### **Omega-3 Fatty Acids: Fact Sheet**

There are many health benefits of omega-3 fatty acids. Research shows strong evidence that the omega-3s EPA and DHA can boost heart health and lower triglycerides. And there are studies showing that omega-3 fatty acids may help with other conditions -- rheumatoid arthritis, depression, and many more.

Just what are omega-3 fatty acids exactly? How much do you need? And what do all those abbreviations -- EPA, DHA, and ALA -- really mean? Here's a rundown of the essential omega-3 facts you need to know.

### **Omega-3 Fatty Acids: Basics**

- Omega-3 fatty acids are considered essential fatty acids. We need them for our bodies to work normally. Because essential fatty acids (ALA,DHA,EPA) are not made in the body or are inefficiently converted from ALA to EPA and DHA, we need to get them from our diet.
- Omega-3s have a number of health benefits. Omega-3s are thought to play an important role in reducing inflammation throughout the body -- in the blood vessels, the joints, and elsewhere. However, omega-3 supplements (EPA/DHA) may cause the blood to thin and cause excess bleeding, particularly in people taking anticoagulant drugs.
- There are several types of omega-3 fatty acids. Two crucial ones -- EPA and DHA -- are primarily found in certain fish. Plants like flax contain ALA, an omega-3 fatty acid that is partially converted into DHA and EPA in the body. Algae oil often provides only DHA.
- Experts say that DHA and EPA -- from fish and fish oil -- have better established health benefits than ALA. DHA and EPA are found together only in fatty fish and algae. DHA can also be found on its own in algae, while flaxseed and plant sources of omega-3s provide ALA -- a precursor to EPA and DHA, and a source of energy.

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- **Blood fat [triglycerides].** According to a number of studies, fish oil supplements can also cut elevated triglyceride levels. Having high levels of this blood fat is a risk factor for heart disease. DHA alone has also been shown to lower triglycerides.
- **Cardiovascular health.** Omega-3 fatty acids appear to lower the overall risk of death from heart disease. Fish oil may reduce arrhythmias, and people who take fish oil supplements after a heart attack cut their risk of having another heart attack. Eating fish once or twice a week seems to significantly lower the risk of stroke.
- Rheumatoid arthritis. A number of studies have found that fish oil supplements [EPA+DHA] significantly reduced stiffness and joint pain. Omega-3 supplements also seem to boost the effectiveness of anti-inflammatory drugs.
- **Depression.** Researchers have found that cultures that eat foods with high levels of omega-3s have lower levels of depression. Fish oil also seems to boost the effects of antidepressants. Fish oil may help reduce the depressive symptoms of bipolar disorder.
- **Prenatal health.** Studies show that EPA and DHA supplementation during pregnancy boost the health of pregnant women and the development of their children. DHA appears to be important for visual and neurological development in infants.
- Asthma. Evidence suggests that a diet high in omega 3s reduces inflammation, a key component in asthma. However, more studies are needed to show if fish oil supplements improve lung function or reduce the amount of medication a person needs to control their disease.
- **ADHD.** Some studies show that fish oil can reduce the symptoms of ADHD in some children and improve their cognitive function. However, more research is needed in this area, and omega-3 supplements as a primary treatment for this disorder are not supported by research.

• Alzheimer's disease and dementia. The evidence is preliminary, but some research suggests that omega-3s may help protect against Alzheimer's disease and dementia. Recent studies have also evaluated whether the omega-3 supplement DHA can slow the decline seen in those with Alzheimer's dementia or in age-associated memory impairment. One recent study showed that DHA can be a beneficial supplement and may have a positive effect on gradual memory loss associated with aging. However, more research needs to be done.

### Omega-3 Fatty Acids: Omega-3s and Omega-6s

- You may have heard about the importance of having a healthy balance of omega-3s with another fatty acid, omega-6s. Omega-6s are found in many oils, meats, and processed foods.
- Many experts believe that most people in the U.S. are eating far too many omega-6s and far too few omega-3 fatty acids. They argue that this imbalance may be causing many chronic diseases.
- However, other experts disagree. They don't believe the ratio of omega-6s to omega-3s is actually significant. They also argue that the health benefits of omega-6s are being ignored.
- For now, the full implications aren't clear. But the bottom line is simple. Whether the ratio turns out to matter or not, increasing your intake of omega-3 fatty acids is still a good thing.

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### **Omega-3 Fatty Acids: Food Sources**

- When possible, try to get omega-3 fatty acids from foods rather than supplements.
- Fish high in DHA and EPA omega-3 fatty acids include anchovies, bluefish, herring, mackerel, salmon (wild has more omega-3s than farmed), sardines, sturgeon, lake trout, and tuna. Many experts recommend eating these fish two to three times a week.
- Good food sources of ALA -- which is converted into omega-3 fatty acids in the body -- include walnuts, flax and flaxseed oil, canola oil, olive oil, and soybean oil.
- While foods containing omega-3 fatty acids have health benefits, some -- like oils and nuts -- can be high in calories. So eat them in moderation.

