

# Bariatric surgery can lead to premature birth

12 November 2013

Babies born of women who have undergone bariatric (weight-loss) surgery are more likely to be premature and to be small for gestational age, according to a large registry study carried out at Karolinska Institutet in Sweden and published in the *BMJ*. The researchers believe that these pregnancies should be considered risk pregnancies and that prenatal care should monitor them extra carefully.

The number of bariatric operations has increased dramatically in recent years. Most of these operations are performed on [women](#), and as a result the number of [babies](#) born to women with a history of bariatric [surgery](#) is also increasing. Researchers at Karolinska Institutet have now examined how the operation affects pregnancy. The study, which is the most extensive ever done in the field, was based on data from the Swedish Medical Birth Register and the Patient Register.

The study compared over 2,500 babies born between 1992 and 2009 of women who had previously undergone bariatric surgery with 12,500 babies born to mothers who had not. The pregnancies were matched individually, so that the mothers' BMI, age, educational background, smoking habits, and previous births were comparable in both groups.

The researchers found that infants of women with bariatric surgery history have lower weights at delivery. 5.2 per cent of them were small for [gestational age](#) and were at least two standard deviations below the normal as opposed to only 3.0 per cent in the control group. Moreover, 4.2 per cent of the babies of mothers with bariatric surgery history were large for gestational age, compared to 7.3 per cent of the control group, and more were born prematurely: 9.7 per cent before the 37th week, compared with 6.1 per cent of the [control group](#). The researchers also found no difference regarding stillbirth or neonatal death (within the first 27 days) between the two groups.

varying weights depending on whether or not they had undergone bariatric surgery, so there is some kind of association between the two," says Dr Olof Stephansson, obstetrician and Associate Professor at the Clinical Epidemiology Unit at Karolinska Institutet. "The mechanism behind how surgery influences [fetal growth](#) we don't yet know, but we do know that people who have bariatric surgery are at increased risk of micronutrient deficiencies."

The researchers think that women with bariatric surgery history should be considered a risk group when pregnant, which means that they should be paid particularly close prenatal attention, and have extra ultrasound to check fetal growth, for example, or be given special dietary supplement recommendations. The researchers also point out that [bariatric surgery](#) has numerous benefits for mothers, such as lowering the risk of diabetes, cardiovascular disease, cancer and stroke. Furthermore, untreated obesity is a known risk factor for both mother and baby during pregnancy and childbirth.

**More information:** 'Perinatal outcomes after bariatric surgery: nationwide population-based matched cohort study', Nathalie Roos, Martin Neovius, Sven Cnattingius, Ylva Trolle Lagerros, Maria Sääf, Fredrik Granath, and Olof Stephansson, *British Medical Journal (BMJ)*, online 12 November 2013.

Provided by Karolinska Institutet

"Mothers with the same BMI gave birth to babies of

APA citation: Bariatric surgery can lead to premature birth (2013, November 12) retrieved 28 November 2022 from <https://medicalxpress.com/news/2013-11-bariatric-surgery-premature-birth.html>

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