

Maternal glucose in pregnancy tied to child's glucose outcomes

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(HealthDay)—In utero exposure to higher levels of maternal glucose is

associated with higher glucose levels and insulin resistance during childhood, according to a study published online Jan. 7 in *Diabetes Care*.

Denise M. Scholtens, Ph.D., from the Northwestern University Feinberg School of Medicine in Chicago, and colleagues conducted follow-up with the Hyperglycemia and Adverse Pregnancy Outcome cohort (4,160 children ages 10 to 14 years whose mothers had a 75-g oral [glucose](#) tolerance test [OGTT] at 28 weeks of gestation).

The researchers found that maternal fasting plasma glucose (FPG) was positively associated with [child](#) FPG and glycated hemoglobin (A1C) and that maternal one-hour and two-hour PG were positively associated with child fasting; 30-minute, one-hour, and two-hour PG; and A1C. There was an inverse association between maternal FPG, one-hour PG, and two-hour PG and [insulin sensitivity](#), while one-hour and two-hour PG were inversely associated with the disposition index. Only maternal FPG was associated with child impaired fasting glucose (IFG), while only maternal one-hour and two-hour PG were associated with child impaired glucose tolerance (IGT). All associations were independent of maternal and child body mass index. Across increasing categories of maternal glucose, frequencies of child IFG and IGT and timed PG measures and A1C were higher, while insulin sensitivity and the disposition index decreased.

"Although the underlying causes for the increasing prevalence of type 2 diabetes in [children](#) are complex, these findings suggest that maternal glycemia may also contribute," the authors write.

More information: [Abstract/Full Text \(subscription or payment may be required\)](#)

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