

Lower-carbon diets aren't just good for the planet, they're also healthier

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A new study examining the carbon footprint of what more than 16,000 Americans eat in a day has good news for environmentally conscious consumers: diets that are more climate-friendly are also healthier.

The study, conducted by researchers at the University of Michigan and Tulane University, is the first to compare the [climate impact](#) and nutritional value of U.S. diets using real-world data about what Americans say they are eating.

The paper is scheduled for online publication in the *American Journal of Clinical Nutrition* on Jan. 24.

"We hope these findings will help the public and policymakers recognize that improving [diet quality](#) can also help the environment," said study co-author Martin Heller of the U-M Center for Sustainable Systems at the School for Environment and Sustainability.

"People whose diets had a lower carbon footprint were eating less red meat and dairy—which contribute to a larger share of greenhouse gas emissions and are high in saturated fat—and consuming more [healthful foods](#) like poultry, whole grains and plant-based proteins," said lead author Diego Rose, a professor of nutrition and [food security](#) at Tulane University's School of Public Health and Tropical Medicine.

Because food production is a major contributor to climate change, the researchers sought to learn more about the impacts of Americans' daily dietary choices. They built an extensive database of the greenhouse gas emissions related to the production of foods and linked it to a large federal survey that asked people what they ate over a 24-hour period.

Researchers ranked diets by the amount of greenhouse gas emissions per 1,000 calories consumed and divided them into five equal groups. Then they rated the nutritional value of foods consumed in each [diet](#) using the U.S. Healthy Eating Index, a federal measure of diet quality, and compared the lowest to the highest-impact groups on this and other measures.

Americans in the lowest-carbon footprint group ate a healthier diet, as measured by this index. However, these diets also contained more of some low-[emission](#) items that aren't healthy, namely added sugars and refined grains. They also had lower amounts of important nutrients—such as iron, calcium and vitamin D—likely because of the lower intakes of meat and dairy.

Overall, diets in the lowest-impact group were healthier, but not on all measures. Rose says this is because diets are complex with many ingredients that each influence nutritional quality and environmental impacts.

"This explains the nuanced relationship we observed between these outcomes," he said.

Diets in the highest-impact group accounted for five times the emissions of those in the lowest-impact group. The highest-impact diets had greater quantities of meat (beef, veal, pork and game), dairy and solid fats per 1,000 calories than the low-impact diets.

Overall, the high-impact diets were more concentrated in total proteins and animal protein foods. A companion study the researchers released last year found that 20 percent of Americans accounted for almost half of U.S. diet-related greenhouse gas emissions.

"The good news here is that there are win-win solutions with diets that are healthier for people and planet," Heller said. "Big reductions in [food](#)-related emissions don't require eliminating foods entirely: moderate shifts away from red meat and toward beans, eggs or chicken can lead to significant improvements in both health and our diet's [carbon footprint](#)."

Provided by University of Michigan

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