

Diets for Inflammation Reduction and Chronic Illness Treatment

There is considerable debate about low-fat, plant-based diets versus low-carbohydrate, high-fat diets. And, while these nutritional therapies cater to different individual needs, both diets may offer benefits for reducing inflammation.

By Meredith Whitmore



FOR AVERAGE AMERICANS striving to improve their overall health, studying various nutritional regimens can at times feel like studying dogmas. Vegans, vegetarians, pescatarians and their more carnivorous challengers, including Paleolithic (paleo) and ketogenic diet supporters, flock to publishers to “duke out” their beliefs, trying to refute one another’s research and prove which diet is best.

Look to Amazon or a local bookstore for proof. Book and video titles such as *The Low-Carb Myth*, *The Vegetarian Myth*, *Proteinaholic*, *The Starch Solution*, *Cereal Killers*, *The Case Against Sugar* and the ever-witty *Eat Bacon, Don’t Jog* represent warring viewpoints. Look also to YouTube, which is full of dietary debates, including impressive exchanges between lifestyle leaders such as epidemiologist T. Colin Campbell, PhD, author of *Forks Over Knives*, and Duke University researcher and obesity expert Eric Westman, MD.

Increasingly, however, experts have one belief in common no matter the “flavor” of their dietary choices: Chronic systemic inflammation is a key enemy to people’s overall health.¹

While acute inflammation is brief, beginning after a wound or

the onset of illness, and is a sign that the body is healing itself, chronic inflammation can be a sign that the body is turning against itself. Caused by a prolonged activation of the immune system (often the result of a poor diet or genetics), chronic inflammation can contribute to or even cause illnesses such as heart disease, diabetes, Alzheimer’s and cancer. It can also exacerbate chronic illnesses such as rheumatoid arthritis, multiple sclerosis and other diseases. When a person decreases their inflammation, overall health often improves, regardless of any underlying chronic illness that remains.^{1,2}

So, how does one reduce inflammation beyond using medication such as statins? For those wanting to forego pills, diet and weight loss are key.³ Two of the most popular dietary approaches eliminate refined carbohydrates such as sugars and white flour, which are known to increase inflammation. These approaches are a low-fat, whole-food, plant-based diet (including vegetarianism), and a high-fat, moderate protein, low-carbohydrate lifestyle often known as a ketogenic lifestyle. While they are on opposite ends of the spectrum, both may offer benefits.

Low-Fat, Plant-Based Diets

Charles Ross, MD, an osteopathic physician and professor at Western University of Health Sciences, is a passionate proponent of the whole-food, plant-based diet. He has studied diet for 40 years and happily landed in the vegetarian camp, basing his beliefs largely on research by Michael Greger, MD, who has an extensive online presence. “It’s been known for some time that the break-down products of meat and dairy produce inflammatory products. But the fiber in one’s diet can reduce inflammation,” says Dr. Ross. “Fiber produces compounds such as butyrate, and butyrate is an anti-inflammatory hormone that signals to the brain that you have enough healthy bacteria in your body. If your butyrate levels go down, though, that can mean that there aren’t good bacteria, and that can mean areas of inflammation throughout the body. You get butyrate from the fiber in your diet. And where do you get fiber? Plants. Fiber is not found in any animal product. Zero.”

In fact, Ross says fiber is extremely important for health. “We were eating 60, 80, 100 grams of fiber per day back in the 1900s, and the average American is down to 14 grams of fiber today,” explains Dr. Ross. “For every 10 grams of fiber you add to your diet, you decrease your colon cancer risk by 10 percent, your breast cancer risk by 8 percent and your heart attack risk by 9 to 10 percent. And if you add 14 grams of fiber into your diet, you reduce your desire for calories by about 10 percent.” That, says Dr. Ross, translates to weight loss and lowered inflammation.

“The only diet that’s ever been shown to reverse heart disease — not just prevent it, but reverse it — is a whole food, plant-based diet, without refined carbohydrates. No refined oil, no refined sugar. If we want oil or fat in our diet, then we eat the olive or the nuts or an avocado. And we eat only about 10 percent fat. We get our protein and other nutrients from beans, lentils, rice, quinoa, potatoes, soy, fruit,” adds Dr. Ross.

“Drs. Dean Ornish and Caldwell Esselstyn showed in their research that people can reverse clogging in arteries in one to three years of eating a whole-food, plant-based diet. You don’t need a stent. You don’t need a bypass. For two years, I did this. No olives, no nuts and seeds, no avocado, nothing with any refined oil in it, actually. I got my only oil from beans, lentils and other plants. My protein was about 8 to 10 percent also, which is more than adequate for health, and much less than what the SAD [standard American diet] follows. In one month after following [John McDougall, MD,] as well as [Drs.] Esselstyn, Ornish and Greger, my cholesterol was down from 230 to 148. Now, it’s down to 135. My weight is down 20 pounds, too. I feel great. And so do the 500 or so students who have been through

my program and switched to a whole-plant, low-fat diet. Their testimonials of health improvements are inspiring.”⁴

