

DASH-Style Diet Helps Control Blood Glucose

Compared to a typical American diet, a DASH-style eating plan for people with diabetes led to more time with blood glucose in the recommended range.

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The Dietary Approaches to Stop Hypertension (DASH) diet was developed more than 30 years ago by NIH-supported research teams. It was designed to reduce high blood pressure. Studies have since shown that the DASH diet can have positive effects on cardiovascular health and may have other health benefits.

The DASH diet encourages eating fruits, vegetables, whole grains, and low-fat dairy products. It favors lean sources of protein, like beans and lean meats, and suggests limiting saturated fats and sugar-sweetened food and drinks. Because it emphasizes foods and nutrients that can also help control blood sugar, the diet is often recommended for people who have diabetes. But details of its impact on blood glucose control and variability are not fully understood.

A research team led in part by Dr. Elizabeth Selvin at Johns Hopkins Bloomberg School of Public Health aimed to take a closer look. They tweaked the DASH diet in ways designed to help people with type 2 diabetes. The modified diet, called DASH for Diabetes (DASH4D), suggests that carbohydrates be only about 45% of total calorie intake, compared to 55% in the original DASH diet. DASH4D also encourages less dietary potassium, to protect kidney health, and more unsaturated fats compared to the original DASH diet.

The clinical trial included 89 people with type 2 diabetes. Their mean age was 67 years, and 67% were female. The study used a crossover design, in which participants were fed one of four different diets, in random order, for five weeks. With at least one-week breaks in between, they were fed all four diets. Two of the diets were DASH4D, with either higher or lower salt intake (to evaluate blood pressure). The other two diets were typical of what's eaten by many American adults, with either higher or lower salt. All meals were carefully measured and prepared in a clinical research kitchen. The diets were designed to maintain a stable weight, and participants ate no other foods during the study.

The researchers used a continuous glucose monitor to measure each participant's blood glucose levels during each diet period. The monitor, attached to the upper arm, measured blood glucose levels every 15 minutes for up to two weeks. Study results were reported in [Nature Medicine](#) on

August 5, 2025.

Overall, the DASH4D eating plans led to more time with blood glucose in the recommended range (between 70 and 180 mg/dl) and less time with glucose above 180 mg/dl compared to the typical American diets. DASH4D also led to significantly reduced mean glucose levels. On average, mean glucose was 11 mg/dl lower than when the people ate the typical American diets.

For participants with the highest blood glucose levels at the start, DASH4D led to more time in the optimal blood glucose range—about two or three more hours per day compared to the typical diet.

Because the study compared participants with themselves under different diet conditions, it eliminated variability between people, enhancing the statistical power of the study. This allowed the team to detect meaningful treatment effects despite the relatively small study size.

“The original DASH diet has long been recommended for people with diabetes and other health conditions due to its effectiveness in lowering blood pressure, but this is the first time a controlled study has shown a significant improvement in glucose control as well,” Selvin says.

This [research summary](#) was published by the National Institutes of Health on August 19, 2025.