



Beware of Fish Oil & Vegetable Oil



Dr. Harry Schick, DC
Highland Park, NJ 08904
732•249•9800

Every once in a while, an idea comes up and takes hold of popular culture. It is like an avalanche and rolls faster and faster knocking over everything in its path. The idea doesn't have to be true and accurate; it just has to be repeated often enough, by enough people to take on the aura of fact. If the idea is about something inconsequential, like the dating life of a popular singer or a quote falsely attributed to a long deceased army colonel, there is no real harm done. However, when the idea affects the health habits of millions in a harmful way, there is something seriously wrong that must be corrected. It is neither just nor fair that innocent, trusting people are misled by authorities who should know better.

Here are a Few Basic Facts You Need to Know

Number One: If you eat the wrong things often enough, you may not get sick immediately, but over time, the wrong things are often deadly.

Number Two: There are three basic food groups that we eat. One is *protein* which for most people is animal products (meat) and their derivatives (dairy, eggs). There is also protein in foods such as beans and grains. These are better classified as *carbohydrates* in terms of their overall effect on the body. Other carbohydrates include fruit and vegetables. The third food group is *fats*. This article is about this third group, fats.

Number Three: Fats can be categorized in two ways, saturated and unsaturated. These are terms you have probably heard before. Fats are made of three elements, carbon, hydrogen, and oxygen. Carbohydrates are also made of these three elements. Protein is made primarily of these three with a few other elements added. So most of what we eat is some combination of carbon, hydrogen and oxygen.

Number Four: Since most of our food is basically made of carbon, hydrogen, and oxygen there has to be a difference somewhere. A grain of rice is different than olive oil and a vegetable is different than an egg! The difference is in how these are put together. Both a desk and chair can be made of similar wood, but their shapes and the way they are held together make them functionally different. Similarly, "rat" and "art" are made of the three same letters but you are unlikely to ever confuse them. (If simple chemistry makes you dizzy or ill, you can skip to number nine, below).

Number Five: Let's look at one of our three elements, carbon. Carbon is an element with four hands. Each hand can hold onto or be connected to another element. A fat is considered saturated when all of carbon's hands are holding onto something different. The carbon below in **bold** is saturated; that is, all of its hand are holding something different: two are holding hydrogens and two are holding carbons.

Hydrogen + Carbon + **Carbon**

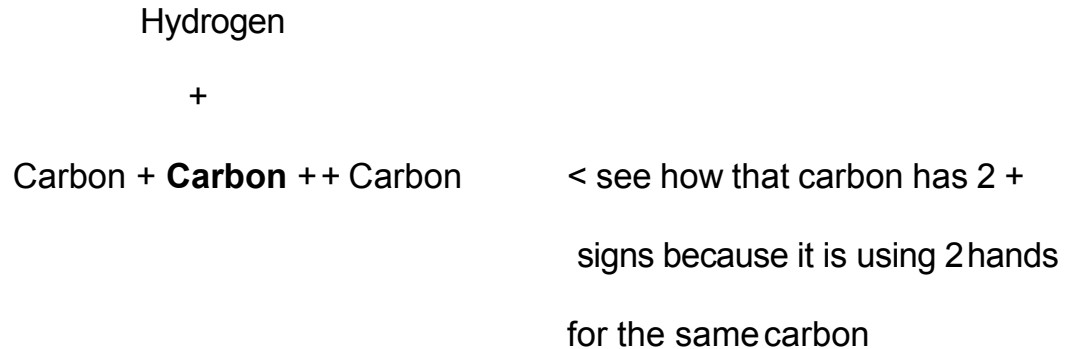
+ Carbon

+

Hydrogen

Imagine a chain of these connected together and you get the basic idea of a *saturated fat*.

Sometimes, instead of using one hand for each, it will use two hands for one carbon, one for another carbon and one for hydrogen. Look at the **bold** carbon below.



Because each hand is not holding something different, it is called *unsaturated*.

