

# The Facts About Fat

[By Anjula Razdan](#) | [November 2016](#)



The low-fat era may be coming to an end — but there’s still a lot you need to know about what’s healthy and what’s not.

Americans have a case of nutritional whiplash when it comes to dietary fat. For decades we’ve been told that reducing our fat intake can prevent weight gain and ward off disease, so we’ve dutifully filled our grocery carts with low-fat, reduced-fat, and fat-free fare. But in recent years the case against dietary fat has begun falling apart.

A growing number of medical experts and organizations are challenging the demonization of dietary fat as the key cause of cardiovascular maladies. And now we know, after the release of a study in *JAMA Internal Medicine* in September 2016, that a sugar-industry trade group paid Harvard scientists to release nutritional studies, starting in 1965 and continuing through the 1970s, that downplayed sugar’s role and instead pointed the finger at saturated fats and cholesterol. In recent years, multiple peer-reviewed studies have suggested that the epidemic of heart disease — as well as other chronic illnesses such as type 2 diabetes and cancer — are more likely the result of diets high in refined carbohydrates and sugar. (For more on the latest thinking on cholesterol and the heart, see [ELmag.com/hearthealth](http://ELmag.com/hearthealth).)

“The low-fat era is finally starting to come to an end,” says Mark Hyman, MD, director of the Cleveland Clinic’s Center for Functional Medicine and author of *Eat Fat, Get Thin: Why the Fat We Eat Is the Key to Sustained Weight Loss and Vibrant Health*. Indeed, after 35 years of advising a low-fat, low-cholesterol diet, the U.S. Dietary Guidelines largely exonerated dietary fat and cholesterol in 2015.

That's good news for those of us who find whole-egg omelets and full-fat yogurts to be more satisfying and filling. And besides, those low- and no-fat foods haven't done our bodies any favors.

We need fat for a wide range of health-promoting metabolic functions, including building cell membranes, producing hormones, absorbing vitamins, protecting our nerves, moderating our glycemic load, and supporting basic brain functions. When we don't get enough fat in our diets, we feel hungry a lot of the time and end up craving unhealthy foods.

“Low-fat diets have had unintended consequences, turning people away from healthy high-fat foods and toward foods rich in added sugars, starches, and refined [grains](#),” notes Dariush Mozaffarian, MD, cardiologist and dean of the Friedman School of Nutrition Science and Policy at Tufts University, in a *JAMA* commentary on the new guidelines. “This has helped fuel the twin epidemics of obesity and diabetes in America.”

Rates of these two diseases have been skyrocketing for years. So, beyond the falsified nutritional studies of the past, why has it taken so long for experts to realize that our low-fat obsession is making us sick?

According to Hyman, many other studies were difficult to interpret because they were poorly designed. “These are studies in which people who are eating fat are eating bad fats, inflammatory fats, and junk foods,” he says. “Of course you would think that fat is bad for you if you're looking at a study like that.”

Additionally, it takes a long time for emerging research to trickle down to the institutions that translate it and set nutritional policy, says Mark Pettus, MD, associate dean of medical education at the University of Massachusetts Medical School and director of medical education, wellness, and population health at Berkshire Health Systems in western Massachusetts.

“We're in the midst of a knowledge revolution right now,” Pettus explains. “In 2016, medical knowledge is doubling every month or two.” The organizations that we look to for nutritional information — whether it's the USDA, American Heart Association, or others — are slow to respond and create new guidelines, he says.

## Fat Smarts

Although good fats are essential to our overall health, many people still feel anxious about embracing them. It was one thing when we had to avoid all fats; now we have to figure out which fats are healthy — and that can be overwhelming.

In particular, people tend to be leery of anything containing saturated fat, without considering its source or context. The saturated fat in grassfed beef, for example, or in coconut oil (which delivers health-supporting medium-chain triglycerides, or MCTs) is very different from saturated fat found in processed meats and packaged foods.

Many progressive health experts believe saturated fats have been unfairly disparaged, mainly because they are often lumped in with processed trans fats, which were deemed “not generally recognized as safe” for human consumption by the FDA in 2015.

