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## The Oil Crisis

## by Raymond Francis

Oils are essential to human health. They rank among our most important nutrients, yet they are poorly understood by most people. Unfortunately, over the last 140 years there has been a massive shift in the type and quantity of oils consumed due to the development of the modern vegetable oil industry and the feeding of grains to livestock.

Experts now estimate that up to 90 percent of the U.S. population is not obtaining the correct assortment of oils in the proper amounts. This massive deficiency crisis is a major contributor to our unprecedented epidemic of chronic disease. Supplementing with the correct types of oils is essential. However, there is widespread confusion regarding which supplements to take, in which amounts, and why they are needed.

There are right oils and wrong oils. The right oils are important building blocks of life and are referred to as essential fatty acids (EFAs). EFAs are essential for building healthy cell membranes (the wall separating the interior of the cell from the rest of the world). EFAs are also used as raw materials for building other essential body chemicals. The body needs a constant supply of EFAs to build about one trillion new cells every day. When the right oils are not available, the body is forced to use what most Americans eat—the wrong oils. When the wrong oils are used to build the cell membrane, this compromises the structure and function of cells throughout the body, including interfering with the critical cell-to-cell communication necessary for keeping the body in balance. Wrong oils also interfere with the transportation of nutrients into cells and of metabolic wastes out. This is why anyone with a chronic disease, especially cancer, if they want to get well, must change the oil in their body. We wouldn't think of using the wrong oil in our car, yet we constantly use the wrong oils in our bodies.

Oils are also used as raw materials to make an important class of chemicals called prostaglandins. Prostaglandins are hormone-like compounds that are extremely important to human biochemistry. They regulate a variety of body functions including smooth muscle activity, digestion, brain function, and inflammatory processes.

The right oils include essential omega-3 and omega-6 fatty acids; these are types of molecules having a particular configuration. Some 3s and 6s are "essential" and must come from outside the body, while the body can manufacture others. However, 3s and 6s must be present in the correct balance to promote health. Unfortunately, in modern diets, the balance is out of whack. Experts estimate that the proper ratio of 3s to 6s is ideally about 1:1. By 1935, the ratio in the average American diet had increased to an unhealthy 1:8. Today it is even more unhealthy at 1:20, with a lot of people as bad as 1:50! In short, we get far too much omega-6 and not near enough omega-3 oils, and this change in ratios has paralleled our increase in chronic disease. Research indicates that 20 percent of us have so little omega-3s in our blood that it cannot be measured by standard tests. The primary reason for this epidemic imbalance is our excessive consumption of the wrong oils—corn, sunflower, peanut, soy, canola and safflower oils. These oils are high in omega-6 and low in omega-3, creating an imbalance in our bodies. Another reason these oils are wrong is that they have been processed at high temperatures, causing the creation of toxic transfatty acids for which there is no safe level.

Another contributor to our imbalance of 3s and 6s is our increased consumption of "make-believe" fish, meat and eggs. For example, more than 60 percent of the salmon available today has been farmed in an artificial environment and contains too much omega 6. Farmed fish do not eat the same diet as they do

in their natural environment. This changes their chemistry. The same holds true for beef and chicken. They are fed an unnatural diet of grains, which changes their natural fatty acid ratios. Consider that a real egg contains about 300 milligrams of the omega-3 fatty acid DHA and is a good source of omega 3, while a grain-fed, make-believe egg from the supermarket averages only 18. Nearly all cattle are shipped to feed lots prior to slaughter to "fatten them up." If you eat this grain-fed beef, as most uninformed Americans do (instead of organic, grass-fed beef, which is available), you will be getting too much omega 6.

Too much omega-6 and too little omega-3 oils have an inflammatory effect on the body. This is catastrophic because inflammation is a common denominator of all chronic disease; the wrong oils will initiate and perpetuate this disease process. Prostaglandins (as described earlier), produced from omega-6 fatty acids suppress the immune system and increase inflammation, heart disease, and cancer. When sufficient omega-3 oils are available, the prostaglandins produced from omega-3s offset those from the 6s, and thus, suppress inflammation, tumor development, blood pressure, water retention, platelet (blood) stickiness, and cholesterol levels.

Three of the most important omega-3 fatty acids in human nutrition are ALA (alpha-linolenic acid), DHA (docosahexaenoic acid), and EPA (eicosapentaenoic acid). Each of these molecules has a different size, shape, and use in the body, and we need them all. A rich source of ALA is flaxseed oil and a rich source of DHA and EPA is fish oil, and that is why we need to supplement with both kinds of oil.

