



## HOW BAD IS FAT FOR YOUR HEART, REALLY?

Like all supposed villains, fat is complicated. And perhaps not really such a bad guy after all. Here's what you need to know.

BY HOLLY PEVZNER

**S**ince the 1970s, fat has been the bad guy of heart health. It's just so easy to look at that congealed mess of bacon fat in the breakfast pan and picture it slowly slogging through your arteries, clogging everything up along the way. It totally makes sense. It makes so much sense that back in the 1980s, the U.S. surgeon general demanded that reducing our collective fat consumption should be the nation's "primary dietary priority." Then in the 1990s, the now-defunct food pyramid mirrored that warning and instructed us all to limit our fat intake across the board. The reason: excess fat was thought to be the key dietary factor leading to coronary heart disease, a belief that ricocheted through the snack aisle, the dairy aisle and every aisle in between, creating a bastion of low-fat and fat-free everything. So after decades of shunning

fat, you'd think that our heart health would be better than ever by now. The reality: heart disease is still holding on strong as the leading cause of death for both men and women in the United States, claiming the lives of about 600,000 people each year. But why?

Fat never totally disappeared. But back in the low- to no-fat heyday of the '80s and '90s, it was painstakingly extracted from packaged cookies, crackers, yogurts and so many other nonfresh foods that peppered the grocery store. It turned out, however, that sugar and refined carbohydrates were often the go-to fat substitutes. "Food companies had to do something to make all of these fat-free and low-fat foods taste good, so they added sugar. A lot of sugar," notes Monique Tello, M.D., a clinical instructor at Harvard Medical School and the author of *Healthy Habits for Your Heart*.



FOODS MADE UP OF HEART-HEALTHY FATS, SUCH AS CANOLA OIL AND SUNFLOWER OIL, ARE LIQUID AT ROOM TEMPERATURE.



“And, lo and behold, people who ate these low-fat but high-sugar foods still got heart disease.” The same held true for those who went the refined-carb route. In fact, these fat-for-sugar and fat-for-carbs switches had a negligible effect on the ratio of bad-to-good cholesterol and in consequence had no impact on one’s risk of coronary heart disease, according to the American Heart Association. Does that mean that fat is now totally fine for the heart? Not exactly.

#### Which Fat Is Which?

Fat does way more than potentially clog your arteries. Fat is an energy source. It cranks out hormones that help the body function. “Fat also supports the cells of the body, as well as the sheaths surrounding nerves,” says Tello. “And they make it so we are able to absorb certain nutrients, especially the fat-soluble vitamins A, D, E and K.” Not all fats are the same, however. We’ve got saturated and trans fats (the traditional bad guys) and two types of “good” unsaturated fats: monounsaturated

and polyunsaturated. They all have a very similar chemical structure, but what makes some fats possibly bad for your heart and others good comes down to their molecules, or fatty acids, and how they’re linked.

Saturated fatty acids are packed together super tightly. As such, they’re solid at room temperature. When these rigidly linked fats enter the bloodstream, they can increase levels of low-density lipoprotein (LDL or “bad”) cholesterol. Saturated fat is found in red meat, whole-milk dairy foods, coconut oil and tons and tons of processed and prepared snacks and baked goodies. And it was considered the top bad fat for a long time, until trans fat took the lead.

Trans fats are also full of tight bonds, but unlike saturated fats, most trans fats are not found in nature. Instead, they’re made when food manufacturers alter the chemical structure of unsaturated fats, creating a man-made fat that’s more solid at room temperature and lasts a long time on store shelves. Trans fats increase bad cholesterol and decrease

high-density lipoprotein (HDL or “good”) cholesterol and were once ever-present in anything fried or battered, and in packaged desserts, as well as in stick margarine and shortening.

Then there are the unsaturated “good” fats (monounsaturated and polyunsaturated) that are made of looser bonds that bend, making them liquid at room temperature. Unsaturated fats don’t up “bad” cholesterol. Instead, they work to increase “good” cholesterol, which helps usher “bad” cholesterol to the liver, where it can be broken down and removed from the body. The good stuff is found in such foods as fish, nuts, soybeans, avocados, certain plant oils, seeds and more.

