



Dietary Fat

The biggest change in dietary policy in history came from the publication of the US government's 1977 Dietary Guidelines for Americans. Before that, your mother told you what to eat. Now, for the first time, the government would take over that job. And its primary recommendation was to eat more carbs and less fat. It specifically recommended that Americans increase the carbohydrates, which were mostly refined in that time, up to 55-60% of their calories and decrease the fat in their diet from 40% to 30%.

At that time, some scientists believed eating a low-fat diet would reduce the chance of heart disease, but new research suggests that this is simply not true. The fat in the diet, saturated or otherwise does not clog up our arteries. No previous diet in history had limited dietary fats. Instead, the fat was considered the best part, as evidenced by sayings such as 'The cream of the crop', or 'The fat of the land'. Despite 50 years of research, no good scientific evidence exists that eating a low fat diet reduces heart disease. Many fats and oils have since been recognized as very healthy, such as avocados, wild salmon and olive oil. Indeed, the 2015-2020 Dietary Guidelines for Americans no longer recommends limiting total dietary fat. But the advice to eat less fat and more carbs had the unintended consequence of an obesity and type 2 diabetes epidemic. So why did we believe dietary fat caused heart disease in the first place? This is really the origins of the obesity epidemic.

In the 1950s, Americans were unexpectedly suffering from more heart attacks, more than tripling in number since 1900. But scientists did not know why. Looking in hindsight, it is pretty obvious.

Cigarette smoking had increased tremendously during that time, being seen as a harmless habit, because the link to heart disease, lung disease and cancer was not yet established. Cigarette companies spent millions of dollars to hide this nasty and inconvenient truth and this likely explains the epidemic of heart disease. When the Surgeon General started warning of the dangers of smoking in the late 1960s, primarily for cancer, heart disease rates also started their decline. You can see that the trends for heart disease and cigarette smoking closely resemble each other both on the way up and on the way down.

Because Big Tobacco had carefully hidden dangers of smoking, scientists searched wildly for why heart attacks were becoming so common. Dietary fat, particularly saturated fat became the

scapegoat, even though this never actually made any sense. Americans were eating roughly the same diet in 1950 as they were in 1900 with about 50 grams of saturated fat per day. If saturated fat were primarily responsible for heart disease, then how is it possible for heart disease to triple while saturated fat intake stayed exactly the same?

It was a seductive theory, though. In the public imagination it was easy to paint this picture that the fats we ate were 'clogging' up our arteries just as pipes get clogged. With no other good theories, this idea gained prominence despite the lack of rigorous scientific evidence. Instead, recent data shows the exact opposite. The largest nutrition study done to date, 2017's PURE study showed that people who ate the least saturated fat had the most heart disease and death.

As dietary fat became public enemy #1, and people were advised to eat more carbohydrates, there was a problem. Starches and sugars had long been believed to cause weight gain. But refined grains like bread could not be both good for you, because it is low in fat, and bad for you, because it causes obesity at the same time. So dietary fat, eaten for millennia without causing obesity, was also deemed to cause weight gain, too. Fat is more calorically dense, so the 'calories in, calories out' theory was adopted to justify why dietary fat caused both heart disease and obesity.

But it was not the total calories that causes weight gain, but instead what our body does with those calories, determined by the balance of hormones, particularly insulin. Dietary fat has little insulin effect, and therefore is not particularly prone to causing weight gain compared to carbohydrates, which have a much larger insulin effect. When Americans were told to eat more carbs and less fat, obesity rates exploded. The subsequent advice to eat fewer calories by eating less fat failed virtually 99% of the time.

Saturated Fat

Dietary fats are classified either as saturated or unsaturated, based on their chemical structure, but this does not tell us whether or not the fat is healthy, as we previously imagined. Saturated fat does not cause heart disease and can be either healthy or unhealthy. Unsaturated fats can also be healthy or unhealthy. The main determinant of whether a fat is healthy or unhealthy is whether or not it is a natural fat or a processed, refined fat.

Many animal fats, such as the fat from meat and dairy fats like cream and butter are good sources of saturated fat. Coconut oil is an example of a vegetable source of saturated fat. People have been eating these natural saturated fats for a long time without suffering from heart disease or obesity.

Trans fats, on the other hand, are artificially saturated fats. Starting with a processed unsaturated fat such as vegetable oil and hydrogen is chemically added to saturate the fat, although it does not become fully saturated. On ingredient lists, you may see the term 'partially hydrogenated' vegetable oil. That's a trans fat and was a key ingredient of margarine. For decades, we were told to avoid butter and eat the trans fat laden margarines, which were supposedly more 'heart healthy'. Ironically, this had almost the exact opposite effect. Trans fats are now known to cause heart disease and have been banned in many countries around the world.

Unsaturated Fats

Some examples of naturally occurring unsaturated fats are:

- Nuts, such as brazil nuts, pecans, walnuts, almonds, pine nuts and macadamia nuts
- Seeds, such as pumpkin and sunflower
- Avocado and cold pressed avocado oil
- Olives and extra virgin olive oil
- Fish, such as salmon, mackerel, tuna and sardines
- Shellfish
- Seafood

The omega 3 oils found in fatty fish are natural polyunsaturated fats. Extra-virgin olive oil is an example of an unprocessed oil, because there is no chemical treatment that is needed to extract the oil. The olives are simply squished and the oil is separated. Lower grades of olive oil, sometimes called 'pure' or 100% olive oil use further chemical processing to extract the oil and should be avoided.

There are also many processed fats that are unsaturated, such as:

- Seed oils, such as canola, sunflower, grapeseed and cottonseed oils
- Vegetable oils, such as corn oil
- Soybean oil
- Peanut oil
- Margarine

While they are often sold as 'natural', really they are not. For example, corn is not an oily vegetable. So, in order to get the oil from the corn, literally tons of corn must be processed. This involves grinding the kernels and spraying them with a petroleum-based solvent like hexane before heating, refining, degumming, bleaching, and deodorizing.

Because this is a highly processed oil, our bodies are not adapted to metabolize them, as opposed to the natural fats that humans have eaten for thousands of years. The industrial seed oils are very high in omega-6 fats, which can be highly inflammatory.

You should also avoid processed dairy and cheese, as well as lunch meats. Deep fried foods should be avoided because they are usually fried at high temperatures in vegetable oils. The polyunsaturated fats are chemically unstable and easily go rancid.

While there is no reason to avoid natural fats, there is also no reason to add extra fat to a meal simply to add fat. If you like to eat butter to your steak to add flavor, that's fine. But you don't need to add it just to add it. It doesn't help you lose weight.