Now you are seeing just one segment of a fat. Imagine all of these carbons and hydrogens strung together and you get a large fat molecule. There are other things involved with a fat molecule, but we don't need to know them to understand the ideas that follow. For now, the key is knowing that a saturated fat has all hands holding different molecules and an unsaturated fat may have one or a few carbons double hand holding. The rest are all holding something different, like a saturated fat. If it only has one segment double holding it is called monounsaturated (mono=one). If there is more than one it is called polyunsaturated (poly=many).

That's the biggest piece of chemistry we need in order to understand what follows. There are three more small pieces.

Number Six: There are chemicals roaming around our bodies that are strong and have a free hand. They are looking to grab onto something with their empty hand because they are happier when all of their hands have something in them. They are called **free radicals**. The free radicals we are interested in love to grab hydrogens when they can.

Number Seven: Back to fats. *Saturated* fats hold on tightly to their hydrogens. Hungry free radicals cannot pry them loose. *Unsaturated* fats are a different story. In the area near the double bond holding, the hydrogens are not held so tightly. Free radicals can easily swoop into this area and grab off a hydrogen. They do this all the time, whenever they can. When they grab a hydrogen they totally change the nature of the fat. This is important: They totally change it!!

Number Eight: Once the hydrogen is stolen away by the free radical, the fat goes through a number of changes; ultimately oxygen is added in the place where hydrogen was stolen in a form called peroxide. The total change is called lipid peroxidation. Lipid means fat. Lipid peroxidation is a term we are going to use a number of times. Remember, it means an unsaturated fat that has been changed by a free radical into some weird foreign form. I hope it sounds scary, because it is.

Number Nine: So we see that unsaturated fats undergo the chemical change known as lipid peroxidation. Unsaturated fats include vegetable and seed oils such as canola, soy, corn, grapeseed, olive, almond, along with fish oil. Some are monounsaturated such as olive oil (one problem area) and others are polyunsaturated (many problems). After these unsaturated fats go through their initial breakdown, they often wind up with end products that are toxic to the cell and can be carcinogenic. We will discuss this much more in the coming pages. Prepare to be concerned/upset/etc.

Does all of this have anything to do with

Omega 3's and Omega 6's??!

The word omega has to do with families or categories of oils. As we said above, fats are long chains of carbons holding onto other carbons and hydrogens. If it is saturated all hands are busy with holding one specific thing. If it is unsaturated, some hands hold onto the same carbon and there is a weakly held hydrogen nearby. An omega six means that this double holding is at the sixth carbon (found

simply by counting) and an omega three is, guess where? At the third carbon. That's the chemical difference. *They are both unsaturated and, of course, subject to that nasty reaction known as lipid peroxidation.*

Let's Go Into More Detail About Omega 6

The major source of omega six is from seed oil. What is a seed? Well, most of us know that the seed is the part of the plant that is like the embryo or baby. It's like the baby in the mother. The seed sits in a shell. While it is in there, it needs to grow and begin its maturation. To do this it needs food and for most of these plants this food exists inside the shell with it, in liquid or oil form. This oil is the food which exists to nurture the seed. Seeds are planted in the beginning of warm spring weather after a cold winter and seed oil by its nature stays in liquid form during the cold so that the seed can eat it, until it is time for planting.

What the human food science world has done is take this oil and process it and bottle it. It is then sold to people who heat it to cooking temperatures. It was not designed for this purpose. Major sources of this oil include flax, canola, corn, soy, nuts, safflower and sunflower.

All of this oil is unsaturated. That means that it has at least one unstable part to it, where chemically it can be easily changed. We mentioned this above in the brief discussion on hydrogen and fats, etc.

As a result of this instability, there are two main types of devastating changes that omega 6 fats go through.

The First Problem with Omega 6 Oils is that...

Omega 6 oils easily change in the body into three different chemicals:

1. Leukotrienes—These are chemical messengers that are involved with inflammation. They trigger smooth muscles to contract and lead to *allergies* and *asthma*. A common question is why there are so many people with allergies and asthma these days. One need look no further than the

breakdown of seed oil omega 6 into leukotrienes for an answer. Singulair is popular drug that works by inhibiting leukotrienes. Anyone who has relief with singulair should consider eliminating omega 6 oils from their diet. Anyone with asthma or allergies should also consider this.

