

# Obesity could set stage for heart issues in pregnancy

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(HealthDay)—Young pregnant women who are obese may face a higher

risk of changes in heart structure and function, a small new study suggests.

The changes seen might lead to a [pregnancy](#) complication known as [preeclampsia](#), according to the researchers. This disorder is a dangerous form of high [blood pressure](#) that can develop during the second half of pregnancy.

Preeclampsia can put both mother and baby at risk, according to the American College of Obstetricians and Gynecologists. Obesity is a known risk factor for preeclampsia.

"The main goal of this ongoing study is to follow [women](#) through pregnancy to detect whether there are differences in how an [obese woman](#)'s cardiovascular system changes during pregnancy that might explain their predisposition to preeclampsia and other cardiovascular complications," said the study's lead author Dr. Katherine Shreyder. She's a medical resident at Texas Tech University Health Sciences Center in Odessa.

"It seems that the [obese patients](#) will be more likely to deteriorate during pregnancy, because we started to observe higher blood pressure (although still in the normal range), an increase in [the size of an area of the left heart], and diminished pumping strength and relaxation," Shreyder said in an American Heart Association news release.

Obesity is defined as a [body mass index](#) (BMI) above 30. Body mass index is a rough estimate of a person's body fat based on height and weight. For someone who is 5-feet 9-inches tall, a weight over 203 pounds is considered obese, according to the U.S. Centers for Disease Control and Prevention.

The study included 11 women with a BMI of nearly 34. Their average

age was 30. For comparison, the researchers also recruited 13 women with a BMI of 25.5, which is considered slightly overweight. Their average age was 26 years.

All of the women were in the first trimester of a first-time pregnancy. Eighty-five percent of the women were Hispanic. None had any known heart conditions, [high blood pressure](#) or diabetes. None were carrying twins or triplets.

Compared to normal weight women, the researchers found that the [obese women](#) had a thicker left ventricle, which is the heart's main pumping chamber. Obese women also didn't pump blood as efficiently as normal weight women.

In addition, blood pressure was higher in the obese women—125/80 mm Hg, compared to 109/69 mm Hg, on average.

Dr. Robert Eckel, a spokesperson and past president of the American Heart Association, reviewed the study findings.

"Obese women have a higher risk of preeclampsia and other complications like gestational diabetes. There are lots of reasons why obesity and pregnancy might not be a perfect marriage," Eckel said.

But, he emphasized that this is a very small study with "modest differences" between the groups.

Eckel said these differences "may not play out in a larger sample." He added that he would have liked to have seen a control group of non-pregnant obese women to see how obesity affects pregnancy. It would also be interesting to see how the differences between obese and non-obese women change throughout pregnancy, he said.

Dr. James Catanese, chief of cardiology at Northern Westchester Hospital in Mount Kisco, N.Y., said this study was very interesting, especially because obesity and preeclampsia will be seen more in the future.

"This study already saw changes so early on in pregnancy from obesity, so it may help us find out months before who's going to get preeclampsia," he said.

Catanese noted that if these findings are replicated with a larger group of women, it might indicate a need to start blood pressure medications early in pregnancy.

The study findings were scheduled to be presented Wednesday at the American Heart Association meeting in San Antonio, Texas. Findings presented at meetings are typically considered preliminary until they've been published in a peer-reviewed journal.

**More information:** Robert Eckel, M.D., spokesperson and past president, American Heart Association, and professor of medicine, University of Colorado Denver Anschutz Medical Campus; James Catanese, M.D., chief of cardiology, Northern Westchester Hospital, Mount Kisco, N.Y.; Aug. 1, 2018, presentation, American Heart Association meeting, San Antonio

Learn more about obesity's effect on the heart from the [American Heart Association](#).

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