

Study Confirms – Trans Fats Policy Killed Millions

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STORY AT-A-GLANCE

- › For decades, saturated fats and cholesterol were wrongly vilified as the central culprit of heart disease and stroke, leading manufacturers to substitute trans fats in food products
- › When New York City severely limited the amount of trans fats restaurants could use in food preparation, it opened the door for researchers to measure heart attack rates, finding the numbers dropped dramatically
- › Trans fats are found in a significant number of processed foods, including those labeled “zero trans fat;” read labels for partially hydrogenated oils, including cottonseed, soybean, vegetable, palm and canola oils

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For the past six decades, saturated fats and [cholesterol](#) have been wrongly vilified as the central culprit of heart disease, stroke and peripheral vascular disease. However, research has demonstrated that it's actually trans fats and processed vegetable oils found in many processed foods that are the real enemy.

In the decades saturated fats were demonized, the food industry responded by replacing saturated fats with more shelf-stable trans fats and a new market of low-fat (high-sugar) foods was born.

Americans' health has plummeted ever since, and millions have been prematurely killed by this mistake. Making matters worse, [genetically engineered soy oil](#), which is a major

source of trans fat, can oxidize inside your body, thereby causing damage to both your heart and your brain.

One of the first articles published exonerating **saturated fats** was in 1957 by the late Dr. Fred Kummerow,¹ who spent eight decades absorbed in the science of lipids and heart disease. In 2013, Kummerow sued the U.S. Food and Drug Administration (FDA) for not withdrawing trans fats from the market.² It was Kummerow's lifetime work that revealed the dangers of trans fat and oxidized cholesterol and the relationship to heart disease.

Not surprisingly, trans fat is also linked to dementia as the arterial changes that occur in the heart muscle also occur in the brain, triggering neurological damage. Research has demonstrated the dangers to health and a great financial burden that eating a diet with trans fat has placed on the American public.

The Rise and Fall of Trans Fats

In 1912, Paul Sabatier won a Nobel Prize in chemistry for discovering the hydrogenation method that led to the production of partially hydrogenated oils, or trans fat.³ Proctor and Gamble first introduced Crisco in 1911 to the public as an economical substitute for beef lard and butter.

Unfortunately, this cost billions of dollars in health care and hundreds of thousands of premature deaths over the past eight decades. During World War II butter was rationed to control supply while manufacturing plants were used to support the war, increasing the popularity of margarine containing trans fat. In 1957, the U.S. government encouraged people to limit their saturated fat intake, propelling the sales of margarine.⁴

The sale of partially hydrogenated oils snowballed in the 1980s when opponents of saturated fat campaigned against beef fat and tropical oils for frying and at fast food restaurants. Several studies in the early 1990s received media attention, demonstrating a link between an increased intake of trans fat and heart disease. By 1993 advocacy groups were calling for fast food chains to eliminate trans fat from cooking oil.⁵

At this time Americans were consuming 4% to 7% of calories from trans fat.⁶ In 2004 Denmark made it illegal for any food to contain more than 2% trans fat.⁷ Policies in other countries **limiting trans fat** proved effective according to the World Health Organization, which now calls for a total elimination of trans fat from global food supplies.⁸

In 2007, New York City became the first city to ban the use of partially hydrogenated oils in foods and spreads in restaurants. A five-year follow up demonstrated the average content of customer meals dropped in total calories from trans fat from 3% to 0.5%.⁹

What Are Trans Fats?

Partially hydrogenated oils can tolerate repeated heating without breaking down, can turn a liquid oil into a solid and is less expensive than animal fat – making the product attractive to food manufacturers.¹⁰ Baked goods and snack foods had a greater shelf life and manufacturers enjoyed higher profit margins. Trans fats are different from an **unsaturated fat** by just one hydrogen molecule on the opposite side of a carbon bond.¹¹

This one positional change is responsible for the difference in characteristics of the fat, and the increased danger to your health. Most trans fat is produced in a manufacturing plant, although some does occur naturally in ruminant animals such as cows, sheep and goats. These trans fats occur when bacteria digest grass in the stomach of the animals. They may make up 2% to 5% of the fat in dairy products and 3% to 9% in beef and lamb.

However, while similar in molecular nature, several review studies demonstrate that this type of naturally occurring trans fat is not dangerous to your health.^{12,13,14} These comprehensive reviews found that while manufactured trans fat demonstrated significant health risk, those from ruminant animals were much more limited.

A well-known ruminant trans fat is conjugated linoleic acid (CLA), which is believed to be highly beneficial and is used as a supplement to improve glucose tolerance and lipid metabolism.^{15,16} CLA is found in high amounts in dairy products from grass fed cows and linked to a reduced risk of heart disease.

Residents Enjoy Better Health After New York Places Restrictions

When New York severely limited the amount of trans fat allowed to be served at restaurants, it offered a unique opportunity for researchers to study the effects on residents and compare rates of heart attack and stroke before and after the restriction.¹⁷

Three or more years after the restrictions were imposed on specific counties in New York City, researchers found a 6.2% reduction in heart attacks and stroke in those counties compared to areas of the city where the restrictions on trans fat were not imposed.

