

The Case for Keto

Analysis by [Dr. Joseph Mercola](#) ✓ Fact Checked

STORY AT-A-GLANCE

- › On a global scale, the obesity epidemic can be linked back to a Western diet rich in refined sugars and grains. Whenever sugar and white flour are added to a population's diet, regardless of what their baseline disease rate is, you eventually end up with an epidemic of obesity and diabetes
- › The hormones that link our diets to obesity are insulin and glucagon, so when we talk about the influence of diet on obesity, the glycemic index of carbohydrates play a key role
- › In 2018, the American Diabetes Association Nutrition Committee published a consensus report saying there was more consistent evidence for a low-carb or very low-carb diet being beneficial for Type 2 diabetes than any other diet tested, including the Mediterranean diet and the DASH diet
- › While processed sugars and grains are certainly a significant contributor to obesity and ill health, the types of fats you eat play an absolutely crucial role. Many are eating far too much omega-6 linoleic acid (LA), which appears to be even worse than excess sugar
- › Excessive LA in your diet can produce a negative feedback loop that causes your fat cells to become insulin sensitive, which then causes your body cells to become insulin resistant. So, insulin resistance is not restricted to excessive carb intake

This article was previously published January 10, 2021, and has been updated with new information.

Journalist Gary Taubes has written several books on diet, including "[Good Calories, Bad Calories](#)," "[The Diet Delusion](#)," "[Why We Get Fat: And What to Do About It](#)" and, most recently, "[The Case for Keto: Rethinking Weight Control and the Science and Practice of Low-Carb/High-Fat Eating](#)," which is the topic of this interview.

For his most recent book, Taubes interviewed more than 120 physicians, plus a few dietitians and chiropractors and a dentist – about 140 medical practitioners in all – to understand the challenges that clinicians and patients face when trying to implement a ketogenic diet and lose weight.

The first half of the book explains how carbs and fats affect your body, and why replacing carbs with healthy fats is so important if you're trying to control your weight and/or blood sugar. The second half of the book is a review of the lessons he's learned along the way.

The Real Cause of Obesity

As noted by Taubes, on a global scale, the obesity epidemic can be linked back to a Western diet rich in refined sugars and grains. Whenever sugar and white flour are added to a population's diet, regardless of what their baseline disease rate is, you eventually end up with an epidemic of obesity and diabetes.

The idea that you get fat because your caloric intake exceeds your expenditure is naïve, Taubes says. "That's not the cause of obesity. That's like saying we get rich because we make more money than we spend." He also takes issue with the idea that obesity is a hormonal regulatory disorder.

"There are a lot of hormones that play a role in fat accumulation. Sex hormones primarily. But the hormones that link our diets to obesity are our insulin and glucagon," he says. "I pretty much left glucagon out of the story because I don't think we need to discuss it to know what the dietary treatment is.

So, when you're talking about the influence of diet on obesity, it's not because we eat too much. It's not because we eat too much energy dense food. It's

[about] the glycemic index of the carbohydrates – how quickly can we digest the carbohydrates in our diet? And then the fructose content, the sugar content."

Uphill Battle Remains Despite Strong Scientific Evidence

Unfortunately, Taubes estimates some 98% of the conventional nutrition and obesity research community still approach obesity as an energy balance disorder. "They've been trained over their entire professional careers to think of obesity as caused by this imbalance in intake and expenditure," he says.

"They believe it's a direct consequence of the laws of thermodynamics. When they do research on this, they're often not studying why people accumulate excess fat. They're studying appetite and satiety and eating behavior, because they think that the reason why they accumulate fat can be explained if you can explain why they eat so much."

On the upside, many physicians are now starting to understand the role of diet, processed grains and sugar in particular. Interestingly, the U.S. Department of Agriculture Dietary Guidelines Advisory Committee's 2020 report claims there's an insufficient amount of low-carb and ketogenic diet trials to suggest that this kind of diet would be beneficial for the American public at large.

This, despite the fact that hundreds of studies over the past two decades have consistently shown a ketogenic diet to be beneficial. "Name a disease state at the moment from Alzheimer's to traumatic brain injury, and you'll find somebody studying whether or not ketogenic or a low-carb/high-fat diet could be beneficial," Taubes says.

