

# Eating before 8:30 a.m. could reduce risk factors for type 2 diabetes

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People who start eating before 8:30 a.m. had lower blood sugar levels and less insulin resistance, which could reduce the risk of developing type 2 diabetes, according to a study presented virtually at ENDO 2021, the Endocrine Society's annual meeting.

"We found people who started eating earlier in the day had [lower blood sugar levels](#) and less [insulin resistance](#), regardless of whether they restricted their [food intake](#) to less than 10 hours a day or their food intake was spread over more than 13 hours daily," said lead researcher Marriam Ali, M.D., of Northwestern University in Chicago, Ill.

Insulin resistance occurs when the body doesn't respond as well to the insulin that the pancreas is producing and glucose is less able to enter the cells. People with insulin resistance may be at higher risk of developing type 2 diabetes. Both insulin resistance and high blood sugar levels affect a person's metabolism, the breaking down of food to its simpler components: proteins, carbohydrates (or sugars), and fats. Metabolic disorders such as diabetes occur when these

normal processes become disrupted.

"With a rise in [metabolic disorders](#) such as diabetes, we wanted to expand our understanding of nutritional strategies to aid in addressing this growing concern," Ali said. Previous studies have found that time-restricted eating, which consolidates eating to a shortened timeframe each day, has consistently demonstrated improvement in metabolic health, she noted. Her group wanted to see whether eating earlier in the day affected metabolic measures.

The researchers analyzed data from 10,575 adults who participated in the National Health and Nutrition Examination Survey. They divided participants into three groups depending on total duration of food intake: less than 10 hours, 10-13 hours, and more than 13 hours per day. They then created six subgroups based on eating duration start time (before or after 8:30 a.m.).

They analyzed this data to determine if eating duration and timing were associated with fasting blood sugar levels and estimated [insulin](#) resistance. Fasting blood [sugar](#) levels did not differ significantly among eating interval groups. Insulin resistance was higher with shorter eating interval duration, but lower across all groups with an eating start time before 8:30 a.m.

"These findings suggest that timing is more strongly associated with metabolic measures than duration, and support early eating strategies," Ali said.

Provided by The Endocrine Society

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