#### The Worst Fat for Your Heart

Today it’s universally agreed that all man-made trans fats are terrible for your heart and overall health. You can find these fats in the likes of fried foods, baked goods, crackers, potato chips, stick margarine and more. “It’s been repeatedly shown that trans fats raise LDL and triglyceride levels, which are the bad cholesterols. They lower HDL levels, which is the good cholesterol. Plus, trans fats promote plaque formation along the blood-vessel walls and increase inflammation,” says cardiologist Nisha Jhalani, M.D., director of inpatient clinical services for the Center for Interventional Vascular Therapy at New York Presbyterian–Columbia University Irving Medical Center. (Inflammation has been shown to damage blood vessels and lead to heart disease and stroke.) It’s estimated that consuming trans fats may be responsible for up to 100,000 premature coronary deaths each year. Moreover, removing trans fats from our diets will likely prevent 1 in 5 heart attacks and related deaths, according to research in the *New England Journal of Medicine*.

Good thing that sidestepping trans fats is far easier today than even just a few years ago. In 2015, the Food and Drug Administration ruled that artificial trans fats were unsafe, and three years later, they were finally (almost) banned in the United States. The positive impact on heart health has already started to kick in: a 2017 report in *JAMA Cardiology* noted that an earlier ban on trans fat just in New York State restaurants yielded a drop in heart attacks and strokes. Specifically, researchers found

6.2% fewer hospital admissions for cardiovascular events, including almost 8% fewer admissions for heart attacks.

“Food manufacturers can still list 0 grams of trans fat on food labels as long as the product has less than 0.5 gram per serving,” says Kathy McManus, R.D., L.D.N., C.D.E., the director of nutrition at Brigham and Women’s Hospital in Boston. (To know if your food has undocumented trans fats, look for partially hydrogenated vegetable oil on the label. If that’s there, so are trans fats.) At the same time, restaurants fry food in vegetable oil, which often contains trans fats. “Not only can high cooking temperatures increase the amount of trans fat present, so can reusing the fry oil, which happens all of the time at restaurants,” says McManus. In short: trans fats are still out there, but for the most part, they’re pretty much out of the day-to-day food supply, which leaves the other “bad” guy: saturated fat.

“Saturated fat acts directly on the way our body processes cholesterol,” says integrative cardiologist Kimberly Parks, D.O., medical director of Synergy Private Health and an assistant professor of medicine at Harvard Medical School. (Saturated fat, remember, is found in red meat, whole-milk dairy foods, processed foods and more.) “When we eat a meal high in saturated fat, the fat signals our cells to begin manufacturing LDL, or the ‘bad’ cholesterol.” As it turns out, our total LDL is made of various particle sizes, and the smaller the particles, the more likely that they’ll eventually lead to atherosclerosis, or plaque buildup inside the arteries. “Saturated fat signals the body to make more of these smaller-density particles,” says Parks.

Even with all the above being true, “there’s still mixed evidence over just how harmful saturated fats can be for the heart,” says Jhalani. Of note: a 2014 meta-analysis in the journal *Annals of Internal Medicine* found that there was no evidence to support the idea that saturated fat increases one’s risk of heart disease. A 2016 *PLoS One*

**Fat does way more than potentially clog your arteries. Fat is an energy source. It cranks out hormones that help the body function.**

study suggested that there was a relatively small or neutral association between butter consumption and cardiovascular disease. Then there was a report in the *Annals of Internal Medicine*, this one in 2019, that boldly stated that there was no compelling evidence to show that reducing one's intake of saturated-fat-filled red meat is beneficial to one's health. In fact, according to a review in the journal *Nutrients*, it's now clear that saturated fat's role in spurring coronary heart disease has been "much exaggerated."

Exaggerated? Yes. Good for your heart? No. "It's still absolutely true that too much saturated fat is not good for your health," says McManus. "The problem is, when we focus on just one nutrient, like saturated fat, we wind up missing the whole dietary picture." The truth is that "saturated fats,

**Opting for extra-virgin olive oil instead of butter is an effective approach to tempering the effects of various cardiovascular risk factors.**

when eaten within the recommended less than 6% of one's daily caloric intake, may not necessarily lead to detrimental heart effects," says Jhalani. It all depends on who's doing the eating, what their risk factors are and what else they're dining on. "A young person with no cardiac risk factors, for instance, can eat butter and have red meat on occasion without thinking twice," says Jhalani. But if someone has cardiovascular disease or known risk factors, that's a different story. And even for them, "if they were to go ahead and vastly reduce their saturated-fat intake, but that's it, it wouldn't be enough to keep their heart healthy," says McManus. And that's where the good fats—polyunsaturated (PUFA) and monounsaturated (MUFA) fatty acids—come into play.

