

OMEGA 3 FATTY ACIDS

Are fatty acids that the body can not make and are therefore considered essential fatty acids: They are necessary for human health playing a crucial role in brain function, as well as normal growth and development. They have also become popular because they may reduce the risk of heart disease. The American Heart Association recommends eating fish (particularly fatty fish such as mackerel, lake trout, herring, sardines, albacore tuna, and salmon) at least 2 times a week. The concern with eating fish is that large fish have high levels of mercury and other heavy metals.

Research has shown that omega-3 fatty acids reduce inflammation and may help lower risk of chronic diseases such as heart disease, cancer, and arthritis. Omega-3 fatty acids are highly concentrated in the brain and appear to be important for cognitive (brain memory and performance) and behavioral function. It appears that infants who do not get enough omega-3 fatty acids from their mothers during pregnancy are at risk for developing vision and nerve problems.

Symptoms of omega-3 fatty acid deficiency include:

- fatigue,
- poor memory,
- dry skin,
- heart problems,
- mood swings or depression, and
- poor circulation.

The ratio of omega-3 and omega-6 (another essential fatty acid) in the diet, is important to health. Omega-3 fatty acids help reduce inflammation, and most omega-6 fatty acids tend to promote inflammation. Unfortunately most typical western diets contain 14 - 25 times more omega-6 fatty acids than omega-3 fatty acids

Uses

Clinical evidence is strongest for heart disease and problems that contribute to heart disease, but omega-3 fatty acids may also be used for:

- High Cholesterol
- High Blood Pressure
- Heart Disease
- Rheumatoid Arthritis
- Diabetes
- Systemic Lupus erythematosus
- Osteoporosis
- Depression
- Bipolar
- Schizophrenia
- Attention Deficit Disorder
- Cognitive decline
- Inflammatory Bowel Disease
- Macular Degeneration

- Skin Disorders
- Menstrual Pain
- Colon Cancer
- Breast Cancer
- Prostate Cancer
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The following information is taken directly from the University of Maryland Medical Centre Website

<http://umm.edu/health/medical/altmed/supplement/omega3-fatty-acids>

Please note my comments have been added (not italics), and some notoriously GMO foods deleted from the sources list.

High cholesterol

People who follow a Mediterranean style diet tend to have higher HDL or “good” cholesterol levels, which help promote heart health. Inuit Eskimos, who get high amounts of omega-3 fatty acids from eating fatty fish, also tend to have increased HDL cholesterol and decreased triglycerides (fats in the blood). Several studies have shown that fish oil supplements reduce triglyceride levels. Finally, walnuts (which are rich in alpha linolenic acid or ANA, which converts to omega-3s in the body) have been reported to lower total cholesterol and triglycerides in people with high cholesterol levels.

High blood pressure

Several clinical studies suggest that diets rich in omega-3 fatty acids lower blood pressure in people with hypertension. An analysis of 17 clinical studies using fish oil supplements found that taking 3 or more grams of fish oil daily may reduce blood pressure in people with untreated hypertension. Doses this high, however, should only be taken under the direction of a physician.

Heart disease

The role of omega-3 fatty acids in cardiovascular disease is well established. One of the best ways to help prevent heart disease is to eat a diet low in saturated fat and to eat foods that are rich in monounsaturated and polyunsaturated fats (including omega-3 fatty acids). Clinical evidence suggests that EPA and DHA (eicosapentaenoic acid and docosahexaenoic acid, the 2 omega-3 fatty acids found in fish oil) help reduce risk factors for heart disease, including high cholesterol and high blood pressure. Fish oil has been shown to lower levels of triglycerides (fats in the blood), and to lower the risk of death, heart attack, stroke, and abnormal heart rhythms in people who have already had a heart attack. Fish oil also appears to help prevent and treat atherosclerosis (hardening of the arteries) by slowing the development of plaque and blood clots, which can clog arteries.

Large population studies suggest that getting omega-3 fatty acids in the diet, primarily from fish, helps protect against stroke caused by plaque buildup and blood clots in the arteries that lead to the brain. Eating at least 2 servings of fish per week can reduce the risk of stroke by as much as 50%. However, high doses of fish oil and omega-3 fatty acids may increase the risk of bleeding. People who eat more than 3 grams of omega-3 fatty acids per day (equivalent to 3 servings of fish per day) may have higher risk for hemorrhagic stroke, a potentially fatal type of stroke in which an artery in the brain leaks or ruptures.

