

# Increased risk of birth asphyxia in babies born to overweight and obese women

20 May 2014

The risk of experiencing an oxygen deficit at birth (birth asphyxia) increases for babies born to women who are overweight or obese, according to a study by Swedish and US researchers published in this week's *PLOS Medicine*.

These findings are important given the high prevalence of [overweight and obesity](#) worldwide, and suggest that preventing women of reproductive age from becoming overweight or obese is important to the health of their children.

The authors, led by Dr. Martina Persson from the Swedish medical university Karolinska Institutet, reached these conclusions by using information from the Swedish medical birth registry (a database including nearly all the births occurring in Sweden since 1973) for all births (of single babies) that took place between 1992 to 2010—comprising over 1.7 million births.

They found that although mothers with normal weight gave birth to the majority of infants with the lowest Apgar scores (a measure of oxygen deficit at birth), the proportion of low Apgar scores was greater in babies of overweight and [obese mothers](#). Overall, the authors found that the rates of low Apgar scores increased with maternal Body Mass Index (BMI): overweight (BMI 25.0–29.9) was associated with a 55% increased risk of low Apgar scores at 5 minutes; obesity grade I (BMI 30–34.9) and grade II (BMI 35.0–39.9) was associated with a 2-fold increased risk; and obesity grade ?II (BMI ? 40.0) was associated with a more than 3-fold increase in risk.

Although this study is limited by the lack of data on the effects of clinical interventions and neonatal resuscitation efforts that may have been performed at the time of birth, these findings suggest that early detection of perinatal asphyxia is particularly relevant among infants of overweight and [obese women](#) although more studies are necessary to confirm these results in other populations.

The authors say: "this population-based cohort study from Sweden clearly demonstrates increased risks of perinatal asphyxia-related complications with increasing maternal [Body Mass Index] in infants delivered at term."

They continue: "Prevention of [overweight](#) and obesity in women of reproductive age is an important strategy to improve perinatal health."

**More information:** Persson M, Johansson S, Villamor E, Cnattingius S (2014) Maternal Overweight and Obesity and Risks of Severe Birth-Asphyxia-Related Complications in Term Infants: A Population-Based Cohort Study in Sweden. *PLoS Med* 11(5): e1001648. [DOI: 10.1371/journal.pmed.1001648](#)

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APA citation: Increased risk of birth asphyxia in babies born to overweight and obese women (2014, May 20) retrieved 15 June 2022 from <https://medicalxpress.com/news/2014-05-birth-asphyxia-babies-born-overweight.html>

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