



Vegan Diet Lowers Insulin Needs for Type 1 Diabetic Patients, Groundbreaking New Study Suggests

By Courtney Davison
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When it comes to [Type 2 diabetes](#), there's no shortage of evidence that a healthy plant-based diet is an effective tool for prevention and treatment. Now, a first-of-its-kind study finds that such diets may help manage Type 1 diabetes, as well, reducing insulin needs, improving insulin sensitivity, and promoting [heart health](#) in people living with the chronic disease.

The [study](#), led by researchers at the Physicians Committee for Responsible Medicine and published in *Clinical Diabetes* in March 2024, is the first randomized clinical trial to look at the impact of a vegan diet on T1 diabetes. Researchers split 58 participants into two groups: one group followed a low-fat vegan diet and ate as much as they liked; the other ate a non-vegan diet. The latter group followed individualized diet plans, with overweight participants reducing their calorie intake by 500 to 1,000 calories a day. Participants followed their prescribed diets for 12 weeks, recording their nutrient intake and insulin dosages at each meal.

At the end of the trial, the researchers noted significant differences between the vegan group and the non-vegan group. Participants in the vegan group lost 11 pounds, on average, while the non-vegan group saw no significant changes in weight. Compared with the other group, participants on the low-fat vegan diet saw a 28% reduction in insulin needs and 127% improvement in

insulin sensitivity. The researchers also noted improvements in A1C (a measure of average blood sugar) for both groups, with the vegan group seeing a slightly larger improvement. Because heart disease and diabetes are closely intertwined, the researchers also ran lipid panels for the participants at the beginning and end of the trial. While both groups saw reductions in their [total cholesterol](#), the vegan group saw a larger drop-off—about 32 points, compared with an 11-point drop among the non-vegan group.

A Natural Way to Reduce Insulin Needs

“With the cost of insulin remaining a concern for many, our groundbreaking research shows that a low-fat vegan diet that doesn't restrict carbs may be the prescription for reducing insulin needs, managing blood sugar levels, and improving heart health in people with Type 1 diabetes,” says Hana Kahleova, M.D., Ph.D., the lead author of the study and director of clinical research at the Physicians Committee for Responsible Medicine.

Insulin is a hormone that helps move glucose (sugar) out of the bloodstream and into muscle and liver cells, where it's used as energy. T1 diabetes, formerly known as juvenile-onset diabetes, is an autoimmune condition in which the pancreas produces little to no insulin, causing glucose to remain in the bloodstream for longer than it should, damaging the blood vessels and leading to other serious health problems.

Accounting for just 5–10% of all diabetes cases in the United States, T1 diabetes is less common than T2, though [rates have been increasing](#) in recent years. There is no cure for T1 diabetes, but lifestyle strategies—including adopting a diet rich in whole plant foods—may improve outcomes.

“Type 1 diabetes cannot be cured with diet,” says Physicians Committee President [Neal Barnard, M.D.](#) “However, dietary changes can help people reduce medications and reduce the risk of complications.”

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In 2003, with funding from the National Institutes of Health, Barnard led the first major randomized clinical trial comparing a plant-based diet and a more conventional, portion-control diet for the management of Type 2 diabetes, finding that the low-fat plant-based diet led to a 300% greater reduction in A1c. Barnard says he hopes this latest study may spur similar improvements in the treatment of Type 1 diabetes.

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.