“I think most saturated fats are probably much healthier than we thought,” says Pettus, “especially when they are being ingested from quality sources — and especially if people are not eating a lot of refined, poor-quality carbs and [sugar](#).”

Hyman agrees. “Not all saturated fats are bad, but they’ve somehow been grouped together and labeled as harmful. Healthy saturated fats can actually help you burn fat, make your brain work better and faster, make your skin glow, and help optimize your cholesterol profiles.”

He cautions, however, that “quality becomes paramount here. The saturated fat in a fast-food bacon cheeseburger will have an entirely different effect than saturated fat in coconut oil.”

Hyman explains that saturated fat should be consumed as part of a diet low in refined carbohydrates and sugar. He cites a recent study of prediabetics that compared the levels of saturated fats in their blood as they moved through various diets that ranged from lower carb and higher saturated fat to higher carb and lower saturated fat. Only when participants ate a diet high in carbs did researchers see a spike in saturated fats in their blood.

Other research supports the idea that saturated fats have gotten a bad rap. A meta-analysis published in 2010 in the *American Journal of Clinical Nutrition* examined 21 studies and observed that intake of saturated fat was not found to increase the risk of coronary heart disease, stroke, or cardiovascular disease. Another study discovered that when saturated fat is replaced with high carbohydrate intake — particularly refined carbohydrates — conditions associated with insulin resistance and [obesity increase](#).

The takeaway? Look at your saturated-fat intake within the context of your overall diet.

“Anyone who goes from a standard American diet to a diet that reduces sugar, eliminates poor-quality carbohydrates and poorly sourced animal foods, and who moves toward less-processed food — including less-processed fats — will only see an improvement in their health,” says Pettus.

Read on for more expert advice on how to incorporate healthy fats (saturated and unsaturated) into your nutrition repertoire — plus a handy guide to the best fats and oils to keep in your kitchen.

## Get Your Fats Straight

Fats are classified by how many hydrogen atoms are connected to carbon atoms in the fat’s molecular structure. Fats are a combination of saturated, monounsaturated, and polyunsaturated, which is a good thing because we need all types of fat — except trans fat — for optimal health.

**Saturated fats** are solid at room temperature; they are “saturated” with hydrogen atoms — that is, they have the maximum number of hydrogen atoms connected to every carbon atom and, as a result, are highly stable. Examples of primarily saturated fats include butter, ghee, coconut oil, and the fat in red meat.

**Monounsaturated fats** are liquid at room temperature but start to solidify in the refrigerator; they have one unsaturated chemical bond — that is, they’re missing a pair of hydrogen atoms in the middle of the chain. Primarily monounsaturated fats include olive oil, avocado oil, and lard.

**Polyunsaturated fats** are liquid at both room temperature and in the refrigerator and have multiple unsaturated-chemical bonds, making them vulnerable to light, heat, and oxidation. Examples of primarily polyunsaturated fats (which include omega-3 and omega-6 fatty acids) are seed and nut oils like flaxseed oil and walnut oil.

## Big Fat Advice

Not all fats are created equal. Follow these expert tips for making the healthiest choices.

**Eat anti-inflammatory fats.** Whole foods like wild salmon, walnuts, and chia seeds are all excellent sources of inflammation-busting omega-3s, essential fatty acids (EFAs) that are required for cell health. Your body can't make its own omega-3s — this is why they're essential — so you have to get them through your diet. (For more on this, see [ELmag.com/efas](http://ELmag.com/efas).)

**Avoid refined oils.** Vegetable oils such as corn, soybean, sunflower, and safflower — and yes, even canola — are all heavily processed industrial oils that are overly high in inflammatory omega-6 fatty acids and prone to oxidation in the body. “Omega-6 fats not only fuel your body's inflammatory pathways, but also reduce availability of anti-inflammatory omega-3 fats in your tissues, resulting in more inflammation,” says Mark Hyman, MD, author of *Eat Fat, Get Thin*.

