

# VECTOMEGA COMPARISON CHART

	VECTOMEGA®	Fish Oil	Squid Oil	Krill Oil	Flax/Vegetable Omega-3 Source
<i>Absorption of EPA and DHA</i>	Extremely bioavailable. DHA/EPA are bound to phospholipids for incredible absorption levels. Up to 50 times more absorbable than the triglyceride-bound omega-3s found in most fish oils. <sup>†</sup>	Limited. Transported into the cells via triglycerides.	Limited. Same as fish oil, with triglyceride transport.	Phospholipid transport yields higher absorption.	Omega-3s absorb, but the body must convert the omega-3s into EPA and/or DHA. This conversion process is, on average, less than or equal to 1%.
<i>Sustainability</i>	Extremely sustainable. Food grade salmon, wild farmed in fjords along the North Atlantic coastline (i.e., Norway and Scotland). They have access to deep water, natural food and light, but are protected from predators. It also means they are not from rapidly depleting wild stocks that may be contaminated with heavy metals, nor are they kept in an artificial, shallow "fish farm" miles inland in unsanitary conditions.	Unsustainably harvested. Generally from many fish sources – you can't be sure if the fish used for the oil is from rapidly depleting wild-stocks or if it is merely "junk fish" processed from waste by-products. Otherwise, the fish may be farmed in shallow ponds far from their natural environment, and susceptible to health issues due to close proximity.	Currently plentiful, but potentially unsustainable. Cephalopods like squid are a major food source for other larger fish and whales.	Not sustainable. Krill is the main source of food for whales. Using it in supplements raises very real concerns about long-term environmental effects.  Krill fishing has been banned off the coast of California, Oregon and Washington. Some prominent retailers have stopped sales of krill oil due to sustainability concerns.	Generally sustainable. Acceptable when the flax or other vegetable sources are farmed according to sustainable or organic practices.
<i>Processing</i>	Cold water and enzymes are all that's needed to extract omega fatty acids, phospholipids, and peptides, which are processed within an hour of the catch. An exclusive, patented process creates a phospholipid-bound omega-3 product with up to 50 times the absorption of triglyceride-bound omega-3s. <sup>†</sup>	Fish oils are heat processed, and solvents are used. Molecular distillation heats to 400° F or more. This alters the original positions of the omega-3 fatty acids, changing their structure.	Squid oil is sometimes processed from the entrails about 2 to 6 hours after the catch.  Otherwise, it is frozen until the oil can be processed later.  The oil is then further refined to reduce odor, and then enriched.	Because the omega-3s are so intensely bound to krill shells, solvents like hexane are sometimes used during processing. Hexane is a petrochemical that is hazardous to health – especially neurological health. Krill, a member of the same family as shrimp, is also high in cholesterol.	Cold-pressed flax oil is the norm so it keeps its natural nutritional profile.
<i>Natural Levels of Omega-3s</i>	Naturally-occurring levels of DHA and EPA in Vectomega are exclusively from salmon, a very rich source of omega-3 fatty acids, and are naturally bound to phospholipids, which makes them much more absorbable.	Heat and chemical processing destroys the molecular arrangement of DHA and EPA, so they are no longer bioidentical.  Additionally, many fish oil supplements have artificially "spiked" levels of omega-3s, which greatly increases rancidity issues.  In the end, fish oil is not a very "natural" source of omega-3s.	Low levels of naturally-occurring DHA and EPA. Squid contain 80% less omega-3s than salmon.  Refining can concentrate the DHA and EPA levels, but the heat, pressing, and drying destroys molecular arrangement of DHA & EPA, so it is no longer bioidentical.	Krill oil contains omega-3 fatty acids, but also high levels of cholesterol that must be removed with solvents.	Flax oil is actually very rich in alpha-linolenic acid, which the body converts to eicosapentaenoic acid (EPA). The conversion process varies greatly among individuals, with most having some level of non-conversion. This is why it takes so much more flax oil (or other vegetable form) to equal the amount of omega-3s available from animal sources like fresh salmon.
<i>Nutrient Value</i>	Triglyceride and cholesterol free.  Omega-3 fatty acids clinically studied for healthy heart, brain, skin, immune and nervous system support.*  Contains naturally occurring bioactive fish peptides, which also support health.*	Fish oils have never been a traditional part of a diet. The best results for health were typically seen in studies of whole fish consumption.  Fish oil is high in triglycerides, and prone to rancidity, which causes oxidative stress and creates free radicals in the body.	High in triglycerides, same issues with rancidity concerns.	Never a typical staple food in the human diet.	Flax seed and flax oil are rich in nutrients, and make good additions to meals, such as in salads or smoothies.

