

# Second trimester lipids can ID gestational diabetes

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(HealthDay)—Early second trimester lipids can identify maternal

gestational diabetes mellitus (GDM), according to a study published online Oct. 4 in *Diabetes Care*.

Liangjian Lu, from the University of Cambridge in the United Kingdom, and colleagues conducted a prospective study involving 817 pregnant women (discovery cohort, 200 women; validation cohort, 617 women) who provided an early second trimester serum sample and underwent oral glucose tolerance test (OGTT) at week 28 of gestation. Lipids were measured using direct infusion mass spectrometry in the discovery cohort, and correlated with OGTT results. Candidate lipid biomarkers were identified using variable importance in projection (VIP) scores; biomarkers were then measured in the validation cohort.

The researchers observed a correlation for early second trimester lipidomic variation with one-hour post-load glucose levels, but no correlation with fasting [plasma glucose levels](#). Ten of the 13 lipid species identified by VIP scores had nominally significant associations with post-load glucose levels. Five of these lipids had significant associations with post-load glucose levels in the validation cohort; the associations were independent of [maternal age](#) and body mass index (BMI). Four of these biomarkers were also associated with maternal GDM; these four lipids had moderate ability to predict GDM (area under the curve, 0.71).

"Specific early second trimester lipid biomarkers can predict maternal GDM status independent of maternal age and BMI, potentially enhancing risk factor-based screening," the authors write.

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

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