

# Healthy eaters, ignore glycemic index: Clinical trial shows no beneficial effects on heart disease, diabetes risk

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Credit: Wikipedia.

Good news for people who are already following a diet rich in fruits, vegetables and whole grains, and low in sweets: New research suggests these heart-healthy eaters don't need to worry about choosing low glycemic index foods to lower the risk of diabetes and heart disease. Though the study was not designed to test the effects of low glycemic index foods on weight control, its lead researchers looked at studies that did focus on weight and found no clear proof of a benefit.

The [glycemic index](#) is a measure of how quickly foods containing carbohydrates, such as fruits, cereals and baked goods, raise glucose levels in the bloodstream. Conventional wisdom says that [high glycemic](#)

[index](#) foods like bananas and pasta are "bad" for heart health and may increase diabetes risk. But in a clinical trial reported Dec. 17 in the *Journal of the American Medical Association*, researchers at the Johns Hopkins University School of Medicine and Harvard Medical School found little evidence to support these claims.

Study volunteers followed carefully planned diets high or low in carbohydrates and with high or low glycemic index scores. Tests tracked the volunteers' [blood pressure](#), cholesterol levels and sensitivity to insulin at the beginning and end of each diet. The results showed little difference between high and low glycemic index foods, says study co-director Lawrence J. Appel, M.D., M.P.H., a professor of medicine and director of the Welch Center for Prevention, Epidemiology and Clinical Research at Johns Hopkins Medicine.

"We were really surprised," Appel says. "We did not detect any clear benefit of the low glycemic index diets on the major risk factors for heart disease, and we found no evidence of benefit for diabetes prevention."

The authors looked closely at other studies focusing on the use of low glycemic index foods in weight control. "The evidence has been inconsistent that low glycemic foods help people lose more weight or keep it off," Appel says. "In looking at the causes of obesity and ways to combat it, a narrow focus on the glycemic index seems to be unwarranted."

Several popular diets recommend choosing carbohydrates that score low on the glycemic index, but that's not always easy. Only laboratory tests can determine a food's glycemic index, and the results can be unexpected: Apples score low, but cantaloupe scores high.

Appel and study co-director Frank M. Sacks, M.D., a professor of

medicine at Harvard Medical School, wanted to find out whether foods' glycemic index matters to heart health and diabetes prevention. They recruited 163 volunteers from Baltimore and Boston—all of whom were overweight and had above normal blood pressure—and randomly assigned them to follow one of four diets. Each diet contained the same number of calories, but those calories came from foods that were either high or low in carbohydrates, and also either high or low on the glycemic index. The volunteers ate the day's main meal at a research center and took home their next two meals.

After five weeks on their assigned diets, the volunteers switched to a different one. Researchers tested the volunteers' blood pressure; sensitivity to insulin; and levels of "good" high-density lipoprotein (HDL) cholesterol, "bad" low-density lipoprotein (LDL) cholesterol and triglycerides—fat molecules, or lipids, that play a role in [heart health](#). The [low glycemic index](#) diets did not lower blood pressure or LDL cholesterol, and they did not improve insulin resistance.

Women made up 51 percent of the study's volunteers, and African-Americans made up 52 percent, so the results have broad relevance, says Appel, who offers simple advice for anyone overwhelmed by conflicting messages about diet and health.

"Get back to the basics that most people already know," he says. "Don't drink sugar-sweetened drinks. Try to eat fruits, vegetables and whole grains. Try to avoid sweets, salt, and foods high in saturated and trans fats. People who follow these principles will reap the benefits."

Appel and Sacks led three earlier clinical trials that tested ways to reduce the risk of cardiovascular disease and diabetes, providing volunteers with carefully designed diets and measuring the effects on key health indicators. Their work established the health benefits of the DASH (Dietary Approaches to Stop Hypertension) and OmniHeart

Mediterranean-style diets.

**More information:** Paper: [DOI: 10.1001/jama.2014.16658](https://doi.org/10.1001/jama.2014.16658)

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