

New study reveals pregnant people who deliver large babies are at increased risk of developing diabetes later in life

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In a new study to be presented today at the Society for Maternal-Fetal Medicine's (SMFM) annual meeting, The Pregnancy Meeting—and



published in the *American Journal of Obstetrics and Gynecology*—researchers will unveil findings that suggest pregnant people who do not have diabetes but deliver a large-for-gestational age baby are at an increased risk of developing prediabetes or Type 2 diabetes 10-14 years later.

Studies show that diabetes in <u>pregnancy</u>—also known as gestational diabetes—puts a pregnant person at greater risk of developing Type 2 diabetes later in life. Gestational diabetes is also a common cause of babies who are large-for-gestational age (LGA). LGA is defined as infants who weigh more than 90 percent of all babies of the same gestational age. LGA babies are more likely to be admitted to the neonatal intensive care unit and develop <u>health complications</u> later in life, including obesity and Type 2 diabetes themselves.

What has not been studied, until now, is whether someone who does not have gestational diabetes but gives birth to an LGA baby is also at risk of developing diabetes later in life.

In a new study to be presented today at the Society for Maternal-Fetal Medicine's (SMFM) annual meeting, The Pregnancy Meeting— and published in the *American Journal of Obstetrics & Gynecology*—researchers will unveil findings that suggest pregnant people who do not have diabetes but deliver a large-for-gestational age baby are at an increased risk of developing prediabetes or Type 2 diabetes 10-14 years later.

Researchers used data from the Hyperglycemia and Adverse Pregnancy Outcome (HAPO) Follow-up Study. HAPO, an observational study, examined glucose tolerance in a large, multi-national, racially diverse cohort in their third trimester of pregnancy; the Follow-up Study looked at the association between gestational diabetes and the long-term health outcomes of pregnant people and their children.



Among the 4,025 individuals who did not have gestational diabetes, 13 percent (535 people) had an LGA infant; 8 percent (314 people) had a small-for-gestational age (SGA) infant; and 79 percent (3,176 people) had an average-for-gestational age (AGA) or normally grown infant.

Data revealed that 10 to 14 years after giving birth, 20 percent (791 people) were diagnosed with prediabetes or diabetes and that the frequency of prediabetes or diabetes was higher among people who had an LGA birth (24.8 percent) compared to those who had an SGA birth (15.4 percent) or even more importantly, those who had an AGA birth (19.7 percent). The increased risk of diabetes and prediabetes with a LGA infant was the case even after researchers adjusted for risk factors for developing Type 2 diabetes, such as age, obesity, high blood pressure, and family history of diabetes.

"So often in clinical practice when we see big babies and the individual doesn't have gestational diabetes, we do not talk about the health consequences for the mother later in life," says the study's lead author Kartik K. Venkatesh, MD, Ph.D., a maternal-fetal medicine subspecialist and assistant professor of obstetrics and gynecology and assistant professor of epidemiology at The Ohio State University Wexner Medical Center in Columbus. "But this research suggests there may also be health consequences for the pregnant person even without gestational diabetes when they have a larger than normal sized infant. That's why it's so important to follow large groups of people and their babies, regardless of whether they had gestational diabetes or not, over a long period of time.

"The real implication of this research is that we need to stop thinking of pregnancy care as episodic care by making these connections between pregnancy and long-term health outcomes in mothers and children in order to see the bigger picture."

More information: www.eventscribe.net/2023/smfm2023/



Kartik Kailas Venkatesh et al, Association of large-for-gestational age birth and prediabetes/diabetes 10-14 years' postpartum in the HAPO follow-up study, *American Journal of Obstetrics and Gynecology* (2023). DOI: 10.1016/j.ajog.2022.11.097

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