

# Expectant mother's elevated blood pressure raises child's risk of obesity

September 27 2017

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When expectant mothers have elevated blood pressure during pregnancy, it may raise their children's risk of developing childhood obesity, according to a study published in the Endocrine Society's *Journal of Clinical Endocrinology & Metabolism*.

Childhood obesity has become an international public health problem. An estimated 42 million [children](#) ages 5 and younger met the criteria for having obesity or being overweight, according to the World Health Organization's Commission on Ending Childhood Obesity.

"Our study is the first to demonstrate that among [pregnant women](#), elevated [blood pressure](#) is associated with a greater risk of overweight and obesity for their children," said the study's first author, Ju-Sheng Zheng, Ph.D., of Qingdao University in Qingdao, China, and the University of Cambridge in Cambridge, U.K. "The risk still existed for children of women who didn't have hypertension, but whose blood pressure during pregnancy was at the high end of the normal range."

The [prospective cohort study](#) examined [blood pressure levels](#) and weight in 88,406 mother-child pairs who participated in the Jiaxing Birth Cohort in southeastern China between 1999 and 2013. The researchers analyzed the women's blood pressure results from the three trimesters of pregnancy. During follow-up visits, the children were weighed when they were between the ages of 4 and 7.

Among women who were hypertensive during the second trimester, their

children were 49 percent more likely to be categorized as overweight or to have obesity compared to children of mothers who had lower blood pressure levels. Children of women with high blood pressure during the third trimester were 14 percent more likely to meet the criteria for overweight or obesity. The mother's body size prior to pregnancy did not affect the association.

"The results indicate that all pregnant women and their doctors should monitor and try to limit a substantial increase in blood pressure in mid-to-late pregnancy," Zheng said. "This may help reduce the likelihood of their children being affected by obesity."

**More information:** "Maternal Blood Pressure Rise During Pregnancy and Offspring Obesity Risk at 4-7 Years Old: The Jiaxing Birth Cohort," *Journal of Clinical Endocrinology & Metabolism* (2017). [DOI: 10.1210/jc.2017-01500](https://doi.org/10.1210/jc.2017-01500)

Provided by The Endocrine Society

Citation: Expectant mother's elevated blood pressure raises child's risk of obesity (2017, September 27) retrieved 25 April 2024 from <https://medicalxpress.com/news/2017-09-mother-elevated-blood-pressure-child.html>

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