

Gestational diabetes may predispose to postpartum depression symptoms

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Mothers diagnosed with gestational diabetes mellitus have an elevated risk of developing postpartum depression symptoms and type 2 diabetes later in life. Credit: University of Eastern Finland

Mothers diagnosed with gestational diabetes mellitus (GDM) have an elevated risk of developing postpartum depression symptoms, according to a new Finnish study.

Gestational [diabetes](#) mellitus refers to impaired glucose metabolism during pregnancy. Often,

mothers with GDM have too high blood glucose levels, and this increases the risk of various adverse effects on the fetus. Moreover, GDM increases the mother's risk of developing type 2 diabetes later in life.

Postpartum [depression](#) symptoms are experienced by 10–15 per cent of mothers after childbirth. The newly published study used the Edinburgh Postnatal Depression Scale to assess depression symptoms during the third trimester of pregnancy and eight weeks after delivery.

Postpartum depression symptoms were observed in 16 per cent of mothers diagnosed with GDM, and in approximately nine per cent of mothers without GDM. The researchers used statistical methods to adjust the results for other factors contributing to the risk of GDM and postpartum depression symptoms, such as maternal age at delivery, body mass index and depression symptoms experienced during pregnancy. The findings were reported in *Journal of Affective Disorders*.

Conducted by the University of Eastern Finland, the University of Helsinki, Kuopio University Hospital and the Finnish National Institute for Health and Welfare, the study pooled data from Kuopio Birth Cohort, which is an ongoing follow-up of women from the beginning of their pregnancy. Altogether, 1,066 mothers with no previous mental health issues were selected for the study.

"Psychological mechanisms may partially explain the observed association between GDM and postpartum depression symptoms," says Doctoral Student Aleksi Ruohomäki, the first author of the study. "Being diagnosed during [pregnancy](#) with a disease that might harm the fetus can be a stressful experience, which may predispose to depression symptoms."

"Furthermore, physiological mechanisms may also contribute to this association," adds Dr. Soili Lehto,

Group Leader of Kuopio Birth Cohort's mental well-being section. "Impaired glucose metabolism may increase cytokine mediated low-grade inflammation, which has also been associated with depression. Previous studies have also shown that type 2 diabetes predisposes to depression, and depression to type 2 diabetes".

Research evidence is scarce regarding the possible effects of GDM on [postpartum](#) depression symptoms, and the new Finnish study is an important contribution to this emerging area of research.

More information: Aleksi Ruohomäki et al. The association between gestational diabetes mellitus and postpartum depressive symptomatology: A prospective cohort study, *Journal of Affective Disorders* (2018). [DOI: 10.1016/j.jad.2018.08.070](https://doi.org/10.1016/j.jad.2018.08.070)

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