

Skipping breakfast may make obese women insulin resistant

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Overweight women who skip breakfast experience acute, or rapid-onset, insulin resistance, a condition that, when chronic, is a risk factor for diabetes, a new study finds. The results, which were presented Sunday at The Endocrine Society's 95th Annual Meeting in San Francisco, suggest that regularly skipping breakfast over time may lead to chronic insulin resistance and thus could increase an individual's risk for type 2 diabetes.

"Our study found that acute insulin resistance developed after only one day of skipping breakfast," said the study's lead author, Elizabeth Thomas, MD, an endocrinology fellow at the University of Colorado School of Medicine in Aurora.

In insulin resistance, a person requires more insulin to bring their glucose, or blood sugar, into a normal range, she explained.

Thomas and co-workers studied nine nondiabetic women, with an average age of 29, who were overweight or obese. The study took place on two days about a month apart. Subjects were randomly assigned to receive either breakfast or no breakfast at the first visit and the opposite at the second visit. Four hours later, all subjects ate the same standardized lunch at each visit. They had blood samples taken every 30 minutes after lunch for three hours to test their insulin and [glucose levels](#).

It is normal for glucose levels to rise after eating a meal, which then triggers [insulin production](#). The researchers found, however, that the

women's insulin and glucose levels after lunch were significantly higher on the day they skipped breakfast than on the day when participants ate breakfast. The higher levels demonstrated acute insulin resistance because of skipping breakfast, according to Thomas.

It was not clear if this "heightened metabolic response" was temporary or lasting, but it may contribute to the development of chronic insulin resistance, she said. When the body becomes permanently resistant to the effects of the hormone insulin, sugar builds up in the blood, which can lead to prediabetes and diabetes over time.

"This information should help health care providers in counseling patients as to why it is better to eat a healthy, balanced breakfast than to skip breakfast," Thomas said.

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Provided by The Endocrine Society

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