### **Omega-3 Fatty Acids: Supplements**

- If you decide to use a supplement, discuss this treatment with your doctor first to make sure you are getting the benefits you need.
- Experts usually recommend 1 or 2 grams (1,000 to 2,000 milligrams) of DHA and EPA combined from fish oil daily for those with heart disease. People with certain health conditions may take doses of up to 4 grams a day -- but only under a doctor's supervision.
- The most common side effect from fish oil is indigestion and gas. Getting a supplement with an enteric coating might help.
- In high doses -- 3 grams and above -- omega-3 supplements (EPA/DHA) can increase the risk of bleeding. People with bleeding conditions -- or who take medicines that could increase bleeding, like Coumadin, Plavix, Effient, Brilinta, and some painkillers -- should talk to a doctor before using any omega-3 supplements. Bleeding-related complications are separate effects for EPA and DHA. DHA has not been associated with bleeding problems.

### **Omega-3 Fatty Acids: Tips**

- **Choose the right fish.** While eating more fatty fish is a good idea, some are more likely to have higher levels of mercury, PCBs, or other toxins. These include wild swordfish, tilefish, and shark. Farm-raised fish of any type may also have higher levels of contaminants. Children and pregnant women should avoid these fish entirely. Everyone else should eat no more than 7 ounces of these fish a week. Smaller fish like wild trout and wild salmon are safer. We use Nordic Sea cold water fish which is best.
- **Consider eating more free-range poultry and beef.** Free-range animals have much higher levels of omega-3s than typical, grain-fed animals.
- **Consider a supplement like fish oil capsules or algae oil.** Fish oil contains both EPA and DHA. Algae oil contains DHA and may be a good option for those not tolerant to fish or for vegetarians.
- Talk to your doctor before using a supplement. Before you start using any supplement, you should always talk it over with your doctor. He or she may have specific recommendations -- or warnings -- depending on your health and the other medicines you take.



# **Other Ingredients in our Omega-3 Fish Oil**

What is magnesium stearate? Magnesium stearate is a white substance, solid at room temperature, used in the manufacture of pharmaceutical and supplement tablets and capsules. The primary role of magnesium stearate in supplements is to act as a lubricant to prevent tablet and capsule contents from sticking to the machinery that process them. The magnesium stearate we use is vegetable based and batch tested for purity by government standards.

What is Stearic Acid? Purified Stearic acid is the common name for octadecanoic acid, which is a saturated fatty acid. It is a waxy substance that is odorless and often takes the form of white or yellow waxy flakes. When it is heated, it becomes a clear liquid. Stearic acid is one of the most commonly occurring fatty acids and is found in a number of animal fats and vegetable oils, including beef fat and cocoa butter. It is often used in the production of margarine, shortening, spreads, and baking products..

What is Gelatin? Gelatin is a colorless or slightly yellow, nearly tasteless and odorless substance obtained by boiling the skin, tendons, and ligaments of animals. As a result, it contains protein, collagen (a primary component of joints, cartilage, and nails), and various amino acids. It has long been a key ingredient for providing support for "jelled" desserts, salads, frozen drinks. Gelatin (also gelatine) has many uses in food, medicine, and manufacturing. Substances that contain or resemble gelatin are called gelatinous. Gelatin is a common substance used in capsules for vitamins and herbs and is harmless, basically providing some protein and amino acids. These are gelatin capsules that dissolve within minutes in the stomach.

What is Enteric Coated? Enteric Coating Process allows the capsules to pass undissolved through the stomach into the intestinal tract where they breakdown. This eliminates the fishy aftertaste that is sometimes an issue with uncoated capsules.

What is Methylcellulose? Methylcellulose is a fiber that is nonallergenic, non-fermentable, can be taken every day, and is created from the cell wall of plants. It is not absorbed by the intestinal tract but instead absorbs water to create a softer stool. It is used in the manufacture of capsules in nutritional supplements, its edible and nontoxic properties provide a vegetarian alternative to the use of gelatin.

What is Sodium Alginate? Sodium alginate is derived from sea kelp or seaweed, with much of its production originating in Asia. It is an abundant substance that has many applications in the food industry. In addition, alginate functions as a dietary fiber. Sodium alginate is useful in extending the shelf life of manufactured food products. It binds and retains water in food, keeping products soft and moist for longer periods of time compared with foods that do not include alginate.

What is Vegetable Glycerin? An amazing product whose unique combination of properties have made it useful in a wide variety of applications. It is a clear, colorless, thick liquid with a naturally sweet taste. It is derived from palm oil by the process of hydrogenolysis, which removes the fatty acids, leaving pure vegetable glycerine. Metabolized in the body like a carbohydrate, it is easily digested, and its warm sweet taste makes it an excellent substitute for sugar.

What is Vanillin? Vanillin is an organic compound contained in vanilla beans. It is one of the most flavorful and aromatic substances used in the food industry. Vanillin appears in everything from soda pop to baked goods. Even though ancient civilizations like the Aztecs had been using vanilla beans in their cooking for centuries, the isolated compound vanillin was first put into use in the mid-19th century. The first commercially processed vanillin came from a German manufacturer in 1876. In addition to being a common food flavoring, vanillin is frequently used to change certain flavors in the nutritional supplement industry as well.

What is food glaze? Many people may not be aware that the glaze that covers some of their favorite products – including vitamins, candy and even some fruit – may actually be made from shellac; a resin made from the secretions of the female lac insect. When used in food and confections, shellac is described on food labels as 'confectioner's glaze', 'confectioner's resin', 'resinous glaze', 'candy glaze', 'pure food glaze' and 'natural glaze' and coating on some nutritional supplements.

Please contact us at <u>www.bozoomer.com</u> for our complete family of supplements. Thank You!