



What Happens When 1 Twin Goes Vegan and the Other Keeps Eating Meat? New Stanford Medicine Study Investigates

By Courtney Davison
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Editor's Note (Dec. 15, 2023): A docu-series about the Stanford Medicine twin study is coming to Netflix on Jan. 1, 2024. [Watch the trailer for You Are What You Eat: A Twin Experiment here!](#)

With the help of identical twins, a team of researchers at Stanford Medicine have uncovered some of the most compelling evidence yet that a vegan diet can significantly improve heart health in as little as two months.

How It Worked

For the randomized controlled trial, the team recruited 22 pairs of healthy adult identical twins via the [Stanford Twin Registry](#), a database of twins who have signed up to participate in research. At the outset of the study, the researchers drew participants' blood and recorded their weight. Then they assigned one twin from each pair to follow a vegan diet for eight weeks, and the other to an omnivorous diet.

The researchers ensured that both diets were as healthful as possible, with both the vegan and omnivore diets containing ample vegetables, beans, fruits, and whole grains and minimal sugar and refined starches. The omnivorous diet additionally included chicken, fish,

eggs, cheese, and dairy. For the first four weeks, breakfasts, lunches, and dinners were provided via a meal-delivery service seven days a week for all participants. For the final eight weeks of the study, they prepared their own meals.

What They Discovered

At four weeks and eight weeks, the researchers again drew blood samples and weighed the participants again. They found that, at the halfway point, the twins eating vegan had already seen significant improvements in their cardiometabolic health, with lower LDL cholesterol, insulin, and body weight. By the completion of the study, the vegan group had reduced their LDL by around 14% and their fasting insulin levels by 20%. They'd also lost, on average, 4.2 pounds more than the omnivorous group.

The results were published November 30 in [JAMA Network Open](#). "The findings from this trial suggest that a healthy plant-based diet offers a significant protective cardiometabolic advantage compared with a healthy omnivorous diet," the authors concluded.

Why This Study Is Groundbreaking

Over the past few decades, there's been no shortage of research supporting the health benefits of plant-based diets, with dozens of studies linking them to lower rates of [Type 2 diabetes](#), [heart disease](#), and [obesity](#). But the vast majority of these studies are observational, which can make it hard to pinpoint cause and effect: Are these people healthier *because* they're eating a more plant-based diet, or do people who are already healthier for other reasons tend to follow a more plant-based diet?

Randomized clinical trials (RCTs), a gold standard in scientific research, allow scientists to control for extensive variables so that they can more confidently identify cause and effect. Other interventional studies on vegan or plant-based diets conducted to date have found similarly promising results. A July 2023 [meta-analysis](#) of 20 RCTs found reductions in LDL cholesterol and body

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weight for participants assigned to vegetarian, vegan, and plant-based diets.

RCTs involving identical twins afford researchers the additional advantage of subjects with virtually identical genes and similar upbringings. Christopher Gardner, PhD, senior author of the Stanford Medicine study and a professor of medicine at the university, [commented](#) afterward that the study provided “a groundbreaking way to assert that a vegan diet is healthier than the conventional omnivore diet.”

“Based on these results and thinking about longevity, most of us would benefit from going to a more plant-based diet,” Gardner said.

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.