**Embrace full-bodied flavor.** “Any real oil should have flavor,” says Lisa Howard, author of *The Big Book of Healthy Cooking Oils*, noting that unrefined oils smell and taste like — and often have a color similar to — the original ingredient. An oil that's been heavily refined has no flavor, little aroma, and a flat, golden color. We're typically told to use canola oil because it's “neutral,” says Howard. “That's because it's been rendered rancid during the processing, then heavily filtered, deodorized, and degummed into neutrality.”

**Enjoy animal-derived fats.** High-quality grassfed butter and ghee (butter that has been clarified to remove the milk solids, which contain lactose and casein), as well as naturally produced lard, are good sources of animal-based fat. Steer clear of highly processed lard, warns Howard: “Many people think of lard as the hydrogenated stuff you get from a can. But real lard should be unprocessed and come directly from the animal.”

**Go for variety.** “It's always good to eat a variety, no matter what category of food, because they all offer different nutrients,” says Howard. Extra-virgin olive oil, for example, will give you a healthy dose of oleocanthal, an antioxidant with demonstrated anti-inflammatory properties. Adding sliced avocado to your salad will enhance your body's absorption of beta-carotene and other carotenoids in that salad — and give you an extra dose of fiber and protein. And grassfed butter will deliver a good supply of vitamin K2, as well as [conjugated linoleic acid \(CLA\)](#), a fatty acid with demonstrated anti-cancer properties.

**Choose quality, not quantity.** Pesticides and other toxins often concentrate in fats and oils, which are themselves highly concentrated, so it's important to opt for high-quality, organic products, says Deanna Minich, PhD, FACN, CNS, author of *Whole Detox*. Further, she advises against buying oil in bulk. “It's much better to have a smaller bottle of oil and go through it quickly than to buy a big vat and be stuck with that for months, because it will degrade,” she explains. This degradation produces chemicals known to cause oxidative stress in human cells and to contribute to degenerative disease.

**Beware of high-heat cooking.** If you heat an oil past the point at which it starts to smoke (its smoke point), free radicals and other toxic compounds form. Many experts advise keeping high-heat cooking with oil to a minimum altogether. “Any kind of high-heat cooking, which is typically where you use fats, creates a lot of [inflammatory](#) compounds,” says Minich.

# Fats in the Kitchen

To enjoy the healthiest results, choose organic, unrefined fats. Think about the flavor you want, and choose the appropriate fat for the cooking heat. Experiment with our experts' favorites, listed here by cooking-heat recommendations — or keep things simple and stick with extra-virgin olive oil, butter or ghee, and coconut oil.

FAT	COOKING HEAT	FAT SOURCE	PREDOMINANT FAT TYPE	STORAGE INSTRUCTIONS	GOOD TO KNOW
<b>Ghee</b>	High	Animal dairy	Saturated	Keep in a cool, dark place	Ghee is butter that has been clarified to remove the milk solids; it has a much higher smoke point than butter
<b>Coconut Oil</b>	Medium-high	Fruit	Saturated	Keep in a cool, dark place	This is a great source of medium-chain triglycerides (MCTs), which have numerous health benefits.
<b>Butter</b>	Medium	Animal dairy	Saturated	Keep in a cool, dark place, or refrigerate	Butter from grassfed cows delivers health-promoting fatty acids and other nutrients.
<b>Extra-Virgin Olive Oil</b>	Medium	Fruit	Monounsaturated	Refrigerate	Choose unfiltered oil: cloudiness indicates the presence of phytochemicals and other healthy compounds.
<b>Avocado Oil</b>	Medium	Fruit	Monounsaturated	Refrigerate	This mild-flavored oil is high in antioxidant carotenoids including beta-carotene.
<b>Lard, Rendered Bacon Fat, Schmaltz</b>	Medium	Animal fat	Monounsaturated	Refrigerate	For the healthiest nutrient profile, choose organic, unprocessed lard from animals that had access to sunlight and forage.
<b>Sesame-Seed Oil</b>	Low	Seed	Polyunsaturated	Refrigerate	While most polyunsaturated fats should not be heated, sesame-seed oil works well in low-heat cooking.
<b>Walnut Oil</b>	None	Nut	Polyunsaturated	Refrigerate	Use in raw preparations, such as salad dressings, drizzles, and dips.
<b>Flaxseed Oil</b>	None	Seed	Polyunsaturated	Refrigerate	This is one of the richest sources of alpha-linolenic acid (ALA), a plant-based omega-3 fatty acid.
<b>Hemp-Seed Oil</b>	None	Seed	Polyunsaturated	Refrigerate	Nutty and herbal in flavor, this is interchangeable with flaxseed oil.

