



SUPERIOR OMEGA-3 RICH FISH OIL 60% EPA/DHA Free Fatty Acid Form

Q: What is natural Fish Oil?

A: The most natural Fish Oil is found in the triglyceride form, which means that a molecule of glycerin is conjugated in its three sites with three fatty acids. Normally only up to 30% of the Fatty Acids are EPA & DHA.

Q: How is concentrated or winterized Fish Oil formed?

A: By cooling the triglyceride oil over a period of time, the tree glycerides, which contain mainly saturated fats, precipitate and the liquid phase of oil is enriched up to 40-45% EPA & DHA.

Q: What are Esterfied Fish Oils:

A: Using a process known as trans-esterfication, the glycerin molecule can be replaced with either methanol or ethanol to form the methyl or ethyl ester of the fatty acid. Although Methyl ester is no longer used because of it's known toxicity, products using the ethanol are often found in the market with potency generally ranging from 50-60% EPA & DHA.

Q: How are these higher percentages obtained?

A: By using a process, which may include Urea inclusion bodies, the saturated and mono unsaturated fats can be captured by the Urea compound and removed from the Fish Oil; thereby leaving a higher percentage of EPA & DHA.

Q: What is r-Triglyceride Fish Oil (commonly referred to as 're-esterfied fish oil')?

A: In order to obtain higher EPA & DHA content, Fish Oil is hydrolyzed to the Free Fatty Acid form and then once again bound to a glycerin molecule; thereby providing an 'enriched triglyceride' material. While this process on the surface appears valid in theory, in actual practice, the process of re-esterfication involves boiling of the mixture of the material using a concentrate of Sulfuric Acid as a catalyst. This process is known as reflux. The use of high temperatures during this process results in high peroxide levels and increases the amount of trans fatty acids; as a result, the r-Triglyceride form cannot be used for human consumption.

Q: Are there other ways to obtain r-Triglyceride Fish Oil Form?

A: Yes, there is another process known as “cold re-esterfication”. However, the reaction of esterfication takes place in Methylen Chloride or Ethylene Chloride, both of which are know to be carcinogenic. In addition, both condensing chemicals are very expensive and once used, are not able to be re-used in further processing; thereby making this process economically infeasible.

Q: How does the EPA-PURE Free Fatty Acid form differ from the Triglyceride and Ethyl ester forms described above?

A: Using a proprietary patented process (US Patent #4,792,418), the naturally occurring Triglyceride Fish Oil is converted into the **Free Form** state, which is the most readily absorbable form commercially available. By converting the oil into the Free Form, molecules of other compounds are removed thereby allowing concentrations of EPA & DHA up to 100%.

Q: Why is it necessary for the Fish Oil to be in the Free Form for proper and efficient absorption?

A: Due to the complexity of both the triglyceride and Ethyl ester molecules, the body is unable to directly absorb either of these forms of oil in their current form. For this reason, both the triglyceride and Ethyl ester molecules must first be ‘separated or cleaved’ from the Omega 3 molecule; thereby forming a **Free Fatty Acid** molecule. The body does this through the digestive process which requires sufficient amounts of the pancreatic enzyme lipase to complete the process.

Unfortunately, if there are inadequate amounts of lipase available, or if the digestive process is not operation fully, full absorption of EPA & DHA cannot be obtained. Its’ worth noting that many people suffer from improper lipase production; especially the elderly, those under stress, or those experiencing other health related issues. The end result is that individuals may not obtain the maximum potential absorption of these important Omega 3’s Fatty Acids.

Q: Do certain types of Omega 3 Rich Fish Oil produce more so-called ‘ burp-back’ than others?

A: When ‘burp-back’ occurs, it is evidence that the digestive system may not be functioning properly. As described above, when an Omega 3 Fish Oil is ingested, the body relies on the panceative enzyme Lipase to assist in braking down the various molecules. ‘Burp-back’ is evidence that there is a deficiency in the amount of Lipase being produced to meet the demands of the digestive process. An example of this can be seen in older individuals or individuals suffering from Chrones disease, as both of these populations experience improper greatly reduced Lipase production, resulting in their ability to properly breakdown any component in the Triglyceride form. As EPA-PURE is already in the Free Form, it is especially beneficial for these types of individuals as the presence of Lipase is not required to absorb EPA & DHA in the Free Form.

MARINE LIPID CONCENTRATE

60% EPA/DHA

<u>METAL</u>	<u>RESULTS</u>
Arsenic	<0.5 ppb
Cadmium	<40 ppb
Mercury	<1 ppb
Lead	<100 ppb
PCB's	>10 ppb

All results meet or exceed levels per California Proposition 65.