Unhealthy Vegetable Oils?

Does Food Industry Ignore Science Regarding Polyunsaturated Oils? Implications for Cancer, Heart Disease

By CJ Puotinen

SATURATED FATS CAUSE HEART DISEASE. Unsaturated fats, especially polyunsaturated fats, balance hormones, strengthen the immune system, and prevent cancer, heart disease, diabetes, obesity, arthritis, and all types of inflammation. Some polyunsaturated fatty acids are so important to health that they are called essential fatty acids, or EFAs — you literally can't be healthy without them. Polyunsaturated vegetable oils are the safest fats for cooking, especially deep-fat frying, and they're the key ingredients in healthful salad dressings. Canola oil, flax seed oil, soy oil, safflower oil, sunflower oil, and other polyunsaturated vegetable oils are today's true health foods.

Right?

"Wrong on all counts," says Ray Peat, Ph.D., a physiologist who has studied hormones and dietary fats since 1968. According to Peat, every one of the above statements is incorrect. In fact, he says, the polyunsaturated fatty acids or PUFAs in vegetable seed oils are the bane of human health — they actually cause cancer, diabetes, obesity, aging, thrombosis, arthritis, and immunodeficiencies. Their only appropriate use, he says, is as ingredients in paints and varnishes.

Peat is not alone, for a growing number of reputable researchers, medical doctors, nutritionists, and health care practitioners share his views. Their discoveries, they say, may save your life.

What's wrong with vegetable oils? The main problem is that polyunsaturated oils contain long-chain fatty acids, which are extremely fragile and unstable. "The unsaturated oils in some cooked foods become rancid in just a few hours even when refrigerated," says Peat, "and that's responsible for the stale taste of leftover foods. Eating slightly stale food with polyunsaturated oils isn't more harmful than eating the same oils when fresh, since the oils will oxidize at a much higher rate once they are in the body. As soon as a polyunsaturated vegetable oil enters the body, it is exposed to temperatures high enough to cause its toxic decomposition, especially when combined with a continuous supply of oxygen and catalysts such as iron."

Even if you stop eating them, polyunsaturated fatty acids remain stored in tissue, only to be released during times of stress or fasting—including the middle of the night, when one is asleep.

Although PUFAs damage every part of the body, the endocrine system, especially the thyroid, is particularly vulnerable. A slow metabolism, low energy, and sluggish thyroid often accompany the consumption of vegetable oils.

Cattle ranchers discovered the difference between saturated and unsaturated fats in the 1940s, when they fed their livestock inexpensive coconut oil (a saturated fat) in order to fatten them for market. But the cattle didn't gain weight. Instead, coconut oil made them lean, active, and hungry. Next, ranchers tested a thyroid-suppressing drug. As expected, the livestock gained weight on less food, but because the drug was strongly carcinogenic, it was discontinued. By the late 1940s, ranchers discovered that soybeans and corn caused the same anti-thyroid effect as the thyroid-suppressing drug, allowing animals to gain more weight on less food. Since then, corn and soy have been the staples of feedlot cattle.

A later experiment fed animals pure unsaturated vegetable oil, pure saturated coconut oil, and various mixtures of the two. The animals' obesity increased in proportion to the ratio of unsaturated fat in their diet, independent of the total amount of fat or calories they consumed. Animals that ate even small amounts of unsaturated oil were fat, and those that ate large amounts of coconut oil were thin.

By 1950, unsaturated fats were clearly shown to suppress the metabolic rate, apparently by creating hypothyroidism. In following years, scientists looked for the mechanism that caused this effect and found that unsaturated fats damage mitochondria through oxidation and enzyme suppression. The more unsaturated a vegetable oil is, the more specifically it suppresses tissue response to thyroid hormones. Unsaturated fats are derived from the seeds of plants, and seeds contain toxins and enzyme suppressors that block protein digestive enzymes in the stomachs of mammals.

These chemicals evolved to protect seeds from predators and prevent germination until conditions are optimal for sprouting. It's probably no coincidence that millions of people who eat thyroid-damaging toxins and enzyme suppressors have an epidemic of obesity, diabetes, heart disease, cancer, immune system disorders, arthritis, and other chronic diseases.

But wait a minute. If polyunsaturated fats are bad for us, why does everyone believe that coconut oil and other saturated fats are harmful to health and polyunsaturated fats are beneficial? How did that happen?

