

DASH eating plan lowers long-term heart attack risk, especially among African-Americans

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The DASH eating plan, known to reduce blood pressure and bad cholesterol, also reduces the 10-year risk of heart attack, especially among African-Americans, according to research reported in *Circulation: Cardiovascular Quality and Outcomes*, an American Heart Association journal.

The DASH eating plan emphasizes fruits, vegetables and low-fat dairy products as well as [whole grains](#), poultry, fish and nuts. The plan also calls for a reduction in fats, red meat, sweets, and sugar-containing beverages. It is recommended by the U.S. government and American Heart Association. The study researchers found that the DASH plan:

- lowered the participants' 10-year risk of having a heart attack or other [coronary heart disease](#) event by about 18 percent compared to those eating a typical American diet;
- reduced [bad cholesterol](#) (LDL cholesterol) an average of 8 percent; and
- reduced systolic blood pressure overall by 6 millimeters of mercury (mmHg).

In addition, glucose levels did not change significantly, likely because

the study's participants did not have diabetes.

"This study provides further evidence that we can make a significant impact on the heart health of the general population by promoting the DASH eating plan," said Nisa M. Maruthur, M.D., M.H.S., study co-author and assistant professor of medicine at Johns Hopkins Medical Institutions, Baltimore, Md.

Adding more fruit and vegetables to the typical American diet did not produce the same degree of risk reduction as the DASH arm of the study. However, participants who ate the diet with more fruit and vegetables still lowered their 10-year risk of having a heart attack or other coronary event by an average of 11 percent compared to the typical American eating plan group.

In the study, 436 patients (average age 45, 60 percent African-American) had either Stage I [high blood pressure](#) (140-159/90-99 mmHg) or were pre-hypertensive (120 - 139/80-89 mmHg) and assigned to one of three diets: the DASH eating plan; a typical American diet (low in minerals, such as potassium, magnesium and calcium, and high in saturated fat, total fat, and cholesterol); or the typical [American diet](#) plus additional fruits and vegetables.

To determine how DASH affected coronary heart disease risk, researchers plugged their data (blood pressure and cholesterol results) into the Framingham Heart Risk Equation and calculated the 10-year risk of developing coronary heart disease, researchers said. The Framingham Risk equation uses data that has been collected from the ongoing Framingham Heart Study, which has followed two generations of participants in Framingham, Mass. This equation is commonly used by doctors to estimate the risk of heart disease in their patients.

"The blood pressure reduction in blacks seemed to be somewhat greater

than in whites," Maruthur added. "Blacks seem to be particularly sensitive to the blood- pressure-lowering effects of the DASH diet."

This research confirms that people can benefit from eating according to the DASH plan. The next step, according to researchers, is to make policy changes that encourage Americans to embrace the DASH eating plan.

The trial was a "feeding study," in which researchers provided participants with food and compared blood pressure, cholesterol and [glucose levels](#) before the study to eight weeks after the study began. This was not a weight loss study, and the participants' weight remained stable throughout the study period.

"This is not a diet that is difficult to maintain. It includes all types of foods," Maruthur said. "It is a way of eating recommended in the American Heart Association's 2020 Strategic Goals, in the 2006 American Heart Association diet and lifestyle recommendations, and in the U.S. Dietary Guidelines for Americans. We and others have shown that eating this diet should have great public health benefits given the enormous and persistent burden of coronary heart disease."

Provided by American Heart Association

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