

## Big, high-calorie meals after 6 pm may increase heart disease risk for Hispanics

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A big evening dinner shouldn't be on the menu. Eating the majority of a person's daily calories in the evening may lead to an increased risk of developing prediabetes and high blood pressure among Hispanic/Latino individuals, according to preliminary research to be presented in Chicago at the American Heart Association's Scientific Sessions 2018.

Researchers analyzed the meal timing of 12,708 participants, ages 18 to 76, from the Hispanic Community Health Study/Study of Latinos and found that the participants consumed, on average, 35.7 percent of their daily calories after 6 p.m. More than half of the study participants (56.6 percent) reported consuming more than 30 percent of their food intake after 6 p.m.

The results of the study, funded by the American Heart Association, showed that:

 Every one-percent increase in the number of calories eaten after 6 p.m. - about 20 calories in a 2,000-calorie daily diet—was associated with higher fasting glucose,

- insulin and insulin resistance, all of which are associated with an increased risk of diabetes.
- Eating 30 percent or more of a day's calories after 6 p.m. was associated with a 23 percent higher risk of developing high blood pressure and a 19 percent higher risk of becoming pre-diabetic compared to people who ate less than 30 percent of their calories after 6 p.m. and therefore consumed the bulk of their calories before 6 p.m.
- Nighttime eating was not associated with being overweight and obese or having central adiposity (fat).

"There is increasing evidence that when we eat is important, in addition to what we eat and how much we eat," said Nour Makarem, Ph.D., lead author of the study and a postdoctoral fellow at Columbia University Medical Center in New York.

"In our study we show that if you eat most of your calories before 6 p.m., you may have better cardiovascular health," she said. "Your meal timing matters and eating earlier in the day may be an important strategy to help lower the risk for heart disease."

The research is the first population-based study focused on U.S. Hispanics/Latinos to show that eating a larger percentage of daily calories in the evening may be associated with developing cardiovascular disease risk factors, particularly prediabetes and high blood pressure. But, Makarem said, it's also one of the early reports on meal timing and its association with heart disease risk factors within the U.S. population in general.

The study was cross-sectional in nature, which means participants' blood glucose levels, blood pressure, meal timing and other data were collected at one time without an opportunity for follow up. Researchers indicate future studies



should look at the long-term effects of meal timing on these risk factors for heart disease.

The American Heart Association recently released a scientific statement highlighting the need for population studies to clarify the association between meal timing and cardiometabolic risk and pay more attention to intake timing to reduce cardiovascular disease risk.

Provided by American Heart Association

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