

## Polyunsaturated Fatty Acids and Diet

Omega-6 and omega-3 fatty acids are called polyunsaturated fats because they have many double bonds (poly=many). Your body doesn't have the enzymes to produce them, so you must get them from your diet.

Scientists suspect that a distorted ratio of these polyunsaturated fatty acids may be one of the most damaging aspects of the Western diet. But omega-6s and [omega-3s](#) don't have the same effects. Scientists believe omega-6s are pro-inflammatory, while omega-3s are anti-inflammatory ([1Trusted Source](#)).

There are many [types of omega-3 fats](#), which differ based on their chemical shape and size. Here are the three most common:

- **Eicosapentaenoic acid (EPA):** This 20-carbon fatty acid's main function is to produce chemicals called eicosanoids, which help reduce inflammation. EPA also helps reduce symptoms of depression ([2Trusted Source](#), [3Trusted Source](#)).
- **Docosahexaenoic acid (DHA):** A 22-carbon fatty acid, [DHA](#) makes up about 8% of brain weight and is extremely important for normal brain development and function ([4Trusted Source](#)).
- **Alpha-linolenic acid (ALA):** This 18-carbon fatty acid can be converted into EPA and DHA, although the process is not very efficient. ALA is mainly used by the body for energy ([5Trusted Source](#)).

Omega-6 fatty acids are also essential, so you need to obtain them from your diet. These fats are primarily used for energy. The most common omega-6 fat is linoleic acid, which can be converted into longer omega-6 fats such as arachidonic acid (ARA) ([33Trusted Source](#)). Like EPA, ARA is used to produce eicosanoids. However, the eicosanoids produced by ARA are more pro-inflammatory ([34Trusted Source](#), [35Trusted Source](#)).

Pro-inflammatory eicosanoids are important chemicals in the immune system. However, when too many of them are produced, they can increase inflammation and inflammatory disease ([36Trusted Source](#)).

Of course, inflammation is essential for your survival. It helps protect your body from infection and injury, but it can also cause severe damage and contribute to disease when it's chronic or excessive. In fact, chronic inflammation may be one of the leading drivers of the most serious modern diseases, including heart disease, metabolic syndrome, diabetes, arthritis, Alzheimer's and many types of cancer.

Scientists have hypothesized that a diet high in omega-6s but low in omega-3s increases inflammation, while a diet that includes balanced amounts of each reduces inflammation ([2Trusted Source](#)). Anthropological evidence also suggests that the ratio of omega 6 to omega 3 human beings evolved eating was somewhere around 1:1, while the ratio today is about 16:1 ([3](#)).

Those who follow a Western diet are typically eating way too much omega-6s relative to omega-3s. Western populations are eating large amounts of processed [seed and vegetable oils](#). Some of these oils are loaded with omega-6s. Soybean oil is currently the biggest source of omega-6 fatty acids in the US because it is really cheap and found in all sorts of processed foods. If you want to improve your ratio of omega-6 to omega-3, it's probably a bad idea to eat a lot of omega-3 to compensate. Having a relatively low, balanced amount of each is best.

The single most important thing you can do to reduce your omega-6 intake is avoid processed seed and vegetable oils that are high in omega-6, as well as the processed foods that contain them.

Content analysis shows that [butter](#), [coconut oil](#), lard, [palm oil](#) and [olive oil](#) (avocado and macadamia nut oils are very similar to olive oil) are all relatively low in omega-6. In contrast, sunflower, corn, soybean and cottonseed oils contain the highest amounts. Peanut oil and flaxseed oil falls between the high and low oils. For frying or sauteing use coconut or palm oil. Oils to avoid eating:

- Soybean oil
- Corn oil
- Cottonseed oil
- Canola oil
- Rapeseed oil
- Sunflower oil
- Sesame oil
- Grapeseed oil
- Safflower oil
- Rice bran oil

Also, note that animals farmed for meat are typically feed corn and soybeans, which significantly decreases the meat's omega 3 content. You should try to eat meat from animals raised on a diet similar to their natural diet.

*Compiled from various articles found on [Healthline.com](#)*