Supplement profile

Omega-3s for good health | Karlene Karst, RD

A daily balance of omega-3 essential fats is necessary for good health. Thanks to the news media and health advisors, fat-consciousness has become a part of daily life. In contrast to popular opinion that all fat is bad, there is such a thing as good fat.

Certain types of fats are essential; that is, they must be obtained from the diet, are necessary for health, and their absence from the diet can be detrimental. The good fats are the essential fatty acids (EFAs) from the omega-3 and omega-6 families. A healthy balance of EFAs is critical to total body health, both inside and out. However, as a result of the overconsumption of certain oils and fats, including corn, sunflower, and safflower oils, margarines, and processed foods high in trans fats, the North American population consumes excessive amounts of the omega-6s (linoleic and arachidonic acid) and very low levels of omega-3s.

**Dietary deficiencies**

There are three important omega-3 fatty acids: alpha linolenic acid (ALA), eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA). ALA is found in plant-based oils like flaxseed, perilla, or soybean oils as well as green leafy vegetables, and nuts and seeds such as walnuts, almonds, and flaxseeds.

Ideally, ALA should be metabolized in the body into the longer chain fatty acids, EPA and DHA, which can also be found in cold-water fatty fish, including salmon, tuna, mackerel, sardines, and anchovies. EPA is directly responsible for the production of anti-inflammatory prostaglandins, which are out of balance in most individuals.
due to the plethora of pro-inflammatory omega-6s in our diet. However factors such as aging, smoking, and consuming trans fats and alcohol can prevent the conversion of ALA into EPA and DHA. As a result, most North Americans are deficient in them.

Heart health
In 1999 the Lancet published the largest study to date on fish oils and heart health. The placebo-controlled trial included more than 11,000 heart attack patients who were followed for 3 to 5 years. The patients who took 850 mg per day of a fish oil supplement showed a 45-percent decrease in risk of sudden cardiac death and a 20-percent reduction in mortality from all causes.

Another landmark study was published in the Journal of the American Medical Association (April 2002). The study examined the diets of 80,000 female nurses over the course of 14 years and found that their risk of stroke due to blood clotting was reduced by almost 50 percent by eating fish two to four times a week.

The evidence of fish oil's protective powers is so compelling that the American Heart Association now urges everyone to eat at least two three-ounce servings of fatty fish per week. The Heart Association advised people who already have heart disease to consume one gram of EPA and DHA from fish oils per day to help reduce their triglyceride levels. This is one of the few times that a major health organization has endorsed dietary supplements for treating or preventing disease.

Currently, omega-3s are also being studied for their role in preventing or treating bipolar disorder, Alzheimer's, schizophrenia, stress, arthritis pain, ulcerative colitis, and type 2 diabetes. A significant link among some of these conditions is inflammation.

The inflammation connection
Inflammation is caused by a variety of factors, but one of the most significant is nutrition. An imbalance of the fatty acids can lead to serious inflammation, which manifests itself in a variety of disease conditions. Omega-3 fatty acids, specifically EPA, produce anti-inflammatory eicosanoids, most notably prostaglandin E2. Research has confirmed that when the body is given EPA from fish oil, the levels of inflammatory mediators decrease, resulting in improvements in rheumatoid arthritis and cardiovascular disease.

Good fats for good health
Consuming omega-3s daily is a vital component to overall health and well-being. As essential nutrients, they are required by our bodies, yet we aren't receiving the necessary levels in our diets. We can correct this imbalance by increasing our dietary consumption of the omega-3s from plant-based sources and cold-water fatty fish. Supplementing with a high-quality omega-3 source (1,000 mg of omega-3s daily) is also recommended for preventing and treating numerous diseases.