2. Thromboxanes—These chemicals cause blood vessels to constrict and are involved with high blood pressure. They are also involved with platelet aggregation and thrombus formation.
3. Prostaglandins- These chemical messengers are necessary for life. Some help with inflammation, some stop inflammation-both essential processes. The problem is with excess. With omega 6 excess through bad food consumption, an imbalance of prostaglandins follows. This leads to increases of pain and inflammation as seen in arthritis, decreased stomach acid, irregular hormone production, immune disease, auto immune disease, heart disease and so much more. Drugs used to treat prostaglandin imbalances include: aspirin, Celebrex, Motrin, cortisone, prednisone and other steroid drugs.

The production of these three chemicals is one of the two main problems with excessive intake of omega 6.

Do we need to eat omega 6 at all for our health? This is a good question. Although there are schools of thought on this, let's just say for now, there is plenty of omega 6 to be gotten in poultry, eggs, avocado and vegetables.

The Second Problem with Omega 6 oils is that...

Omega six oils easily undergo lipid peroxidation. This is the topic we discussed in some detail in the beginning. This is how hydrogen is lost and replaced by a combination with oxygen. When this happens and these foreign, distorted chemicals are left in the body, destruction follows.

Let's look at some of the byproducts of lipid peroxidation-those chemicals found in the body when omega 6 oils go through their breakdown:

1. Acrolein- an herbicide used to kill weeds
2. Malondialdehyde- a potentially mutagenic chemical which is found in arthritic joints
3. Hydroxynonen- implicated in certain cancers, nerve disease and breathing distress syndromes
4. Neuroprostanes-a nerve toxin

Now beside the presence of these chemicals there is a long list of studies showing the dangers of lipid peroxidation. Remember, when looking at these, you are reading effects of omega 6 fatty acids that you are likely, unfortunately eating.

These are all the result of eating polyunsaturated fatty acids:

1. Brain cells are affected producing swelling and ultimately brain cell destruction. (1)
2. Impairment of fetal and infant brain development. (2)
3. Patients with AIDS and cancer both show high levels of polyunsaturated fatty acids. (3)
4. Severe depression of the immune system. (4)
5. Enhancing the aging process. (5)

Add these to the earlier list: asthma, allergies, heart disease, inflammation, arthritis, nerve damage, brain dysfunction, accelerated aging..... a small number of the problems proven to be caused by omega 6 intake.

A better question:

What disease is not either begun or made worse by Omega 6 intake??

These Seven Pages describing the destruction by Omega 6 fatty acids, how they work and where they come from were a necessary *introduction* to our main topic

FISH OILS-the rest of the story!!

Fish oils contain omega 3 fatty acids. They differ from omega 6 in the area where the weakness is. Otherwise they are quite the same. So the question is now, why are fish oils recommended as the greatest thing going if omega 6 are shown to be so destructive?

Where Do Fish Oils Come From?

Fish oil for the most part comes from the liver of cod. Sometimes it can come from other fish such as salmon or shark. The fish liver is a good source of omega 3 because the fish eat water plants like microalgae that supply them with the omega 3 and they are then stored in the fish's liver. The main omega 3 oils that are found there are called EPA and DHA.

What is so Great About Fish Oil?

Great question, glad you asked!

It would seem that since the oils are unsaturated they should be a problem, not a help. Right. But everything I hear everywhere, from the media, doctors, and articles says that fish oil is great. Right again. Is it possible that both things are true, that they are helpful and they are a problem? And right you are, one more time. Let's explain—

Do you Remember, a few pages ago...

we discussed the problems of omega six oils? There were two main categories of problems. The first had to do with how they broke down into leukotrienes, thromboxanes, and prostaglandins. These chemicals in turn

caused asthma, allergies, joint inflammation, blood pressure problems, and so forth. Well, it turns out that the omega 3 oils found in fish oil prevent the conversion of omega 6 into these destructive chemicals by blocking enzyme reactions. Therefore, it makes sense that if you give someone who eats omega 6 oils (most Americans) a daily supply of fish oil, they might feel better. And they do. They can get relief from asthma, allergies, arthritis, etc. However, this is more like a drug effect than a nutritional one.

