

## The Dark Side of Good Fats

**While omega-3 fatty acids offer health benefits to most people, new research has found they may be dangerous to some patients.**

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Like many people, I take omega-3 fatty acids every day. I began doing so more than 20 years ago when I was completing my residency in internal medicine at the Massachusetts General Hospital of Harvard Medical School. Dr. Alexander Leaf, who was then chief of medicine and an inspiring mentor, had conducted pioneering research documenting the extraordinary health benefits of these fatty acids.

In the past few months, however, new studies have raised questions about whether the benefits are universal. The latest research is indicating that, for some people, the omega-3 fatty acids may actually be harmful, perhaps even lethal. Omega-3 fatty acids are found in cold-water fish (mackerel, herring, salmon, trout, sardines and albacore tuna), as well as oils from canola, soybean, flaxseed and walnuts. (In contrast, olive oil does not contain much of the omega-3 fatty acids.) In smaller concentrations, they are present in dark green leafy vegetables like kale and collard greens.

Dr. Leaf's studies, confirmed by those of others, found that consuming omega-3 fatty acids on a regular basis may reduce the risk of sudden cardiac death (which is as bad as it sounds) by 42 percent to as much as 90 percent by stabilizing the rhythm of your heart. Because of this, the American Heart Association recommends at least two servings of fish per week.

The omega-3 fatty acids may reduce triglycerides (a form of fat), lower blood pressure and decrease inflammation (thereby reducing arthritis and other inflammatory illnesses), as well as autoimmune diseases such as lupus. They can help to prevent excessive blood clots from forming which, in turn, may decrease the risk of a heart attack and stroke. They may help prevent irregular heartbeats such as atrial fibrillation.

When given to pregnant women and lactating mothers, omega-3 fatty acids (which are an important part of your brain) may actually increase your baby's IQ by six points or more and may reduce the incidence of allergic disease in the offspring. They also may reduce depression and may help prevent dementia. Some studies suggest that the omega-3 fatty acids may even reduce the risk of prostate cancer, breast cancer, and colon cancer.

Given these amazing benefits, I've been taking fish oil for many years and have been advising just about everyone else to do the same. I take fish-oil capsules (3 grams per day) in which pollutants such

as mercury, dioxin and PCBs that are often found in fish have been removed. This gives all the benefits of the omega-3 fatty acids without the extra fat, calories and pollutants that come from eating fish.

However, like many wonderful things in life, there is also a dark side to the omega-3 fatty acids. A recent British Medical Journal analysis of nearly 100 studies of omega-3 fatty acids found mixed benefits. In most people they were beneficial, but not in everyone. Some people actually got worse.

When Dr. Leaf first learned of these puzzling findings, he thought they were a little, well, fishy. But, after reviewing the data from his studies and others, and communicating with other investigators, he identified the subgroup of people who actually got worse: those with congestive heart failure or chronic recurrent angina (chest pain) due to insufficient blood flow to their heart. Dr. Leaf wrote in a forthcoming article in the August issue of the scientific journal *Fundamental & Clinical Pharmacology*, "Any patient with an advanced state of impaired cardiac function should not be prescribed fish oil fatty acids or be urged to eat fish!" As he told me in a telephone conversation, "For these people, it may kill them."

Why? When part of a person's heart receives insufficient blood flow due to coronary artery disease, that part of their heart becomes starved for blood and the oxygen that it carries. If it's temporary, they may get angina. If the deprivation is for more than a few hours, that part of the heart muscle begins to die and turns to scar tissue—in other words, a heart attack. If it's a small part of the heart, the person may live; if not, they may die.

If a moderate to large part of the heart muscle turns to scar tissue, then that person may suffer from what's called congestive heart failure. This means that the heart is barely able to pump enough blood to keep the person alive. Also, cells that are only barely receiving enough blood flow become hyperexcitable. This, in turn, can lead to an increased risk of irregular heartbeats, which, in turn, can cause sudden cardiac death.

The omega-3 fatty acids stabilize the rhythm of your heart by effectively removing these hyper-excitable cells from functioning, thereby reducing the likelihood of irregular heartbeats and sudden cardiac death. For most people, this is a very good thing and accounts for most of the large reduction in the likelihood of sudden cardiac death.

However, if you have congestive heart failure, your heart is barely pumping blood well enough to keep you alive. The omega-3 fatty acids may eliminate from function enough of these pumping cells that your heart is no longer able to pump sufficient blood to live, causing an increased risk of cardiac death.

For most people, omega-3 fatty acids remain highly beneficial. I still take them. But if you have congestive heart failure, chronic recurrent angina or evidence that your heart is receiving insufficient blood flow, talk to your doctor. If so, it may be prudent to avoid taking omega-3 fatty acids or eating foods that contain them.

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