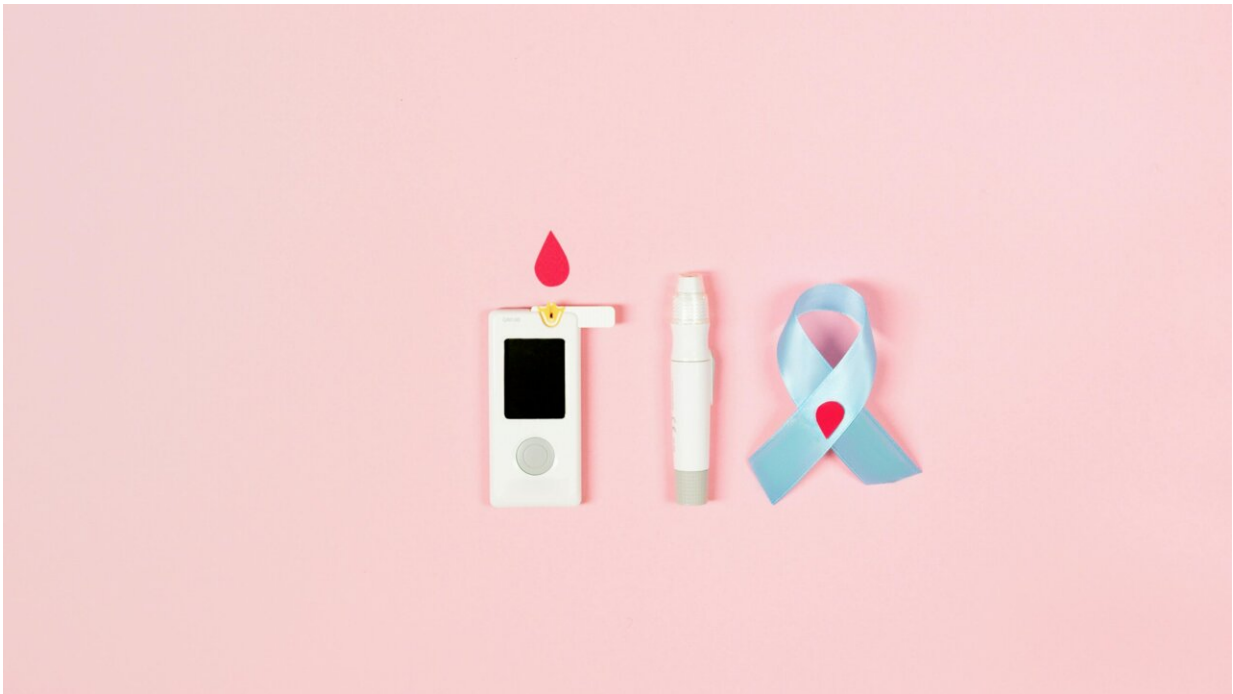


No need to change the diagnostic criteria for gestational diabetes in Finland, says study

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Credit: Artem Podrez from Pexels

Gestational diabetes is one of the most common pregnancy-related disorders, affecting approximately one-fifth of mothers giving birth in Finland, in total about 9,000 women annually. The most significant consequence of gestational diabetes is fetal macrosomia, or excessive fetal growth, which increases the risk of birth-related complications.

The diagnosis of [gestational diabetes](#) is established through a glucose tolerance test, and the [diagnostic criteria](#) vary between countries. In Finland, the [threshold](#) values for gestational diabetes are slightly higher than those in most international recommendations.

Researchers from the University of Oulu, Finland, investigated the significance of different threshold values for diagnosing gestational diabetes and explored whether newborn complications increase if the mother's [blood glucose](#) is mildly elevated during pregnancy.

Based on the study, [published](#) in the journal *BMC Pregnancy and Childbirth*, the diagnostic thresholds used in Finland for gestational diabetes are appropriate, and there is no reason to change them.

Examining the significance of diagnostic thresholds for gestational diabetes is important not only for preventing complications associated with the condition but also for avoiding the harm and costs resulting from overdiagnosis. Even slight changes in threshold values can significantly affect the prevalence of the disease.

"Lowering the threshold values used in Finland to match international recommendations would result in the diagnosis of gestational diabetes in nearly one-third of pregnant women instead of one-fifth, without convincingly demonstrating any benefits," explains Dr. Elina Keikkala, a researcher and physician.

No differences were observed in the occurrence of gestational diabetes-related issues, such as low infant blood glucose or birth injuries, between newborns whose mothers had mildly elevated glucose tolerance test results according to international criteria and those whose mothers had normal test results.

Previous studies on this topic have linked a mother's mildly elevated

blood glucose to a higher birth weight and increased risk of cesarean section. Most of these studies have been based on the observation that a mother's blood glucose level has a linear relationship with increased newborn issues, making it challenging to establish a definitive threshold value.

However, this comprehensive study, which relied on data from nearly 5,000 mothers and their newborns collected from six Finnish maternity hospitals in 2009, demonstrated that infants do not experience clinically significant problems due to their mother's mildly elevated blood glucose, even though their [birth weight](#) may be slightly higher compared to infants of mothers with normal glucose tolerance test results.

More information: Kaisa Kariniemi et al, Neonatal outcomes according to different glucose threshold values in gestational diabetes: a register-based study, *BMC Pregnancy and Childbirth* (2024). [DOI: 10.1186/s12884-024-06473-4](#)

Provided by University of Oulu

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