“ When you spend your whole life believing something to be true and proselytizing about the truth of that supposed fact, it's very hard to think otherwise, no matter what the research shows. ”

In 2018, the American Diabetes Association Nutrition Committee published a consensus report¹ saying there was more consistent evidence for a low-carb or very low-carb diet being beneficial for Type 2 diabetes than any other diet tested, particularly ones that have been advocated by mainstream medical authorities, such as the Mediterranean diet and the DASH diet.

"So, clearly, the studies are out there," Taubes says. "I think what we're faced with is a sort of classic combination of cognitive dissonance and groupthink. When you spend your whole life believing something to be true and proselytizing about the truth of that supposed fact, it's very hard to think otherwise, no matter what the research shows."

The literature of cognitive behavioral psychology is full of studies and texts discussing this phenomenon. Cognitive dissonance ... is what happens when a brain is confronted with evidence that something that brain has believed indisputably is wrong."

Not All Fats Are Equal Metabolically

An important side note here is that while processed sugars and grains are certainly a significant contributor to obesity and ill health, the types of fats you eat play an important role. Many are eating far too much omega-6 linoleic acid (LA), which appears to be even worse than excess sugar.

In fact, I now believe an excess of LA in general is responsible for a vast majority of the damage and ill health we see in response to diet. Now, while most people will experience a significant improvement in their health when they cut down on processed carbs, replacing them with fats, the improvement is not universal. This paradox, I believe, is because they're eating too much LA.

Similarly, I think those who successfully use high-carb, low-fat diets to treat obesity, diabetes and coronary artery disease may be achieving these beneficial effects largely because they're avoiding excess LA. Taubes is not entirely convinced, however, and goes into some of the details of his objections in the interview.

"Here's what we need: We need to know how the LA changes in other populations, not just ours. Can we find populations that ate relatively large quantities of it but did not have obesity and diabetes and heart disease epidemics? Because if we do, that's a bad sign. Do we have clinical trials? We have a whole host of clinical trials poorly done, uncontrolled, but can we look at those and see what the levels are?" Taubes says.

The Importance of Self-Experimentation

As noted in Taubes' book, at some point, you'll need to be willing to self-experiment to determine your own dietary triggers and what works best for you. At the end of the day, it's about how you feel, not how well you follow any given diet. Taubes recommends starting off rigidly abstaining from carbohydrate-rich foods, and then assessing what other problems you might have and make additional changes from there.

"At the end of the book I talk about the lessons I learned from these 120 plus physicians I interviewed," Taubes says. "I have one section in which the opening quote is from a wonderful spine surgeon in Ohio, who's a vegan. She cannot tolerate animal products.

She has a family history of obesity. She used to be obese ... she's now a Type 1 diabetic, yet she sustains her health on a vegan ketogenic diet. And she says 'It's not a religion, it's about how I feel.' What she learned over the years is that her body couldn't tolerate animal products.

Whether it's the fat content, or the protein, or some other element of the animal-sourced foods, she can't do it. And then I compare her to Dr. Georgia Ede, a psychologist who's now working in western Massachusetts. She has slowly progressed to a carnivore diet, because she found that her body doesn't seem to tolerate plant-based foods. Again, it's not a religion, it's just about how she feels.

My book originally was called 'How to Think About How to Eat' ... One of the problems in this field is knowing who to believe. But I really thought about it as

a process of self-experimentation. You fix the big things, which we can all agree on, and even the low-fat proponents and the vegan proponents would define their diets as healthy if they don't include sugar and sugary beverages and white bread.

And then you start manipulating the smaller things to find out what your body can tolerate and what it can't. That's part of the process of learning how to think about how to eat. We learned over our youth what we liked and what we didn't like. Then when we became adults we refined our tastes ... and changed how we ate again.

Now, rather than doing it based on taste, we're going to do it based on how it makes our bodies feel and perform. That's the one advice we can give everyone to help them get healthier."

Why Restrict Carbs?

So, just why is carb restriction such a key component? I was surprised to find that Taubes has not yet embraced cyclical keto (eating low-carb on some days and relatively higher amounts of carbs, maybe 200% to 300% more on others). Instead, he advises a more regimented and consistent carb restriction, i.e., a ketogenic diet that remains low in carbs continuously.

The primary justification for this is because most obese and chronically ill people have an addiction to carbs. They are addicted to a certain way of eating, and the concern is that if you allow carbohydrates back into their diet they can trigger eating carbs without discipline.

"If you're doing a carbohydrate addiction program, any addiction program, moderation is one of the worst messages you could give. Nobody tells smokers to smoke in moderation, or alcoholics to drink in moderation, because we know it's going to fail.