The answer is a combination of bad science and successful lobbying, explains Bruce Fife, C.N., N.D., author of *The Coconut Oil Miracle* and other books. In 1986, he explains, the American Soy Association (ASA) sent a "Fat Fighter Kit" to 400,000 American soybean farmers, encouraging them to write to government officials, food companies, and newspapers protesting the encroachment of "highly saturated tropical fats like palm and coconut oils" in America's food supply, while their wives were encouraged to educate the public about the health benefits of soy oil.

Soon organizations like the Center for Science in the Public Interest embraced the pro-soy, anti-tropical oil campaign, and food manufacturers bowed to public pressure, replacing coconut oil with soy oil in their products.

"When the attack on coconut oil began," says Fife, "those medical and research professionals who were familiar with it wondered why. They knew coconut oil did not contribute to heart disease and that it provided many health advantages. Some even stepped forward to set the record straight. But by this time public sentiment had firmly sided with the ASA, and people refused to listen."

Senate hearings on the health implications of tropical oils brought testimony from Harvard Medical School researcher George Blackburn, Ph.D., University of Maryland research associate Mary G. Enig, Ph.D., and U.S. Surgeon General C. Everett Koop, M.D., all of whom defended coconut oil. They pointed out that coconut oil has been a mainstay in the diets of millions of people for thousands of years, and those who still follow their traditional diet, such as Pacific Islanders, enjoy long, healthy lives with none of the heart disease, cancer, diabetes, and other illnesses that plague America. The media paid little attention and instead promoted the anti-saturated-fat hysteria with headlines ("The Oil from Hell!") that sold newspapers. In the end, fiction triumphed over fact, and restaurant chains like McDonald's, Wendy's, and Burger King replaced the saturated fats they had been using with more "healthful" vegetable oils. The switch, according to FDA tests, increased or even doubled the fat content of fried foods.

Worse, the vegetable oils that replaced America's saturated fats were not merely polyunsaturated, they were refined, hydrogenated, and full of trans fatty acids. Trans fatty acids or trans fats are formed when vegetable oils are hydrogenated or hardened to make margarine or shortening. Trans fats are now recognized as a leading cause of heart disease, cancer, diabetes, and other chronic or fatal illnesses. A restaurant meal that in 1982 contained only 2.4 grams of trans fats contains 19.2 grams today. To eat a food that contains 30 to 50 percent trans fats, reach for french fries, fried chicken, doughnuts, cookies, pastries, or crackers. Any processed food that contains hydrogenated or partially hydrogenated vegetable oil contains trans fats, and any home-cooked food containing hydrogenated fats does as well.

Meanwhile, canola oil, flax seed oil, soy oil, corn oil, and other polyunsaturated fats are touted as health foods.

"This is a serious mistake," says Peat. "All of these oils, even if they're organic, cold-pressed, unprocessed, bottled in glass, and stored away from heat and light, are damaging. These oils have no shelf life at all, they go rancid within days unless refrigerated, and when they're warmed to body temperature, they disintegrate even faster. Once ingested, they bind with cells and interfere with every chemical reaction in the body. The results are hormone imbalances, inflammation, and all kinds of illness."

Of the popular vegetable oils, the safest is probably olive oil. However, Peat cautions, olive oil's moderate content of polyunsaturated fats (about 8% to 12%), which is several times higher than that of coconut oil (usually 1% to 2%), suggests that olive oil should not be used quite as generously as coconut oil.

But what about EFAs? Aren't some polyunsaturated fatty acids essential?

During the last 30 years, Peat has asked prominent oil researchers for evidence that there is such a thing as an "essential fatty acid." One professor cited a single publication about a single patient who recovered from an illness

after taking unsaturated fat. “If he had known of any better evidence, wouldn’t he have mentioned it?” asks Peat. “The others, if they answered at all, cited ‘Burr and Burr, 1929,’ a study that tested rats. The surprising thing about that answer is that these people would consider any research from 1929 to be definitive. That’s like quoting the 1929 opinion of a physicist regarding the procedure for making a hydrogen bomb. What was known about nutrition in 1929? Most of the B vitamins weren’t even suspected. Burr had no way of understanding what deficiencies or toxicities were present in his experimental diet.”