But Here Comes the Bad News...

They are even *more* likely to undergo lipid peroxidation than the omega 6 oils!!

Let's look at some of the scientific research on omega 3 oils and their damage:

1. Red blood cells are destroyed prematurely. (3-1)
2. Role in tumor promotion. (3-2)
3. Increases arthritic joints. (3-3)
4. DHA increases bone marrow damage. (3-4)
5. Increase in allergies. (3-5)
6. DHA increases atherosclerosis. (3-6,7)
7. Increased incidence of strokes and survival rate. (3-8,9)
8. EPA and DHA decrease exercise performance (3-10)
9. Lead to diabetes (3-11)
10. Increases tumor metastasis. (3-12,13)
11. Leads to degeneration of the spleen in animals. (3-14)
12. Leads to death of white blood cells. (3-15)
13. Cancer only occurs with unsaturated oils in the diet. (3-16)
14. Alcoholic cirrhosis occurs only with unsaturated fats. (3-17)

15. Heart disease occurs with adding unsaturated fats to diet. (3-18).
16. Leads to metastatic cancer. (3-19)
17. Fish oil specifically increases metastases. (3-20)

We can list another 50 studies showing the effects of the omega 3's found in fish oil. Let's step away from the list and discuss a few other things—just in case you are still tempted to use any of these deadly oils, whether from fish, vegetables, seeds or nuts.

Here are a few other outrageous facts about fish oil

- > Because of its chemical effects it was traditionally used as a base for paint and to prevent rust—not for "nutrition"
- > It is so suppressive to the immune system it has been used in transplant operations because it keeps the immune depressed so it won't reject the transplant
- > It has recommended for heart health because it sometimes lowers triglyceride levels in people. Why does it do this? Because it interferes with liver function! In fact, fish oil is associated with liver toxicity and an increased rate of artery sclerosis. (15)

Okay, Okay, Isn't There Some Way to Get the Benefits of Fish Oil Without the Horrific Effects??

Well, the problem with fish oil, again, is the lipid peroxidation. You may hear that antioxidants will protect you from this. Antioxidants are supposed to neutralize the free radicals that come along and destroy the fat. Well, we know that even with antioxidants, free radicals from fish oil can't be stopped..sorry. (16)

Again, they oxidize even faster than the omega 6 poisons.

Saving the "Best" for Last

Vanity, vanity, vanity

Fish oil makes you fat, discolors your skin and gives you wrinkles!!

All polyunsaturated oil increases wrinkles, whether you eat it or put it directly on your skin (might want to check your makeup!). The unsaturated fat in the skin is a target not only for wrinkles, but skin cancer (and we have been blaming this on the sun). Also, talking about your skin, lipofuscin also known as liver spots or age pigment was one of the first things found to be caused by the use of fish oil and other unsaturated fats. (17)

Finally, fat, fat, fat. Ready for this one? Guess what the agriculture business found out. When they feed their animals unsaturated fat from corn, soy, etc, their animals gain weight. When they tried using saturated fat—they lost weight (more on this in the next edition).

When it comes to people, same thing. Why? Unsaturated fat from fish or seeds has a negative effect on the thyroid. It lowers thyroid function and depresses your metabolic rate.

How About a Quick Summary

We can sum this up quickly. Vegetable and seed oils create two huge problems. One having to do mostly with inflammation causing asthma, allergies, arthritis, etc and the other having to do with deadly diseases. Fish oils and other omega 3 oils protect you from the first but do even more damage in the second. The damage is to your heart, skin, thyroid, contributes to cancers, depresses your immune system, makes you fat, creates nerve damage, creates brain swelling,.... And the confusion has been because there are good studies—it does protect against the damage caused by omega 6.

Let me ask you a question. Periodically, during the day, you smack yourself in the head with a hammer. You put on a helmet which totally protects you. The only problem is that the helmet is so tight that ultimately it will cause brain damage. What do you do? Continue to wear the helmet or stop hitting yourself with the hammer.

Continue to use fish oil to protect yourself, or stop eating omega 6 oils?

If the choice isn't clear, I am afraid you have already had too much bad oil and it has depressed your reasoning capability (which it can)