

# Low adiponectin in first trimester linked to GDM

February 1 2013

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Low adiponectin levels during the first trimester of pregnancy correlate with a higher level of insulin resistance and an increased risk of developing gestational diabetes mellitus, according to research published online Jan. 8 in *Diabetes Care*.

(HealthDay)—Low adiponectin levels during the first trimester of pregnancy correlate with a higher level of insulin resistance and an increased risk of developing gestational diabetes mellitus (GDM), according to research published online Jan. 8 in *Diabetes Care*.

Marilyn Lacroix, of the University of Sherbrooke in Canada, and colleagues conducted a prospective study to examine the correlation between adiponectin levels, measured in 445 pregnant women during the first and second trimesters, and (1) the risk of developing GDM and (2) insulin resistance/sensitivity,  $\beta$ -cell function, and compensation indices.

The researchers found that 38 women developed GDM. For these

women, first trimester adiponectin levels were significantly lower than for women with normal [glucose tolerance](#). After adjustment for [body mass index](#) and glycated hemoglobin, the odds of developing GDM were significantly increased with lower adiponectin levels in the first trimester (odds ratio, 1.12 for each 1 µg/mL decrease in adiponectin). Adiponectin levels in the first and second trimester were significantly linked to insulin resistance and insulin sensitivity, but were not associated with  $\beta$ -cell function or [insulin secretion](#).

"Low adiponectin levels already present at first trimester are likely a reflection of preexisting insulin resistance, which predisposes those women to develop GDM later in pregnancy if they have an insufficient  $\beta$ -cell capacity to respond to the increased demand related to pregnancy," the authors write. "We hope that better understanding of the pathophysiology of [insulin resistance](#) during pregnancy and of pathways involved in GDM development will lead to adapted preventive approaches to improve the health of mothers and offspring in the future."

**More information:** [Abstract](#)  
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