



95% of Americans Are Missing a Key Nutrient for Curbing Chronic Inflammation

By Dana Hudepohl
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Anytime you're injured or sick, you count on your immune system to kick in. Inflammation is an essential part of the healing process, but when it becomes chronic, it does more harm than good, contributing to a range of health conditions, including allergies, autoimmune diseases, [Type 2 diabetes](#), depression, and Alzheimer's. "Unfortunately, our modern lifestyle translates to way too many people dealing with chronic inflammation," says [Will Bulsiewicz, M.D., MSCI](#), gastroenterologist and author of *The Fiber Fueled Cookbook*. Bulsiewicz notes that more than 9 in 10 Americans are deficient in fiber, "the weapon of choice to combat chronic inflammation."

Beyond crowding out inflammatory foods such as processed meats and refined grains, fiber-rich foods help curb chronic inflammation in a variety of ways. [Here's how fiber works its magic.](#)

1. Fiber Feeds Healthy Gut Bacteria

As much as 80% of the immune system resides in the gut barrier lining your intestinal walls. Prebiotic fiber acts as food for the beneficial gut bacteria so they can multiply, increasing the healthy diversity of the microbiome and suppressing inflammatory microbes.

"When you [feed] these [beneficial] microbes, they do a number of magical things," Bulsiewicz says.

For example, when fiber reaches your intestines, the gut microbes produce short-chain fatty acids (SCFAs), which have the capacity to heal your gut barrier in a cycle that renews every three to four days. A healthy gut barrier acts like a bouncer for your body, letting in nutrients and ushering pathogens, toxins, and other inflammation-causing undesirables straight to the exit.

2. Keeps Visceral Fat in Check

The SCFAs produced by fiber-fed microbes trigger the release of a gut hormone called GLP-1—the same hormone mimicked in [Ozempic](#) and other popular weight-loss drugs—that sends the message to your brain that you're full. This may be why clinical studies have found that higher-fiber diets are linked to significantly lower body weight. High-fiber diets are also tied to lower levels of visceral fat, the deep fat that wraps around the inner abdominal organs and "churns out 'hidden' inflammation at all hours of the day," says [Shilpa Ravella, M.D.](#), gastroenterologist and author of *A Silent Fire: The Story of Inflammation, Diet, and Disease*. A study in the journal [Gut](#) found that faster gut transit time and a healthy microbiome, both byproducts of fiber, are associated with lower levels of visceral fat.

3. Promotes Healthy Blood Vessels

High cholesterol levels and hypertension injure the endothelial cells that line the blood vessels supplying blood to and from the heart. As the body attempts to heal these wounds, it triggers an inflammatory immune response. Studies [have found](#) that higher-fiber diets are linked to [lower cholesterol](#) and blood pressure, sparing the cardiovascular system this strain and inflammation. Soluble fiber, which is abundant in plant foods, especially beans, green peas, apples, and avocados, actually binds to cholesterol in the small intestine, sweeping it out of the body before it can get into your bloodstream.

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A healthy gut barrier, courtesy of fiber, also limits the release of bacterial endotoxins, thus limiting vascular inflammation. “We need to be eating a wide variety of plants in order to optimize the gut microbiome and to be able to prevent or treat inflammation in the body,” Ravella says.

4. Regulates Blood Sugar

Spikes in blood sugar trigger an immune response, causing the body to produce more inflammatory molecules. Because of its physical structure, fiber slows blood sugar absorption and blunts glucose spikes. “This is why eating fruit is not the same thing as eating candy,” says Bulsiewicz. And by producing SCFAs, fiber stimulates receptors in the body that help increase sensitivity to insulin, the hormone released by your pancreas in response to sugar.

In a study published in the journal [Nature](#) in February 2024, researchers measured the metabolic responses in 1,000 people after eating a meal. The microbiome was one of the most meaningful predictors of insulin sensitivity, “more powerful than your body shape, more powerful than your age, more powerful than the meal you just ate, and way more important than your genetics and gender,” Bulsiewicz says.

Other Inflammation Fighters

Alongside a fiber-rich diet, keep these strategies in your inflammation-fighting toolbox.

Eat fermented foods



In a [2021 randomized controlled trial](#) out of Stanford

University, people who added fermented foods to their daily diet increased microbiota diversity and decreased inflammatory markers.

Exercise

Even when it doesn't lead to weight loss, regular exercise increases the diversity of the microbiome, decreases inflammatory visceral fat, and reduces inflammatory cytokines.

Manage stress

Chronic stress leads to chronic low-level inflammation. Keep stress in check by getting enough sleep, nurturing social connections, and incorporating practices such as meditation and [yoga](#).

To learn more about a whole-food, plant-based diet, visit our [Plant-Based Primer](#). For meal-planning support, check out [Forks Meal Planner](#), FOK's easy weekly meal-planning tool to keep you on a healthy plant-based path.