So, what worries me about cyclical programs is that ultimately, it's advocating consumption of a product that these individuals are going to want to always eat more of. Sometimes rigid abstinence is easier. That's the only issue."

That said, I, and nearly all of my clinical associates who see patients, especially those who are athletes, now personally use and recommend cyclical ketosis. Personally, I will eat 30 to 50 grams of carbs one day and then 100 to 150 grams the next day. I'll alternate back and forth. To make sure you're moving in the right direction, you can measure and monitor your ketones and blood sugar.

The problem I've seen consistently is that if you restrict carbs continuously, your blood sugar tends to rise. The reason for this is because your body requires a certain amount of carbohydrates (glucose) to function. If you're not getting it from your diet, your body makes more of it in your liver to supply your needs.

I hopefully catalyzed Taubes to seriously reevaluate his position as to one that is more consistent with our ancestral consumption of carbs. He responded:

"I'm taking in what you're saying and I'm thinking [about] my own experience. I've found that over the 20 years I've been eating a very low-carb diet, there are fewer and fewer things that I can eat because my body responds to them.

Maybe had I been doing cyclical keto I'd not have that issue. Maybe I'd be at the same sort of general weight and health status but my body would be more tolerant of the foods I'm not eating. I don't know what the answer is, other than self-experimentation, ultimately."

How Excess LA Breaks Your Metabolism

If you're like Taubes and are concerned about starting cyclical integration of carbs into your diet, I would recommend using a continuous glucose monitor like the Nutrisense device that allows you to measure and record your blood glucose every five to 10 minutes.

This will allow you to determine whether chronic low carb dieting is working optimally, or whether cycling higher and lower carb intakes might be better. Continuous blood glucose monitoring can immediately tell you how various foods affect your system.

Cycling back to the issue of LA again, it's important to recognize that excessive LA in your diet can cause extreme reverse electron transport flow through complex I in your mitochondria with the production of high quantities of superoxide and H₂O₂, which actually causes you to become insulin resistant. So, insulin resistance is not restricted to excessive carb intake.

Limiting LA will also help reduce oxidative LA metabolites, which are the most pernicious sources of oxidative stress in your body. These oxidized LA metabolites (OXLAMs) prematurely destroy mitochondria and limit your ability to efficiently create ATP.

When you eat an excessive amount of LA, the disruption it causes in your mitochondrial electron transport chain causes your fat cells to become insulin sensitive. This is the last thing you want. While you want your somatic cells to be insulin sensitive, your fat cells need to be insulin resistant.² As explained by Dr. Paul Saladino in an interview I did with him:

"You are supposed to be insulin resistant in ketosis. That's how your body partitions glucose to the cells that need it. [When] you have a ketogenic diet based on canola oil, safflower oil or soybean oil, you see people remain insulin sensitive when they're in ketosis.

This is clear evidence that polyunsaturated fats are breaking your metabolism. Glucose is lower because it's going into your cells; it's making bigger cells. You're getting fat."

The take-home message here is that a proper ketogenic diet must be based on healthy saturated fats, not destructive vegetable seed oils or other common foods that are loaded with LA. Eating a high-fat diet, when the fats are primarily LA, is far worse than eating a chronic high-carb diet. The type of fat is of crucial importance, as it impacts your mitochondrial, cellular and metabolic functioning.

I realize that this information likely leads many of you to many questions. The good news is I'm co-writing a new book on all of this with Chris Knobbe, who is a leading expert. We hope to have the book out by the summer of 2021.

More Information

To learn more about how carb restriction can improve your weight and health, be sure to pick up a copy of Taubes' book, "[The Case for Keto: Rethinking Weight Control and the Science and Practice of Low-Carb/High-Fat Eating](#)."

While I believe most people would benefit from additional dietary changes, such as implementing a cyclical ketogenic diet and limiting LA, the basic premise of carbohydrate restriction is certainly sound, and is likely to improve the health of virtually everyone.

Then, as mentioned earlier, you may need to continue to fine-tuning and tweaking your nutritional choices to find just the right fit. You may also find that your body's needs change with age. This is completely normal, and to be expected, so there's no need to be dismayed if what you've done for a number of years no longer is working.

Sources and References

- [1 The Low Carb Healthy Fat Dietitian December 19, 2018](#)
- [2 High Intensity Health, How LA Alters Your Metabolism](#)