# More on Fats and Oils: An Interview With Mark Hyman, MD

By Anjula Razdan

Given the ever-changing mindset about dietary fats, it can be downright confusing to determine which specific fats and oils to actually consume. To help us make sense of it all, we turned to functional-medicine pioneer Mark Hyman, MD, director of the Cleveland Clinic's Center for Functional Medicine and author of *Eat Fat, Get Thin: Why the Fat We Eat Is the Key to Sustained Weight Loss and Vibrant Health*.

**Experience Life | We can all agree now that trans fats are bad, but beyond that there seems to be a lot of confusion when it comes to what types of fats — and how much — to eat. In your opinion, what is the good news about how experts view fat now versus, say, 30 years ago? And what are most experts still missing the boat on?**

**Mark Hyman, MD |** The low-fat era is finally starting to come to an end. The 2015 U.S. Dietary Guidelines have, for the most part, exonerated fat and cholesterol with no restrictions on total fat or cholesterol in the diet — after 35 years of previous guidelines advising a low-fat and low-cholesterol diet. I think there is still a lot of misinformation floating around about saturated fat. Not all saturated fats are bad, and they've somehow been grouped together and labeled as harmful. So, we still have some work to do there.

**EL | You used to limit fat in your own diet, correct? Why and what were the health effects of that?**

**MH |** I spent years eating a low-fat diet and recommended it to all my patients. I would tell them to avoid sugars, and eat real, whole foods, but I wouldn't recommend fat and I would stay away from it myself. Finally, the tide started turning and more research came out about the benefits of fat. When I started to eat more fats, I lost the love handles that seemed impossible to get rid of, my brain became sharper, I was instantly more focused, and I got a six pack without even exercising more.

**EL | Even though this year's revised dietary guidelines stated that dietary cholesterol was no longer “a nutrient of concern” and softened the government's stance on reducing overall fat intake, there are still a lot of organizations and experts that push the no- or low-fat message. When it comes to fat, why are there contradictory views and recommendations among MDs and other experts?**

**MH |** There is contradictory information because the research is hard to read and, of course, if a study is being performed or funded by someone who has a strong opinion, the outcome is more likely to favor that opinion. The science is often for sale, which is unfortunate. A lot of experts are also looking at outdated research. These are studies in which people who are eating fat are eating bad fats, inflammatory fats, and junk foods. Well, of course, you would think that the fat is bad for you if you're looking at a study like that.

That's why I had to really sit down and unbiasedly sift through all of the research and see what was really happening, and that's why I wrote *Eat Fat, Get Thin* — because for years we were being fed the wrong information based on outdated research.

**EL | Even among those who recognize the virtue of dietary fat, there are still experts who are vehemently opposed to saturated fat. Given the recent studies and meta-analyses that have hinted that it's refined carbs/sugars and not saturated fats that drive cholesterol — as well as the recent *BMJ* study questioning the diet-heart hypothesis put forward by Ancel Keys in the 1950s — what is your take on saturated fat and its place in the diet?**

**MH** | Quality becomes paramount here. The saturated fat in a fast-food bacon cheeseburger will have an entirely different effect than saturated fat in coconut oil. I absolutely love healthy saturated fats like coconut oil and grass-fed butter, and I think they have a place in our diets. Healthy saturated fats can actually help you burn fat, they make your brain work better and faster, they make your skin glow, and they can help optimize your cholesterol profiles. It is very important that you only include saturated in the context of a diet that's very low in refined carbs and sugar and includes omega 3 fats. Saturated fats can improve lipid profiles by increasing HDL and overall cholesterol particle size, which does not promote heart disease. In fact, small lipid particle size — not LDL itself — is known to be the driver of heart disease. The entire LDL-lowering hypothesis is being questioned by studies including the recent *BMJ* randomized controlled trial that found that those who had the LDL lowered the most by vegetable oil had the greatest risk of heart attack or death. [Editor's Note: Learn more in "[Rethinking Heart Health.](#)"]

**EL** | Also, there are various types of saturated fat. Are there distinctions to be made among them? Are there certain types that are worse than others?

