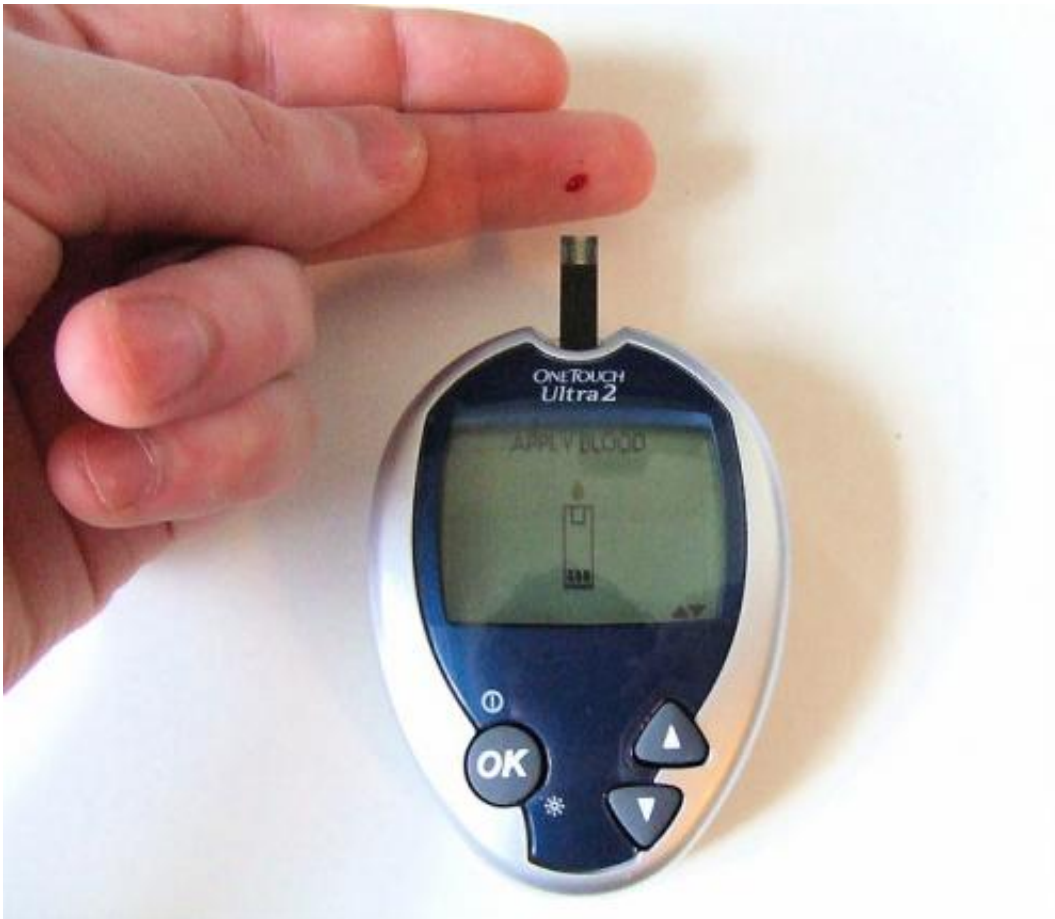


# Mothers of sons more likely to develop diabetes during pregnancy

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Blood glucose monitoring. Credit: Wikipedia

An unborn child's gender can affect the mother's risk of developing gestational diabetes or Type 2 diabetes later in life, according to a new

study published in the Endocrine Society's *Journal of Clinical Endocrinology & Metabolism*.

Gestational diabetes occurs when a pregnant woman has higher levels of glucose, or blood sugar, in the bloodstream than normal. Women who have been diagnosed with gestational diabetes face a greater risk of developing Type 2 diabetes in the future. As many as 9 percent of pregnant women develop gestational diabetes, according to the U.S. Centers for Disease Control and Prevention.

The study found women who were having sons were more likely to develop gestational diabetes than women who were pregnant with daughters.

"It is thought that gestational diabetes occurs because of a combination of underlying metabolic abnormalities in the mother and temporary metabolic changes that take place during pregnancy," said one of the study's authors, Baiju R. Shah, MD, PhD, of the University of Toronto, Sunnybrook Health Sciences Centre and the Institute for Clinical Evaluative Sciences in Toronto, Ontario, Canada. "Our findings suggest a male fetus leads to greater pregnancy-associated metabolic changes than a female fetus does."

The population-based retrospective cohort study used insurance records from Ontario to analyze the rate of diabetes cases among nearly 643,000 women who delivered their first child between April 2000 and March 2010. Only singleton births were included in the analysis.

While the researchers found women who were having boys were more likely to develop gestational diabetes, women who did develop gestational diabetes while they were pregnant with daughters were at higher risk of being diagnosed with Type 2 diabetes after pregnancy. This suggests these women had more serious underlying metabolic

abnormalities that made them more susceptible to [gestational diabetes](#), even without the added impact of a developing male fetus, Shah said.

"Public [health](#) programs often focus on how a pregnant mother's health, behavior and physiology can impact the health of her baby," Shah said.

"This study, however, suggests that the baby can help us better understand the health of the mother, and can help us predict her risks for future diseases."

**More information:** The study, "Fetal Sex and the Natural History of Maternal Risk of Diabetes during and after Pregnancy," will be published online at [press.endocrine.org/doi/10.1210/jc.2015-1763](http://press.endocrine.org/doi/10.1210/jc.2015-1763) , ahead of print.

Provided by The Endocrine Society

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