Just as muscles are made of protein and bones of calcium, the human brain is more than 60 percent fat. DHA is the most abundant fatty acid in the brain, and an adequate supply, throughout life, is essential for brain and nervous system function. DHA forms critical receptors for the neurotransmitters dopamine and serotonin. If DHA is deficient and these receptors are made from other oils (such as the transfats from supermarket oils, margarine and vegetable shortening), these receptors will not function properly, contributing to our epidemic of attention deficit, depression and other mental disorders. This is why children with learning, memory, and behavior disorders can benefit from supplemental DHA. Violent crimes are often the result of DHA deficiency. Studies show that fish oil significantly inhibits cholesterol production, has dramatic anti-cancer effects and improves vision. DHA supplementation has been found to be beneficial to patients with a variety of problems ranging from hypertension, immune dysfunction, depression, schizophrenia, Alzheimer's, retinitis pigmentosa, attention deficit disorder, and dyslexia. Vegetarians and people on low- fat diets are especially vulnerable to DHA deficiency. With an oil deficiency epidemic of the magnitude we are experiencing, it should not be a surprise that in May of 1996 the American Psychiatric Association announced that 90 percent of our population have measurable brain abnormalities.

People suffering from depression are often prescribed Prozac, while those suffering attention deficit disorder are often prescribed Ritalin. Patients with arrhythmia, heart disease or cancer are prescribed other drugs and treatments. In fact, they may all need the same treatment—supplementation with the proper amount and assortment of essential fatty acids. As for how to assure you are getting what you need, essential fatty acids are found in almost all natural foods. What differs is the amount. Flaxseed oil is one of nature's richest sources of essential fatty acids. Other rich sources include fish, green leafy vegetables, nuts and seeds. Flaxseeds, freshly ground in a small coffee grinder, make an excellent addition to fresh salads, cereals (organic whole grains, not processed cereals in a box), and smoothies. A 1981 study in Biological Psychiatry found that the simple addition of flaxseed oil to the diet of schizophrenics resulted in significant improvement in two thirds of them. In addition, there was also a reduction in tinnitus, dry skin, dandruff, and fatigue. My choice for flaxseed oil is Barleans, and I recommend one tablespoon per day. Flaxseed oil is very rich in omega-3. However, if one carefully avoids omega 6s and uses this oil exclusively for a long period of time, a deficiency of omega-6s could result. A solution to this potential problem is to use a blended oil such as Udo's Choice where the ratio of omega-3s to omega-6s is closer to the ideal of 1:1, although most Americans' problem is too much omega-6, not too little.

As mentioned earlier, fish oil is a rich source of DHA and EPA. The recommended intake of DHA plus EPA is 650 milligrams per day or 1000 per day if pregnant or nursing. My favorite brand is Carlson's (available at Beyond Health). I take cod liver oil from fall to early spring, and fish oil the remainder of the year. The dose of cod liver oil would be one teaspoon per day per 50 pounds of body weight. The difference between fish oil and cod liver oil is that the latter is a rich source of vitamins D and A. Many people do not get sufficient vitamin D during the cooler times of the year due to inadequate sun exposure. Vitamin D is necessary for healthy bones and also protects against cancer. Beyond Health EFA Formula is also an excellent choice for supplementing DHA and EPA, and it contains omega-9 fatty acids as well. Omega-9 is the principle kind of fatty acid found in olive oil and daily intake of omega-9 fatty acids is also recommended. A 1995 study in the *Journal of the National Cancer Institute* found that women who consume olive oil more than once a day are 25 percent less likely to develop breast cancer than women who consume olive oil once a day or less. The brand I recommend is Beyond Health's.

An adequate supply of the proper assortment of oils is absolutely essential to human health. Since Americans consume too much of the wrong oils and too little of the right oils, we must make a conscious effort to avoid the bad oils found in everyday food products. Bad oils include virtually all the oils in a supermarket and those found in processed foods (i.e. - food packaged in jars, bottles, cans, tubs and boxes). Especially dangerous are all hydrogenated oils, these contain a lot of toxic transfatty acids so be sure to read food labels carefully.

Instead of processed foods, fill your grocery cart with fresh organic vegetables, fruits, grains, seeds, nuts and organic meats, eggs and fish. Use olive oil for cooking and salad dressings. Supplement with the oils mentioned above (flaxseed, cod liver, fish, Udos Choice and Beyond Health's EFA Formula) to assure that you are getting the proper assortment of these critical molecules.

Additional guidance and approved, high-quality oils can be obtained at Beyond Health by calling 800-250-3063, or online at www.beyondhealth.com.

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