. That is exactly what our patients are looking for: the best product at the best price.

Thanks for reading this week's Tuesday Minute edition. I'll see you next Tuesday.