\*THIS STATEMENT HAS NOT BEEN EVALUATED BY THE FOOD AND DRUG ADMINISTRATION. THIS PRODUCT IS NOT INTENDED TO DIAGNOSE, TREAT, CURE OR PREVENT ANY DISEASE.

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	VECTOMEGA®	Fish Oil	Squid Oil	Krill Oil	Flax/Vegetable Omega-3 Source
<i>Dosage</i>	One to two tablets daily.	Fish oil typically requires large dosages just to get benefits. Some recommend up to 12 softgels daily or at least 3 teaspoons!	1-2 softgels or 2 teaspoons daily.	Varies, but frequently 2 softgels per dose.	Up to 14 softgels or at least one or two tablespoons of the liquid form.
<i>Safety</i>	<p>There are no significant safety concerns with Vectomega. It is regularly tested for purity and safety, including heavy metals, PCBs and other toxins.</p> <p>In fact, you would have to take 150,000 Vectomega tablets at one time to exceed the safety levels for PCBs established by the State of California.</p> <p>Meets or exceeds both European and U.S. standards for purity – no concerns with toxins, heavy metals, or contaminants.</p> <p>Solvent-free.</p>	<p>Major concerns about safety, heavy metals, and contaminants.</p> <p>In California, 90 nanograms of total exposure from all sources per day is the maximum limit for PCBs. Some of the tested fish oil products had many times more than this amount in a single dose! In fact, one product had 850 nanograms per dose – 9 times (900%) the daily limit!</p> <p>According to the Council for Responsible Nutrition (CRN), all fish and all fish oil products have varying levels of PCBs – from trace to excessive. Since PCBs are concentrated in oil, it is a clear safety advantage to have a fish-sourced omega-3 product that is NOT from the fat of the fish.</p> <p>Some concerns with solvent residue.</p>	<p>Squids (and other cephalopods) can accumulate metals through the diet, much like fish.</p> <p>This is due to their diet of mollusks and other shellfish, which can also transfer illnesses from algal blooms to the squid.</p> <p>Some concerns with solvent residue.</p>	<p>This highly refined oil has the same metal exposure as other fish oils.</p> <p>Numerous studies have found krill to be contaminated by pollution.</p> <p>Krill oil supporters claim that krill naturally contains the antioxidant astaxanthin, which supposedly keeps it from being contaminated. However, astaxanthin hasn't shown that high of an antioxidant ability to justify the claims.</p> <p>Some concerns with solvent residue.</p>	<p>Generally safe, depending on the farming and processing methods used. Like any vegetable crop, local conditions can mean higher lead (or other heavy metals) levels in the plant.</p>
<i>Rancidity? This spoilage causes oxidative damage in the body, a concern for many omega-3 products.</i>	Stable	Yes	Yes	Yes	Yes
<i>Bioidentical to EPA &amp; DHA in Human Body?</i>	Yes	No	No	No	No



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or



One Vectomega® Tablet

The Amount of Omega-3s  
in 6 oz. of Salmon

Up to 9 Standard 500 mg Fish Oil Capsules††  
(> 4,000 mg or 4 grams)

## Vectomega – The Superior Omega-3 Product

† Comparative in-vitro study of the intestinal permeability and bioaccumulation of omega-3 fatty acids in Vectomega using the CACO-2 epithelial intestinal model. Rennes, France. †† Depending on EPA/DHA standardization