Diabetes

People with diabetes often have high triglyceride and low HDL levels. Omega-3 fatty acids from fish oil can help lower triglycerides and apoproteins (markers of diabetes), and raise HDL, so eating foods or taking fish oil supplements may help people with diabetes. Another type of omega-3 fatty acid, ALA

(from flaxseed, for example) may not have the same benefit as fish oil. Some people with diabetes can't efficiently convert ANA to a form of omega-3 fatty acids that the body can use. Also, some people with type 2 diabetes may have slight increases in fasting blood sugar when taking fish oil, so talk to your doctor to see if fish oil is right for you.

Rheumatoid arthritis

Most clinical studies examining omega-3 fatty acid supplements for arthritis have focused on rheumatoid arthritis (RA), an autoimmune disease that causes inflammation in the joints. A number of small studies have found that fish oil helps reduce symptoms of RA, including joint pain and morning stiffness. One study suggests that people with RA who take fish oil may be able to lower their dose of non-steroidal anti-inflammatory drugs (NSAIDs). However, unlike prescription medications, fish oil does not appear to slow progression of RA, only to treat the symptoms. Joint damage still occurs.

*Laboratory studies suggest that diets rich in omega-3 fatty acids (and low in the inflammatory omega-6 fatty acids) may help people with osteoarthritis, although more study is needed. New Zealand green lipped mussel (*Perna canaliculus*), another potential source of omega-3 fatty acids, has been reported to reduce joint stiffness and pain, increase grip strength, and improve walking pace in a small group of people with osteoarthritis. For some people, symptoms got worse before they improved.*

An analysis of 17 randomized, controlled clinical trials looked at the pain relieving effects of omega-3 fatty acid supplements in people with RA or joint pain caused by inflammatory bowel disease (IBS) and painful menstruation (dysmenorrhea). The results suggest that omega-3 fatty acids, along with conventional therapies such as NSAIDs, may help relieve joint pain associated with these conditions.

Systemic lupus erythematosus (SLE)

Several small studies suggest that EPA and fish oil may help reduce symptoms of lupus, an autoimmune condition characterized by fatigue and joint pain. However, 2 small studies found fish oil had no effect on lupus nephritis (kidney disease caused by lupus, a frequent complication of the disease).

Osteoporosis

Some studies suggest that omega-3 fatty acids may help increase levels of calcium in the body and improve bone strength, although not all results were positive. Some studies also suggest that people who don't get enough of some essential fatty acids (particularly EPA and gamma-linolenic acid [GLA], an omega-6 fatty acid) are more likely to have bone loss than those with normal levels of these fatty acids. In a study of women over 65 with osteoporosis, those who took EPA and GLA supplements had less bone loss over 3 years than those who took placebo. Many of these women also experienced an increase in bone density.

Depression

Studies have found mixed results as to whether taking omega-3 fatty acids can help depression symptoms. Several studies have found that people who took omega-3 fatty acids in addition to prescription antidepressants had a greater improvement in symptoms than those who took antidepressants alone. Other studies show that omega-3 fatty acid intake helps protect against postpartum depression, among other benefits. However, other studies have found no benefit.

Studies are also mixed on whether omega-3 fatty acids alone have any effect on depression.

Depression is a serious illness and you should not try to treat it on your own. See a doctor for help.

Bipolar disorder

In a clinical study of 30 people with bipolar disorder, those who took fish oil in addition to standard prescription treatments for bipolar disorder for 4 months experienced fewer mood swings and relapse than those who received placebo. But another 4 month long clinical study treating people with bipolar depression and rapid cycling bipolar disorder did not find that EPA helped reduce symptoms.

Schizophrenia

Preliminary clinical evidence suggests that people with schizophrenia may have an improvement in symptoms when given omega-3 fatty acids. However, a recent well designed study concluded that EPA supplements are no better than placebo in improving symptoms of this condition.

Attention deficit/hyperactivity disorder (ADHD)

Children with attention deficit/hyperactivity disorder (ADHD) may have low levels of certain essential fatty acids (including EPA and DHA). In a clinical study of nearly 100 boys, those with lower levels of omega-3 fatty acids had more learning and behavioral problems (such as temper tantrums and sleep disturbances) than boys with normal omega-3 fatty acid levels.

However, studies examining whether omega-3 fatty acids help improve symptoms of ADHD have found mixed results. A few studies have found that omega-3 fatty acids helped improve behavioral symptoms, but most were not well designed. One study that looked at DHA in addition to stimulant therapy (standard therapy for ADHD) found no effect. More research is needed, but eating foods that are high in omega-3 fatty acids is a reasonable approach for someone with ADHD.

