

# Fish Oils

Fish oils are rich in omega-3 fatty acids which include EPA (eicosapentanoic acid) and DHA (docosahexanoic acid). These oils are usually found in some fish. Fish oils are primarily used to treat high triglyceride levels. It is not uncommon for low density lipoprotein cholesterol (LDL-C) levels to increase when triglyceride levels are lowered significantly. If this occurs, your physician will discuss the clinical importance of this with you. Fish oil is also used in patients that have heart disease (i.e. have had a heart attack or angioplasty or stenting of an artery in the heart) to lower their risk of having a heart attack.

## American Heart Association recommendations

**For people that need to lower triglycerides:** 2-4 grams of EPA + DHA per day provided as capsules. This dose generally lowers triglycerides 20-50%.

**For patients with heart disease:** 1 gm of EPA+ DHA per day (preferably from fatty fish); fish oil supplements can be considered. Fatty fish include mackerel, herring, sardines, rainbow trout, salmon and halibut (2-4 ounce serving).

**For people without heart disease:** eat a variety of fish (preferably fatty fish) at least twice weekly; include oils and food rich in alpha linolenic acid (flaxseed, canola and soybean oils, flaxseed and walnuts).

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## How supplied

Fish oils are available over-the-counter in pharmacies and health food stores in gel capsule form. Different brands may have varying amounts of DHA and EPA. You should gradually increase the dose to minimize some side effects. Doses of 6-10 capsules per day are not unusual when treating high triglycerides.

### EXAMPLE

Week	Breakfast	Dinner
1	None	1
2	1	1
3	1	2
4	2	2
5	2	3
6	3	3

## Common side effects

Nausea, diarrhea, heartburn or reflux. Reflux can be decreased or avoided by storing fish oil in the freezer.

## Rare side effects

Some studies have reported an increase in bleeding parameters in patients on fish oils. However, this has never been associated with clinically significant bleeding problems. As a precaution, fish oils should be stopped 1 week before surgery.

Fish oils have also been associated with a temporary or transient increase in blood sugars (glucose). This has occurred almost exclusively in patients with diabetes. This effect usually is seen for a few weeks. Blood sugar levels then eventually return to pre-fish oil levels, even if the patient stays on fish oils.

Some evidence recommends avoiding fish oils in patients with defibrillators, as it may increase the risk of arrhythmias.

There is a manufacturing process used to deodorize newer fish oil supplements, so fishy odor to the breath is less common these days and very uncommon in doses < 3 gram per day.

## Interactions with other medications

To date, fish oils have not been associated with any clinically significant bleeding tendencies. However, there are theoretical concerns, especially in those patients who are taking an aspirin every day to prevent cardiovascular events. To be on the safe side, we recommend that aspirin doses be limited to one baby aspirin (81 mg) per day or half of a regular aspirin (325mg) tablet while these patients are taking fish oils. Fish oil should be used with caution, if at all, in conjunction with blood thinning agents such as coumadin, heparin, or enoxaparin. Fish oil absorption may be decreased if patient takes orlistat (Xenical®, Alli®) within 2 hours of fish oil supplement.

# Fish Oil Products

## Why are these particular products listed?

The following products were tested by an independent company called Consumer Lab which verified they contained the claimed amount of EPA and DHA and were found to have a safe level of mercury and polychlorinated biphenyls (PCB's).

## How many capsules/softgels do I need to take daily?

Add the EPA and the DHA milligrams together to determine the contents of omega-3 per capsule/softgel. (i.e. 216mg EPA + 144mg DHA = 360mg of fish oil). If the recommended daily dose is 1000mg, then you would need to take 3 capsules daily to reach approximately 1000mg dose (360mg x 3 =1080mg).

## Why do some products state they contain 1000mg, but actually have much less omega-3 fatty acids?

The 1000mg is the total amount of FAT in the product, sometimes including polyunsaturated fat (the EPA and DHA), monounsaturated fat, and sometimes even cholesterol and saturated fat. Some product labels include all the details about the contents and some do not.

## What should I know about products that contain omega-6?

Omega-6 is one of the essential fatty acids. Linoleic acid is the predominant dietary omega-6 available in many cooking oils. There is an ideal ratio of the amount of omega-6 to omega-3 fatty acids (3:1) we should ingest; however there is no shortage of omega-6 in the American diet. There is no need to take an omega-6 supplement and excess omega-6 has been linked to cardiovascular and other diseases.

## Does cod liver oil do the same thing as omega-3?

Cod liver oil comes from the liver of the fish and contains EPA and DHA typically but is very high in vitamin D and vitamin A and should be taken in limited quantities (to avoid overdose).

Product Name	EPA	DHA
GNC® Triple Strength Fish Oil	734mg	266mg
Kirkland Signature™ Fish Oil	142.9mg	141.9mg
Minami Garden of Life® Platinum	756mg	228mg
Nature Made® Fish Oil	683mg	252mg
Nordic Naturals® Ultimate® Omega – lemon flavor	1460mg	1010mg
Solgar® Triple Strength Omega-3	504mg	378mg

Reference: [consumerlab.com](http://consumerlab.com)