**MH** | The saturated fat in your diet has very little correlation to the saturated fat in your blood. We do know that higher saturated fats in your blood are linked to heart disease. The question is how do you get high saturated fat in your blood? Logic would dictate that it is by eating butter. But biology is not so straightforward. It is by eating sugar and refined carbs. Low-fat, high-carb diets trigger synthesis of the type of blood-saturated fats that are linked to heart disease.

**EL** | Is there any difference, health-wise and biochemically, between plant-based sources of saturated fat (coconut oil) versus say animal-based sources (let's say, grass-fed beef)?

**MH** | More and more studies are coming out in favor of the right kinds of meats. With meat, I always recommend choosing organic, grassfed — basically the highest-quality meat you can find. The fats in grain-fed meats or feedlot meats are way more inflammatory. Another concern that is raised is that [saturated fat](#) in meat causes heart disease. Yet, interestingly, the types of saturated fats that cause heart disease — stearic and palmitic acid — don't increase in your blood when you eat meat. Your liver produces these two fatty acids when you eat sugar and carbs. In other words, your liver produces saturated fat from sugar and carbs that causes heart disease.

But I still recommend using meat as a condiment — or “condi-meat” — and filling your plate with at least 75 percent phytonutrient-rich, colorful, non-starchy veggies. Plant foods, by volume, should take up the majority of your plate.

**EL** | What about those vegetable oils that some experts have championed? They are mentioned in same breath as fish oils because both are polyunsaturated, but are they equally healthy?

**MH** | The very idea that vegetable oils are better than saturated fats (like butter) comes from the belief that they lower total and LDL cholesterol, so they presumably reduce our overall risk of heart disease.

Following this type of advice means swapping out butter, meat, and lard for vegetable oils including corn, soybean, sunflower, canola, and safflower oils, which are all omega 6-rich, inflammatory polyunsaturated fats. Yet if we look at human history, we consumed much more omega-3 fats and much less omega-6 fats than we currently do, since wild foods are very rich in [omega-3 fats](#). The main source of omega 3s today is fish, yet wild game and wild plants, which are very high in omega 3s, used to be a much bigger part of our diet.

Wild meat and grass-fed beef contain about seven times as much omega-3 fats as industrially raised animals, which have almost none. Virtually all of the beef and animal products your great grandparents ate were pasture-raised, organic, grass-fed, and contained no hormones or antibiotics. There was simply no other kind of meat to eat.

Introducing refined oils into our diets and moving away from grass-fed and wild animals increased our omega-6 fat intake. Corn, soy, cottonseed, and canola oils skyrocketed, while omega-3 fats have dramatically declined. In that surge, many Americans sadly became deficient in these essential omega-3 fats.

Omega-6 fats not only fuel your body's inflammatory pathways, but they also reduce availability of anti-inflammatory omega-3 fats in your tissues, resulting in more inflammation.

Consuming too many omega-6 fats also increases the likelihood of inflammatory diseases and links to mental illness, suicide, and homicide. In fact, [studies](#) have shown a connection of mental health with inflammation in the brain.

***EL* | So, on a very basic level, what types of fat should we be eating?**

***MH*** | The best fats are organic cold-pressed extra-virgin olive oil and coconut oil, nuts and seeds, olives, wild fatty fish, avocados, grass-fed meats, a little bit of grass-fed butter and ghee. You want to stick with anti-inflammatory fats!

Cooking-wise, ghee, and coconut oil, and avocado oil are best for medium heat cooking or lower, and olive oil is great for low-temperature cooking, and dressing food.

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