Cognitive decline

A number of studies show that reduced intake of omega-3 fatty acids is associated with increased risk of age related cognitive decline or dementia, including Alzheimer's disease. Scientists believe the omega-3 fatty acid DHA is protective against Alzheimer's disease and dementia.

Skin disorders

In one clinical study, 13 people with sun sensitivity known as photo dermatitis showed less sensitivity to UV rays after taking fish oil supplements. However, topical sunscreens are much better at protecting the skin from damaging effects of the sun than omega-3 fatty acids. In another study of 40 people with psoriasis, those who took EPA with their prescription medications did better than those treated with the medications alone. However, a larger study of people with psoriasis found no benefit from fish oil.

Inflammatory bowel disease (IBD)

Results are mixed as to whether omega-3 fatty acids can help reduce symptoms of Crohn's disease and ulcerative colitis, the 2 types of IBD. Some studies suggest that omega-3 fatty acids may help when added to medication, such as sulfasalazine (a standard medication for IBD). Others find no effect. More studies are needed. Fish oil supplements can cause side effects that are similar to symptoms of IBD (such as flatulence, belching, bloating, and diarrhea).

Asthma

Studies examining omega-3 fatty acids for asthma are mixed. In one small, well designed clinical study of 29 children with asthma, those who took fish oil supplements rich in EPA and DHA for 10 months reduced their symptoms compared to children who took placebo. However, most studies have shown no effect.

Macular Degeneration

A questionnaire given to more than 3,000 people over the age of 49 found that those who ate more fish were less likely to have macular degeneration (a serious age related eye condition that can progress to blindness) than those who ate less fish. Similarly, a clinical study comparing 350 people with macular degeneration to 500 without the eye disease found that those with a healthy dietary balance of omega-3 and omega-6 fatty acids and more fish in their diets were less likely to have macular degeneration.

Menstrual pain

In one study of 42 women, they had less menstrual pain when they took fish oil supplements than when they took placebo.

Coloncancer

Eating foods rich in omega-3 fatty acids seems to reduce the risk of colorectal cancer. For example, Eskimos, who tend to have a high fat diet, but eat significant amounts of fish rich in omega-3 fatty acids, have a low rate of colorectal cancer. Animal studies and laboratory studies have found that omega-3 fatty acids prevent worsening of colon cancer. Preliminary studies suggest that taking fish oil daily may help slow the progression of colon cancer in people with early stages of the disease. If you have colorectal cancer, ask your doctor before taking any supplements.

Breast cancer

Although not all experts agree, women who eat foods rich in omega-3 fatty acids over many years may be less likely to develop breast cancer. More research is needed to understand the effect that omega-3 fatty acids may have on the prevention of breast cancer.

Prostate cancer

Population based studies of groups of men suggest that a low fat diet including omega-3 fatty acids from fish or fish oil help prevent the development of prostate cancer.

Dietary Sources

Fish, plant, and nut oils are the primary dietary source of omega-3 fatty acids. Eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) are found in cold water fish such as salmon, mackerel, halibut, sardines, tuna, and herring. ALA is found in flaxseeds, flaxseed oil, pumpkin seeds, pumpkin seed oil, purslane, perilla seed oil, walnuts, and walnut oil. The health effects of omega-3 fatty acids come mostly from EPA and DHA. ALA from flax and other vegetarian sources needs to be converted in the body to EPA and DHA. Many people do not make these conversions very effectively, however. This remains an ongoing debate in the nutrition community; fish and sea vegetable sources of EPA and DHA versus vegetarian sources of ALA. Other sources of omega-3 fatty acids include sea life such as krill and algae.

Available Forms

Both EPA and DHA can be taken in the form of fish oil capsules. Flaxseed, flaxseed oil, fish, and krill oils should be kept refrigerated. Whole flaxseeds must be ground, and need to be used within 24 hours, so the ingredients stay active. Flaxseeds are also available in ground form in a special mylar package so the components in the flaxseeds stay active.

Be sure to buy omega-3 fatty acid supplements made by established companies who certify that their products are free of heavy metals such as mercury, lead, and cadmium.

NB: Young Living's Omegagise is produced free from heavy metals, and chemicals. Research has found that omega 3 supplements can contribute to health issues, and this relates to the unstable nature of these fatty acids.

Consequently it is very important to purchase good quality omega 3 supplements. Young Living uses essential oils stabilize the fatty acid, and also to enhance the bioavailability of the omega 3 into the cells. Vitamin D and CoQ10 have been included to synergistically enhance the health benefits of Young Living's Omega 3 supplement.