Considering trans fat has proliferated in the American diet since the late 1950s – more than 60 years now – the unnecessary death toll attributable to trans fat likely numbers in the millions each year, nationwide. As noted by lead author Dr. Eric Brandt, clinical fellow in cardiovascular medicine at Yale School of Medicine:¹⁸

"It is a pretty substantial decline. Our study highlights the power of public policy to impact the cardiovascular health of a population. Trans fats are deleterious for cardiovascular health, and minimizing or eliminating them from the diet can substantially reduce rates of heart attack and stroke."

Research in Denmark, the first country to act following research demonstrating the **dangerous health effects from trans fat**, had similar results, finding a reduction in cardiovascular disease in the population several years after trans fat was limited in food production.¹⁹ Other research concluded a mere 2% increase in calories from trans fat can double your risk of heart attack,²⁰ which means even minute amounts of trans fat may have a significant effect on your health.

Trans Fat Linked to Neurological Damage, Heart Disease and Diabetes

In fact, just small amounts of manufactured trans fat may have dangerous effects on your heart, **insulin sensitivity** and neurological system. In a unique study, Dr. Gene

Bowman, assistant professor of neurology at Oregon Health and Science University, found a strong correlation between trans fat and cognitive performance.²¹

People with high levels of trans fat in their blood performed significantly worse in cognitive testing and had reduced brain volume. Bowman commented on these results:²²

"It's clear that trans fats are bad – both for your heart and now, we see, for your brain. So I would recommend that people stay away from all trans fats. If you aren't sure whether something has them, just look at the ingredients ... if there's vegetable shortening, partially hydrogenated anything ... just put it down. That's the big message here."

Trans fat also damages your heart muscle and arterial system, and is associated with **coronary heart disease** and sudden death from cardiac causes.²³ In both observational and clinical studies, researchers have found associations between trans fat and cardiovascular disease.²⁴ A large study of over 80,000 women has demonstrated a 40% increased risk of diabetes when the participants ate a diet that was high in trans fats from processed foods, baked goods and junk foods.²⁵

Other studies are not as consistent, either with triggering diabetes or with insulin sensitivity. However, while the research on trans fat and glucose modulation is inconclusive, there is an association between eating foods with trans fat and weight gain, a significant risk factor for diabetes and heart disease.

In one animal study, researchers demonstrated an increase in abdominal obesity²⁶ and another an increase in weight, even when caloric intake was the same between the group eating a diet rich in trans fat and those eating a diet without trans fat.²⁷

What About Vegetable Oil?

In response to research and public opinion, many restaurants have turned from partially hydrogenated oils to 100% vegetable oil. However, while these oils do not have trans fats, when heated they may degrade to even more dangerous toxic oxidation products, including cyclic aldehydes.

Vegetable oil is high in omega-6 fats, creating an imbalance in your omega-3 to omega-6 ratio, which can trigger or contribute to cardiovascular problems, diabetes, arthritis, cognitive decline and specific cancers.²⁸ At the root of all the harmful biochemical reactions enacted by vegetable oils is linoleic acid.

Linoleic acid (LA) is the primary omega-6 fat found in vegetable oils and accounts for about 80% of their total composition. I believe it is the most pernicious toxin in the modern diet – I encourage you to read my article, "[Linoleic Acid – The Most Destructive Ingredient in Your Diet](#)," to learn more about this topic.

What's more, many of the [vegetable oils](#) produced today – peanut, corn and soy – are products of genetic engineering and are a significant source of glyphosate exposure. This is yet another reason for eliminating these oils from your diet.

Vegetable oils cannot be pressed from corn, soy or peanuts, but instead must be chemically extracted, deodorized and altered before they are considered safe for eating. This type of oil is found in most processed foods, from salad dressing and mayonnaise to conventionally prepared nuts and seeds.^{29,30}

While fats are essential for your body to produce hormones and rebuild cells, it is vital your body is able to use the fat you consume. The problem with vegetable oils is they are unstable, oxidize easily in the body or during production, and trigger cell mutation and inflammation.

Decode Your Food Labels

It is fairly easy to eat well over 1 gram of trans fat each day, as you'll see in this short video. FDA labeling rules allow manufacturers to list the amount of trans fat as 0% if there is less than 0.5 grams per serving in the product.³¹ While you may think that sounds reasonable, manufacturers are able to navigate this rule by changing portion sizes.

By reducing the portion size, they reduce the amount of trans fat found in each serving, thus fulfilling FDA rules for the "zero trans fat" label. In fact, they may even advertise the

product does not have trans fat on the front label.³² So, make it a habit to read the label on any processed foods you purchase. If the serving size is ridiculously small, this is a tipoff you may be getting trans fat after all.

Partially hydrogenated oils are the primary source of trans fat in processed food and are indicated as partially hydrogenated oil on the ingredient list. These oils can be partially hydrogenated palm, cottonseed, soybean, vegetable and canola oils. Unfortunately, they hide in many processed foods you may have at home.³³

Flaky crusts on your pie are often made with vegetable shortening loaded with partially hydrogenated oil. Artificial creamers, frozen dairy desserts and cake icing are just a couple of places where partially hydrogenated oils hide, providing the "creaminess" in thoroughly processed foods.

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