

Omega-3s: Fats You Should and Can Eat

Omega-3 fatty acids are a type of fat you can easily add to your diet to improve your health.

In most individuals, dietary intake of omega-3 fats is too low. Eating more omega-3s is important because the body uses them to form special, unique molecules. These molecules perform functions within cells that lead to improved health. Each molecule can function differently in different cells, resulting in many beneficial effects on health. When we eat foods high in omega-3s, more of the health promoting molecules are made, helping cells perform tasks that lead to benefits for several disorders.

A NEW LOOK AT ONE TYPE OF FAT

After years of being told to cut back the fat in your diet, one group of fats needs to be included more often: omega-3s. Studies have suggested these fats to be helpful for conditions such as **heart disease, depression, rheumatoid arthritis, allergies, bipolar disorder, attention deficit hyperactivity disorder, stroke, lupus,** and a type of renal disease.

Only a few foods are rich in omega-3s, but you can learn to include them as part of a balanced diet to benefit your health.



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Omega-3s in a balanced diet benefit the health conditions listed on this page.

Arthritis

Omega-3s may improve rheumatoid, psoriatic, and osteoarthritis. Molecules made from omega-3s do not lead to the inflammation that is so destructive in arthritic diseases.

Cancer

Omega-3s slow tumor development. Tumor cells do not grow or spread as much, and they die more easily. In addition, chemotherapy is more effective, has fewer side effects, and causes less weight loss if omega-3s are included in the patient's diet.

Bipolar disorder and depression

Omega-3 supplements can stabilize mood. Bipolar disorder, depression, schizophrenia, and other psychiatric problems have shown improvement with supplementation.

Omega-3s are a type of fat. Here are three found in foods we eat.

- **Eicosapentaenoic acid (EPA)**
- **Docosahexaenoic acid (DHA)**
- **Alpha Linolenic acid (ALA)**

Balance omega-3s by decreasing total fat and saturated fat, and increasing omega-3 fat.

Heart disease and strokes

Omega-3s help keep the heartbeat stable, decrease blood clots, keep arteries open and lower the "bad" LDL cholesterol and triglycerides.

Attention deficit hyperactivity disorder (ADHD)

Blood levels of omega-3s were found to be lower in some ADHD children. Researchers are studying this relationship to determine how ADHD and omega-3s are connected.

Benefits have been shown for **bone development** and for persons with **systemic lupus erythematosus** and **kidney disease**. Omega-3s are vital for eye and brain function in the developing fetus and in infants. Other benefits have been suggested, so stay tuned for future research findings.

Here are three easy ways to increase your omega-3s:

- Eat foods high in omega-3s.
- Use foods that have been processed or changed to include more omega-3s.
- Take omega-3 supplements.

Did you know?

Canning fish does not destroy omega-3s. Get more omega-3 fatty acids with canned salmon, tuna, sardines and herring.



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FOODS HIGH IN OMEGA-3S

Grain

Flaxseed
Flaxseed meal
Oat germ
Wheat germ
Cereals (Uncle Sam's, Red River Cereal, Hodgson Mill Multigrain)

Nuts

Walnuts
Butternuts
Brazil nuts
Pine nuts

Oil

Canola

Fish

Salmon
Anchovies
Sardines
Herring
Tuna
Whitefish
Halibut
Bluefish
Sweet and
Rainbow smelt

Vegetables

Purslane
Leeks
Spinach
Cauliflower
Broccoli
Leafy greens

FOODS THAT CAN BE MODIFIED TO HAVE MORE OMEGA-3S

Eggs
Milk
Meat from animals fed a diet rich in omega-3s
Soft or liquid margarine
Salad dressing made with some canola oil

SUPPLEMENTS

Concentrated, deodorized fish oils
Algae supplements
Microencapsulated powders

SAFETY ISSUES

Cod liver oil should not be used as an omega-3 supplement: The high vitamin A levels can be toxic.

Avoid mackerel. Although it is a good source of omega-3, it may contain methyl mercury.

Excessive omega-3 supplements may increase risk of bleeding. Check with your doctor if you use aspirin or medication to reduce blood clotting.



Ask yourself:

Which of these foods listed in the box above are part of my routine diet?

What listed foods could I eat more often?

What do I need to know to add more omega-3s to my diet?

OMEGA-3 FOODS ARE EASY TO PURCHASE

Fresh fish should be sold on crushed ice; cubes damage the flesh. Ask when the fish was delivered, then judge the freshness. Look for:

- Fresh, clean “sea” aroma – not a strong odor.
- Slick, moist skin; firmly attached scales; flexible, moist, full fins.
- Firm, elastic flesh; no fingerprint indentations.
- Clear and full eyes.
- Gills red or maroon in color.
- Unswollen belly with no gas.

Eat fresh fish the day it is purchased. Store between two bags of crushed ice in the coldest part of your refrigerator.

Frozen fish must be free of white patches and firmly frozen. Select a package buried deep in the freezer. If you plan to use it later, keep it frozen.

Flaxseed and flaxseed meal are best stored in the refrigerator and used within two to three months. Flaxseed oil spoils easily, so refrigerate and buy only a three-month supply.

Buy canola oil that is cold-pressed or unrefined: It will contain more antioxidants. Canola oil advertised as better for high-heat cooking or longer shelf life has fewer omega-3s. Avoid a canola/corn oil blend: It is lower in omega-3s.

Examine your choices

Food	Some Good Omega-3 Choices	What I Buy	✓ If You Plan to Change
Oil	canola		
Nuts	walnuts, brazil nuts, pine nuts		
Fish	salmon, tuna, herring sardines, halibut		
Cereal	wheat germ, flaxseed-based		
Eggs	high omega eggs		
Vegetables	green, leafy vegetables		

Want more information?

The Omega Diet, A. Simopoulos, M.D., and Jo Robinson. 1999. HarperCollins Publishers, \$14, ISBN 0-06-093023-3.

Omega Eggs-A Dietary Source of n-3 Fatty Acids, Scheideler, S.E. and Lewis, N.M., NebFacts, NF97-354, Cooperative Extension UN-Lincoln, Lincoln, NE 68583.

Visit our Omega-3 Web site: www.oznet.ksu.edu/humannutrition/omega3.htm

• recipes • web links • more information about omega-3s and health • help with purchasing omega-3 sources • omega-3 dietary analysis •

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