How to Take It

Dosing for fish oil supplements should be based on the amount of EPA and DHA, not on the total amount of fish oil. Supplements vary in the amounts and ratios of EPA and DHA. A common amount of omega-3 fatty acids in fish oil capsules is 0.18 grams (180 mg) of EPA and 0.12 grams (120 mg) of DHA. Different types of fish contain variable amounts of omega-3 fatty acids, and different types of nuts or oil contain variable amounts of ALA. Fish oils contain approximately 9 calories per gram of oil.

Children (18 years and younger)

There is no established dose for children. Omega-3 fatty acids are used in some infant formulas. Fish oil capsules should not be used in children except under the direction of a health care provider. Children should avoid eating fish that may be high in mercury, such as shark, swordfish, king mackerel, and tilefish. (See Precautions section.)

Adults

Do not take more than 3 grams daily of omega-3 fatty acids from capsules without the supervision of a health care provider, due to an increased risk of bleeding.

- For healthy adults with no history of heart disease: The American Heart Association (AHA) recommends eating fish at least 2 times per week.*
- For adults with coronary heart disease: The AHA recommends an omega-3 fatty acid supplement (as fish oils), 1 gram daily of EPA and DHA. It may take 2 - 3 weeks for benefits of fish oil supplements to be seen. Supplements should be taken under the direction of a physician.*
- For adults with high cholesterol levels: The AHA recommends an omega-3 fatty acid supplement (as fish oils), 2 - 4 grams daily of EPA and DHA. It may take 2 - 3 weeks for benefits of fish oil supplements to be seen. Supplements should be taken under the direction of a physician.*
- For adults with high blood pressure, scientists generally recommend 3 - 4 grams per day, but you should only take under the supervision of a health care provider.*

Precautions

Because of the potential for side effects and interactions with medications, you should only take dietary supplements only under the supervision of a knowledgeable health care provider.

Omega-3 fatty acids should be used cautiously by people who bruise easily, have a bleeding disorder, or take blood thinning medications including warfarin (Coumadin), clopidogrel (Plavix), or aspirin. High doses of omega-3 fatty acids may increase the risk of bleeding, even in people without a history of bleeding disorders -- and even in those who are not taking other medications.

Fish oil can cause gas, bloating, belching, and diarrhea. Time release preparations may reduce these side effects, however.

People with either diabetes or schizophrenia may lack the ability to convert alpha-linolenic acid (ALA) to eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA), the forms more readily used in the body. People with these conditions should be sure to get enough EPA and DHA from their diets. Also, people with type 2 diabetes may experience increases in fasting blood sugar levels while taking fish oil supplements. If you have type 2 diabetes, use fish oil supplements only under the supervision of a health care provider.

Although studies suggest that eating fish (which includes the omega-3 fatty acids EPA and DHA) may reduce the risk of macular degeneration, a recent study including 2 large groups of men and women found that diets rich in ALA may increase the risk of this disease. Until more information becomes available, people with macular degeneration should get omega-3 fatty acids from sources of EPA and DHA, rather than ALA.

Fish and fish oil may protect against prostate cancer, but some suggest that ALA may be associated with increased risk of prostate cancer in men. More research in this area is needed.

Some fish may contain potentially harmful contaminants, such as heavy metals (including mercury), dioxins, and polychlorinated biphenyls (PCBs). For sport caught fish, the U.S. Environmental Protection Agency (EPA) recommends that pregnant or nursing women eat no more than a single 6 ounce meal per week, and young children less than 2 ounces per week. For farm raised, imported, or marine fish, the U.S. Food and Drug Administration recommends that pregnant or nursing women and young

children avoid eating types with higher levels of mercury (such as mackerel, shark, swordfish, or tilefish), and eat up to 12 ounces per week of other fish types.

Buy fish oil from a reputable source that tests to make sure there is no mercury or pesticide residues in its products.

NB: Young Living's OmegaGise meets all of these requirements, and has increased the bioavailability of their product with the use of essential oils, and have included CoQ10 and Vit D to assist Cardiovascular function.

These statements about OmegaGise have not been evaluated by the Therapeutic Goods Administration or the Food and Drug Administration. This information and this product is not intended to diagnose, treat, cure or prevent disease.

Source: Omega-3 fatty acids | University of Maryland Medical Center <http://umm.edu/health/medical/altmed/supplement/omega3-fatty-acids#ixzz2wvdareaJ>

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