**The Fat All-Stars**

"Incorporating healthy fats into your daily diet plan is key to heart health," says McManus. You'll find MUFAs in foods like olive, canola and sesame oils; avocados; peanut butter; and many nuts and seeds. For foods rich in PUFAs, look for items like soybean, corn and sunflower oils; walnuts; sunflower seeds; tofu and soybeans; flax; and salmon.

Both MUFAs and PUFAs help reduce bad cholesterol levels, which can lower risk of heart disease and stroke. And PUFAs are essential fats, meaning they're needed for normal everyday bodily functions, like blood clotting. Plus, PUFAs improve one's overall cholesterol profile and lower triglycerides, which are a type of fat found in blood that, when elevated, likely ups one's risk of heart disease.

And when these fats take the place of saturated fats, well, that's when the heart benefits really start rolling in. For instance, a 2015 report in the *Journal of the American College of Cardiology* noted that substituting saturated fats for MUFAs can yield a 15% reduction in coronary heart disease. At the same time, a 2017 report in the journal *Circulation* noted that lowering saturated fat and replacing it with polyunsaturated vegetable oil reduced cardiovascular disease by about 30%, similar to the reduction achieved by statins. "The effect of exchanging saturated fats for polyunsaturated fats is powerful," says Parks. "PUFAs not only lower bad cholesterol, they increase its turnover, which allows the body to more readily process LDL, or 'good,' cholesterol."

**How to Flip the Fat in Your Diet**

There's no real need to obsess over every bit of fat that you eat. "The research hasn't really supported the idea that there should be a cap on the total amount of fat consumed," says McManus. (And, yes, that goes for keto and Atkins followers too.) While there are guidelines on saturated fat (no more than 6% of daily calories should come from saturated fat, or 20 grams in a 2,000-calorie diet), they're always a bit of a head-scratcher. "Those percentages mean nothing to people!" says McManus. "Instead, I suggest looking at the types of fat you're eating now and reducing those that are higher in unhealthy fats and substitute them for healthy fats."

To start making changes, McManus suggests surveying what you use to cook with. Are you opting for butter or shortening? What about coconut or palm oil? If so, consider replacing these with an unsaturated healthy fat. "Peanut, olive, canola, sunflower oil—they're all heart-healthy choices," says McManus. Moreover, opting for extra-virgin olive oil is considered a simple but effective approach to tempering the harmful

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**WORK TWO SERVINGS OF LOW-FAT OR FULL-FAT DAIRY INTO YOUR DAILY DIET, BUT STICK TO PLAIN VERSIONS INSTEAD OF SUGAR-LOADED FLAVORED VARIETIES.**



effects of various cardiovascular risk factors, such as oxidative stress and inflammation, concluded a 2018 study in the journal *Endocrine, Metabolic & Immune Disorders—Drug Targets*.

Next up: snacks and treats. Trade some of your less-than-healthy snacks for nuts, which are chock-full of unsaturated fat, says McManus. (Aim for ¼ cup a day.) Eating walnuts at least once a week, for instance, is associated with a 19% lower risk of cardiovascular disease and a 21% lower risk of coronary heart disease, noted a 2017 study in the *Journal of the American College of Cardiology*. The same study found that people who ate peanuts, cashews, almonds or other tree nuts two or more times a week had up to 15% lower risk of cardiovascular disease and up to 23% lower risk of coronary heart

disease, compared with those who shunned nuts. (Also great-for-your-heart snacks, swaps and add-ins: olives and avocados.)

Despite what the seemingly pro-meat *Annals of Internal Medicine* study reported, it's important to note that researchers never actually touted eating red meat. And Jhalani, Tello, McManus, Parks and the American Heart Association all agree that, in excess, red meat is harmful and that limiting it is best for heart health. McManus would love it if people would shoot for red meat as a once-a-week thing and start thinking of it as a side dish instead of a main. "But if you are someone who eats red meat every day, I'd begin by aiming for a little less day by day."

One of the best ways to make eating less meat

even more heart-healthy is to replace that burger or steak with fish, particularly ones that are high in polyunsaturated fats containing omega-3 fatty acids—such as salmon, mackerel, tuna and sardines. "Omega-3 fatty acids raise HDL cholesterol. Plus, they act as an anti-inflammatory, which is great for heart health," says Tello. As such, the American Heart Association recommends that folks consume two 3.5-ounce servings a week of nonfried seafood (favoring omega-3-rich options) for cardiovascular benefits, including a reduced risk of cardiac death, coronary heart disease and stroke. And when you aren't eating fish, be sure to enjoy other sources of omega-3s, like walnuts, ground flaxseed and soybeans.

