

Tracking blood sugar in pregnancy might lower heart defect risk for baby

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(HealthDay)—Increases in a woman's blood sugar levels during early

pregnancy may affect her baby's risk of congenital heart defects, a new study suggests.

Researchers led by Dr. Emmi Helle of Stanford University in California measured [blood sugar](#) levels of more than 19,000 [pregnant women](#) during their first trimester.

For every 10 milligrams per deciliter (mg/dL) increase in blood sugar, the risk of delivering a baby with a congenital heart defect rose about 8 percent, the study found.

The study couldn't prove cause-and-effect. But, the research team said it's the first study to show a link between a mother's blood sugar levels early in pregnancy and a baby's risk of heart defects.

The association between elevated blood sugar in [early pregnancy](#) and heart defect risk was greater than the predictive ability of what's known as the "[oral glucose tolerance](#) test," Helle's team said. That test is typically given between 24 and 28 weeks of pregnancy, which is long after the first trimester ends.

While more research is needed, the new findings "may have a profound effect on how pregnant women are screened and treated for diabetes during pregnancy," said Dr. Barry Goldberg, who reviewed the study. He's chief of pediatric cardiology at Northwell Health's Southside Hospital in Bay Shore, N.Y.

"Congenital [heart disease](#) occurs when the heart fails to develop normally during fetal life," he explained. "It is the most common birth defect affecting approximately 8 out of every 1000 births, or about 1 percent."

Goldberg said the oral glucose tolerance test is the standard means of

alerting doctors to the possibility of gestational diabetes—diabetes arising during a pregnancy.

"If she is deemed to have gestational diabetes, she may be treated with diet, medication and, in some cases, insulin," Goldberg explained.

"However, despite 'good' control of the woman's [blood sugar level](#), the risk to the fetus' heart remains increased," he added.

The new study suggests that "a pregnant woman's blood sugar levels need to be monitored and treated earlier in pregnancy," according to Goldberg. "Earlier and more aggressive management of blood sugar may result in a dramatic decrease in the incidence of congenital heart disease and save the lives of countless newborn babies," he said.

Dr. Mitchell Kramer is chair of obstetrics and gynecology at Huntington Hospital in Huntington, N.Y. He agreed that "maternal diabetes in early pregnancy has long been identified as a significant risk for the development of congenital heart disease in offspring."

The new study helps "confirm" that link, Kramer said. "Though more studies are needed, this study clearly calls for careful blood sugar control prior to pregnancy and during early [pregnancy](#) to decrease the likelihood of the development of [congenital heart disease](#) in the newborn," he said.

The research was to be presented Monday at the American Heart Association's annual meeting, in New Orleans. Research presented at medical meetings is typically considered preliminary until published in a peer-reviewed journal.

More information: The U.S. National Heart, Lung, and Blood Institute has more on [congenital heart defects](#).

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