Low-Carbohydrate, High-Fat Diets

On the other side is a high-fat, low-carb diet, known as a ketogenic lifestyle. A growing number of studies show that dietary fat is not the dreaded enemy it was once considered after the release of a 1958 study on its effect on heart disease conducted by Ancel Keys, PhD. Many experts, in fact, now believe that Dr. Keys got his data entirely wrong, and the flawed research has led to the low-fat, high-carbohydrate lifestyles believed to have caused the obesity epidemic in this country.^{5,6,7} Instead, doctors who promote a ketogenic lifestyle say fat intake can reduce one’s weight and help to reduce pain and chronic inflammation.^{3,8,9}

Sean Bourke, MD, co-founder and chief medical officer of JumpStart, a San Francisco-based nutrition education and lifestyle change program, sees things much differently from Dr. Ross. In referring to *The China Study*, a book by T. Colin Campbell that examines the relationship between consuming animal products and chronic illnesses, Dr. Bourke says: “Dr. Campbell is a statistician/epidemiologist, not a physician. *The China Study* is the largest epidemiological study ever done. But the problem with observational epidemiological studies is that you can create associations but not necessarily causality. And he’s done the opposite. He has this great epidemiological study, but of course we can’t show causality. Then, however, he goes to say that everybody should be a vegetarian.”⁹

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One of the problems with that, says Dr. Bourke, is that carbohydrates of any kind have been shown to increase inflammation in many people: “One of the biggest predictors of creating diabetes, for example, is an inflammatory state. So then you have your smoking gun in that the number-one macronutrient change that we’ve made over the last 50 or so years in a low-fat phobic state was a reduction in fat and an increase in carbohydrate consump-

tion. Obesity rates in this time have tripled and now, arguably, as much as 50 percent of the country is either prediabetic or diabetic, both inflammatory states. In 1961, only 1 percent of the country was diabetic. Today, approximately 11 percent of the country is diabetic. It's crazy.

"Inflammatory markers such as IL6 and CRP are reduced dramatically in a low-carb state. If you look at all the markers of metabolic syndrome, which is a pro-inflammatory state, and then look at the studies, people did more at reducing all those pro-inflammatory risks in a low-carb, higher healthy fat state than they did in any of the other diet studies. They also lost more weight, both short term and long term. That is certainly what we're seeing."

THOUGH IT WOULD BE MORE CONVENIENT, THERE'S NO ONE DIET THAT HELPS EVERYONE.

Still, Dr. Bourke is open-minded: "I think everybody's got to figure out which diet works for them. There is no one-size diet. So you want to individualize dietary guidelines and recommendations. There's no question in my mind that there is a small percentage of people who would greatly benefit from a balanced vegetarian diet, particularly compared with the standard American diet. But I can't think of a traditional society on the planet that, given the choice, would want a wholly vegetarian diet. So you've got ostensibly small, arguably skewed studies for vegetarianism, and then a lot of large epidemiologic studies that say vegetarianism is a great panacea, and that's completely wrong. Successful vegetarians aren't likely to have the genetic proclivity to be insulin-resistant. But, I would say the people who are the most insulin-resistant [carbohydrate-sensitive] would benefit the most from a lowest-carb, higher healthy fat diet."^{9,10}

"Vegetarianism might work for some people but it certainly doesn't work for everyone. We see plenty of vegetarians who come into JumpStart, and they're sick. That said, we can also do JumpStart in a vegetarian state. It's all a matter of trying to properly engineer macronutrients [protein, carbohydrate, fat] to minimize inflammation and create a low-insulin state. Such a state also lowers inflammation."

Dr. Bourke also refers to the A to Z Trial, a research study conducted by Christopher Gardener, PhD, at Stanford University in 2007 and published in the *Journal of the American Medical Association*. Participants in the study followed high-, medium- or low-carbohydrate diets. After one year, results showed the low-carbohydrate group had the best results overall both in terms of weight loss and risk reduction. The insulin-resistant subjects did particularly poorly on a high-carbohydrate diet and particularly well on a low-carbohydrate diet.

Besides lowering health risks, including inflammation, people feel better and have steady fuel flow in a consistently low-carb, low-insulin [ketosis] state, says Dr. Bourke: "You're not hungry because you're tapping, or liberating, your fat reserves constantly. That's part of the battle and the benefit of a low-carb state. There's less craving, there's less hunger despite a lower calorie count, and there's a steadier energy level with fewer highs or lows.

"If you want proof that ketogenic lifestyle works, go to presentations. There are presentations galore around the country where panels show definitively that high-fat, low-carb works. The evidence crushes the low-fat, DASH [Dietary Approaches to Stop Hypertension] fruit and vegetable diet argument. I mean, the low-fat arguments simply don't win."

Diets Are Individual

Though it would be more convenient, there's no one diet that helps everyone. Both plant-based and ketogenic diets have benefits, depending on a person's needs and genetics. No matter which lifestyle is of interest or seems to fit better, individuals should not undertake any new dietary plan without medical guidance. They should seek a doctor who specializes in ketogenic or plant-based diets for advisement. ■

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