Doing all of this swapping and shifting has

been proven to buoy heart health. But the thing is, "nutrition has lots of complexities and variables," says McManus. "It's not just about cutting something out or adding something in. It's about balance." Too much salt, too much sugar, not enough fiber or fruits or veggies, too much packaged, processed and fried food—it all matters. To wit: a 2017 report in the *Annals of Nutrition & Metabolism* found that consuming a largely plant-based diet that's rich in colorful fruits and veggies, along with healthy unsaturated fats, is associated with a markedly lower risk of heart disease. "It's true," says Jhalani. "An overall healthy diet—plus regular physical exercise—is extremely important in the prevention of heart disease." Don't get so focused on one aspect that you forget about the rest. ●



## 5 REASONS CHEESE IS ACTUALLY GOOD FOR YOUR HEALTH

It's the research we've all been waiting for: five amazing health benefits of cheese, according to science.

BY RACHAEL MOELLER GORMAN

Say what? Cheese might actually be good for you? Old-school thinking is that cheese is unhealthy, in large part because of all its saturated fat. But research in recent years has questioned the link between saturated fat and heart disease. In fact, eating cheese (nibbling, not gorging) is linked with numerous health benefits. Here are five health benefits of cheese.

### 1. CUTS YOUR RISK FOR HEART DISEASE

Some researchers think cheese might explain

the so-called French paradox—that French people have low rates of heart disease despite their affinity for cheese and other foods rich in saturated fat, such as butter and duck. Then there's a 2016 report that analyzed results from 31 prospective cohort studies (the ones that watch people throughout their lives) that compared how much dairy people ate to whether they developed cardiovascular disease. One major finding was that eating nearly 2 ounces of cheese daily (1 ounce equals a 1-inch

cube) was associated with an 18% lower risk of heart disease. Writing in the *British Journal of Nutrition*, the authors proposed that minerals like calcium, potassium and magnesium and vitamins like riboflavin and B<sub>12</sub> may play a role. Another key finding: eating as little as ½ ounce of cheese a day could cut stroke risk by 13%.

### 2. FENDS OFF DIABETES

Eating 1¾ ounces of cheese a day may lower your risk of developing type 2 diabetes by 8%, says an analysis of cohort studies in the *American Journal of Clinical Nutrition*. There's more good news from the same study: people who ate about ¾ cup of yogurt daily had an even lower risk. Another study in *AJCN*, this one out of Sweden, found that women who ate

just under 2 ounces of cheese also lowered their type-2 diabetes risk. The shorter-chain saturated fats in cheese were linked to a lower risk of type 2 diabetes. Also, calcium, which increases insulin secretion and may reduce insulin resistance, may fend off the disease, say researchers. Whey proteins might play a role, too, since they may increase insulin sensitivity.

### 3. HELPS YOU DODGE DEATH

OK, that's extreme. But eating cheese really might help you live longer, according to a 2016 study in the *European Journal of Clinical Nutrition* that followed 960 French men for almost 15 years to see whether the foods they ate had any relationship to when they died. The happy finding? Eating about

2 ounces of cheese a day was associated with a 38% lower likelihood that they died during the study. Perhaps calcium's blood-pressure-lowering effects play a role or maybe it was cheese's ability to curb fat absorption in the gut, write the researchers.

### 4. IMPROVES YOUR CHOLESTEROL

Keeping with heart health, a daily snack of cheese may lower your cholesterol. A 2015 analysis of randomized controlled trials (the gold standard in research) in *Nutrition Reviews* compared the blood cholesterol of people eating a prescribed diet that included butter or cheese. Although both diets had about the same amount of saturated fat and calories, the cheese eaters ended their trials with lower total and LDL cholesterol than their

butter-eating counterparts. Their "good" HDL cholesterol was also lower, though, which is the opposite of what you want. The cholesterol changes could be due to calcium's ability to ferry fat through your gut so you don't absorb it and its associated calories (the amount of calcium is much greater in cheese than in butter). Vitamin K<sub>2</sub>, found in fermented dairy products like cheese, may also play a role.

### 5. MAKES YOU STRONGER

Eating almost a cup of ricotta cheese a day for 12 weeks boosted muscle mass and improved balance in healthy adults over age 60. The researchers of the study, published in 2014 in *Clinical Interventions in Aging*, said that the milk proteins casein and whey may have fueled the improvement. ●