Two years before Burr’s experiment, says Peat, German researchers found that a fat-free diet prevented almost all spontaneous cancers in rats. Later work showed that polyunsaturated fats both initiate and promote cancer. “With that knowledge,” he says, “the people who kept claiming that linoleic, linolenic, and maybe arachidonic acid are essential fatty acids should have devoted some effort to finding out how much of that ‘essential nutrient’ was enough, so that people could minimize their consumption of the carcinogenic stuff.”

By the end of World War II, the seed oil industry was in crisis. The traditional use of seed oils such as flax seed oil in paints and plastics was being displaced by new compounds made from petroleum. “The industry needed new markets,” says Peat, “and it discovered ways to convince the public that seed oils were better than animal fats. They called their seed oils ‘heart-protective,’ even though human studies soon showed the same results that the animal studies had, namely, that they were toxic to the heart and increased the incidence of cancer.”

Nevertheless, some researchers embraced the “lipid hypothesis” of heart disease, which argued that cholesterol in the blood causes atherosclerosis and that polyunsaturated fats reduce the amount of cholesterol in the blood. This theory allowed the seed oil industry and its academic supporters to promote polyunsaturated vegetable oils as having drug-like therapeutic properties. “The idea of treating seed oils as drug-like substances, to be taken in large amounts, appealed to the food oil industry,” says Peat.

Despite its widespread acceptance, the lipid hypothesis has never been proven. Oil researcher Mary Enig, Ph.D., and Sally Fallon, founder and director of the Weston A. Price Foundation, point out in their article “Secrets of the Edible Oil Industry” that the lipid theory was first proposed by David Kritchevsky, a Russian researcher, who in 1954 published a paper describing the effects of feeding cholesterol to rabbits.

“By showing that polyunsaturated oils from vegetable sources lowered serum cholesterol at least temporarily in humans,” says Enig, “Kritchevsky appeared to show that the findings from the animal trials were relevant to the coronary heart disease problem, that the lipid hypothesis was a valid explanation for the new epidemic of heart disease, and that by reducing animal products in their diets, Americans could avoid heart disease.”

Soon the United States was on an anti-cholesterol campaign.

In 1956, an American Heart Association (AHA) fund-raiser was shown on all three major TV networks. Panelists presented the lipid hypothesis as the cause of America’s heart disease epidemic and recommended the Prudent Diet, in which corn oil, margarine, and chicken replaced butter, lard, beef, and eggs.

But the panel was not unanimous. Dudley White, M.D., disagreed with his AHA colleagues by noting that heart disease in the form of myocardial infarction (MI) was non-existent in 1900, when egg consumption was three times what it was in 1956 and when corn oil was unavailable. When pressed to support the Prudent Diet, White replied, “See here, I began my practice as a cardiologist in 1921, and I never saw an MI patient until 1928. Back in the MI-free days before 1920, the fats were butter and lard, and I think we would all benefit from the kind of diet we had at a time when no one had ever heard the words ‘corn oil.’”

His observations fell on deaf ears, and ads in the *Journal of the American Medical Association* described Wesson Oil as a “cholesterol depressant.” Mazola advertisements claimed that “science finds corn oil important to your health,” and medical journal ads recommended Fleishmann’s unsalted margarine for patients with high blood pressure. Dr. Frederick Stare, head of Harvard University’s Nutrition Department, wrote a syndicated column in which he encouraged the consumption of up to a cup of corn oil per day.

Meanwhile, experimenters found that feeding a diet that totally lacked the “essential” fatty acids produced animals with remarkable properties. “They consumed oxygen and calories at a very high rate,” says Peat, “their mitochondria

were unusually tough and stable, their tissues could be transplanted into other animals without provoking immunological rejection, and they were very hard to kill by trauma and a wide variety of toxins that easily provoked lethal shock in animals on the usual diet. As German researchers had seen in 1927, they had a low susceptibility to cancer, and new studies showed that they weren't susceptible to various fibrotic conditions, including alcoholic liver cirrhosis."

Enig points out that other researchers conducted population studies that showed that the animal model used by Kritchevsky, especially one that used vegetarian animals, was not a valid approach to the problem of heart disease in human omnivores. She cites studies conducted in the 1950s showing that the presence of arterial plaque, which is considered a symptom of heart disease, is a natural process that has nothing to do with diet. American soldiers killed during the Korean War had similar amounts and severity of plaques (75 percent) as Japanese natives whose diet was lower in animal products (65 percent), and the largely vegetarian Bantu in South Africa had just as much occlusions or plaque build-up in their arteries as other races in South Africa who ate more meat.

