



News You Can Use

Omega 3

Every cell in our body is surrounded by a cell membrane composed mainly of fatty acids. The cell membrane allows the proper amounts of necessary nutrients to enter the cell, and ensures that waste products are quickly removed from the cell.

To perform these functions optimally, however, the cell membrane must maintain its integrity and fluidity. Cells without a healthy membrane lose their ability to hold water and vital nutrients. They also lose their ability to communicate with other cells. Researchers believe that loss of cell to cell communication is one of the physiological events that leads to growth of cancerous tumors.

Because cell membranes are made up of fat, the integrity and fluidity of our cell membranes is determined in large part by the type of fat we eat. Remember that saturated fats are solid at room temperature, while omega 3 fats are liquid at room temperature. Researchers believe that diets containing large amounts of saturated or hydrogenated fats produce cell membranes that are hard and lack fluidity. On the other hand, diets rich in omega 3 fats produce cell membranes with a high degree of fluidity.

Omega 3 fatty acids may play a role in the prevention and/or treatment of the following health conditions:

- Alzheimer's disease
- Asthma
- Attention deficit hyperactivity disorder (ADHD)
- Bipolar disorder
- Cancer
- Cardiovascular disease
- Depression
- Diabetes
- Eczema
- High blood pressure
- Huntington's disease
- Lupus

- Migraine headaches
- Multiple sclerosis
- Obesity
- Osteoarthritis
- Osteoporosis
- Psoriasis
- Rheumatoid arthritis

Dr. Frank Sacks, Professor of Cardiovascular Disease Prevention, Department of Nutrition, Harvard School of Public Health answers a couple of questions:

What are omega-3 fatty acids, and why should I make sure to include them in my diet?

Omega-3 fatty acids (also known as n-3 fatty acids) are polyunsaturated fatty acids that are essential nutrients for health. We need omega-3 fatty acids for numerous normal body functions, such as controlling blood clotting and building cell membranes in the brain, and since our bodies cannot make omega-3 fats, we must get them through food. Omega-3 fatty acids are also associated with many health benefits, including protection against heart disease and possibly stroke. In addition to these established benefits for cardiovascular disease, omega-3 fatty acids in high doses (e.g. 6 to 10 capsules per day) are used to treat depression. New studies are identifying potential benefits for a wide range of conditions including cancer, inflammatory bowel disease, and other autoimmune diseases such as lupus and rheumatoid arthritis.

What foods are good sources of omega-3 fatty acids? How much do I need to eat of these foods to get enough omega-3s?



There are two major types of omega-3 fatty acids in our diets: One type is alpha-linolenic acid (ALA), which is found in some vegetable oils, such as soybean, rapeseed (canola), and flaxseed, and in walnuts. ALA is also found in some green vegetables, such as Brussels sprouts, kale, spinach, and salad greens. The other type, eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA), is found in fatty fish. The body partially converts ALA to EPA and DHA. We do not know whether vegetable or fish omega-3 fatty acids are equally beneficial, although both seem to be beneficial. Unfortunately, most Americans do not get enough of either type.

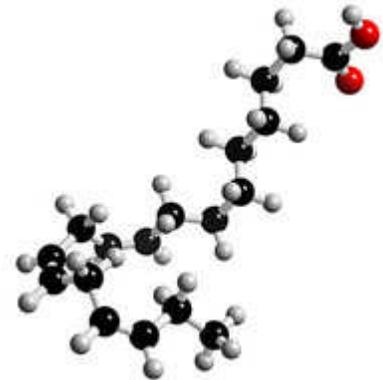
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Recent statistics indicate that nearly 99% of people in the United States do not eat enough omega 3 fatty acids. However, the symptoms of omega 3 fatty acid deficiency are very vague, and often can be attributed to some other health conditions or nutrient deficiencies. Consequently, few people (or their physicians, for that matter) realize that they are not consuming enough omega 3 fatty acids.

What conditions or symptoms indicate a need for more high-omega-3 foods?

- Depression
- Cardiovascular Disease
- Type 2 Diabetes
- Fatigue
- Dry, itchy skin
- Brittle hair and nails
- Inability to concentrate
- Joint pain

The latest research shows that the most promising health effects of essential fatty acids are achieved through a proper balance between omega-3s and omega-6s. The ratio to shoot for, experts say, is roughly 4 parts omega-3s to 1 part omega-6s. Most of us, they say, come up dangerously short. "The typical American diet has a ratio of around 20 to 1 -- 20 omega-6's to 1 omega-3 -- and that spells trouble," says Sandon, an assistant professor of nutrition at University of Texas Southwestern Medical Center in Dallas. While reducing your intake of omega-6s can help, getting more omega-3s from food is an even better way to go.



Polyunsaturated oils, including the omega 3 fats, are extremely susceptible to damage from heat, light, and oxygen. When exposed to these elements for too long, the fatty acids in the oil become oxidized, a scientific term that simply means that the oil becomes rancid. Rancidity not only alters the flavor and smell of the oil, but it also diminishes the nutritional value. More importantly, the oxidation of fatty acids produces free radicals, which are believed to play a role in the development of cancer and other degenerative diseases. As a result, oils rich in polyunsaturated fatty acids should be stored in dark glass, tightly closed containers in the refrigerator or freezer. In addition, these oils should never be heated on the stove. So, instead of sautéing your vegetables in flaxseed or walnut oil, make a salad dressing using these oils.

Individuals who have disorders involving bleeding, who bruise very easily, or who are taking blood thinners should consult with a medical practitioner before taking supplemental omega 3 fatty acids.

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.

Yours in Good Health!

Sincerely,

Dr. Jack and Chris Ritchason
Back to Herbs Team

References:

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<http://www.webmd.com/diet/guide/good-fat-bad-fat-facts-about-omega-3>

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