In 1957, Dr. Norman Jolliffe, director of the Nutrition Bureau of the New York Health Department, launched an Anti-Coronary Club for businessmen age 40 to 59. All were placed on the previously mentioned Prudent Diet, and results were published in the *Journal of the American Medical Association* in 1966. Those on the Prudent Diet of corn oil, margarine, fish, chicken, and cold cereal had an average serum cholesterol level 30 points lower than the meat-and-potatoes control group. But the more important statistics were the heart disease deaths of eight Prudent Diet followers, while none of those who ate meat three times a day died. Jolliffe himself died in 1961 from a vascular thrombosis, although his obituaries listed the cause of death as "complications from diabetes."

Larger follow-up studies produced the same results, and an ambitious million-man Diet-Heart Study was abandoned "for reasons of cost" when its chairman died of a heart attack.

In the 1960s, interest in organ transplantation led to the discovery that polyunsaturated fats prolong graft survival by suppressing the immune system. "Immunosuppression was considered to have a role in the carcinogenicity of the 'essential' fatty acids," says Peat. "At around the same time, there were studies showing that unsaturated fats retarded brain development and produced obesity. In addition, the age-related glycation products that are usually blamed on sugar are largely the result of peroxidation of the polyunsaturated fatty acids.

"Through the 1970s, information about the harmful effects of polyunsaturated fatty acids was slowly being assimilated," he continues, "and by 1980, it looked as though responsible researchers would see the promotion of cancer, heart disease, mitochondrial damage, hypothyroidism, and immunosuppression caused by polyunsaturated fats as their most important feature, and they would see that there had never been a basis for believing that these were essential fats. But then, without acknowledging that there had ever been a problem with the doctrine of essentiality, fat researchers just started changing the subject, shifting public discourse to safer, more profitable topics."

As a result, the old, discredited theories about polyunsaturated fats are alive and well, and so are the inaccurate health claims that replaced them.

Most of us are so used to hearing that saturated fats harm health while polyunsaturated fats improve it that the recommendations of experts like Mary Enig, Ray Peat, and Bruce Fife require mental adjustments.

Get reacquainted with pasture-fed butter, lard, and tallow products, and other traditional saturated fats like coconut oil. Throw away the canola, corn, and soy oil. Stay away from anything that contains polyunsaturated fats. Kiss tofu goodbye, and forget soymilk, soy yogurt, soy cheese, soy protein, and soy lecithin. For good measure, says Peat, stay away from commercially raised chicken.

"Animals that eat polyunsaturated fats don't produce saturated fat," he explains. "When you eat their eggs or meat, you're eating polyunsaturated fat, with all of the adverse effects of soy and corn oil. Because polyunsaturated fats are perceived as healthful, the meat, milk, and egg industries are working on ways to promote these products—which are incredibly harmful—as desirable."

The beef industry is doing so, he says, by treating soy oil so that it won't be broken down in the cattle's rumen. "I think that's a factor in causing scrapie and mad cow disease," he says, "since it was already established that the equivalent

disease in chickens, called crazy chick syndrome, is caused by too much polyunsaturated fat in the diet. Chickens don't have a rumen, so they are much more susceptible to these oils than cows and sheep."

Spend an afternoon reading Peat's research at his website where you'll also find two articles with extensive reference lists: "Oils in Context" and "Unsaturated Vegetable Oils: Toxic." Also see Enig's reports at the Weston A. Price Foundation website and her book *Know Your Fats: The Complete Primer for Understanding the Nutrition of Fats, Oils, and Cholesterol* (Bethesda Press, 2000); as well as Fife's books, *The Healing Miracles of Coconut Oil* (Avery/Penguin, 2004) and *Eat Fat, Look Thin: A Safe and Natural Way to Lose Weight Permanently* (Piccadilly Books, 2002), and his reports at the Coconut Research Center website. You too may join a 21st-century diet revolution—one that reserves polyunsaturated vegetable oils for use in paint and varnish while filling the kitchen with healthful saturated fats such as like virgin organic coconut oil, butter, eggs, and meat from pasture-fed animals.

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