

# Shorter-time between bariatric surgery and childbirth associated with increased risk of complication

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Infants who were born less than two years after a mother's bariatric surgery had higher risks for prematurity, neonatal intensive care unit admission, and small for gestational age status compared with longer intervals between bariatric surgery and childbirth, according to a study published online by *JAMA Surgery*.

Because bariatric operations can result in nutritional deficiencies in the mother, there has been some concern that surgery may adversely influence fetal development and infant outcomes, such as [neonatal intensive care](#) unit (NICU) admissions and congenital malformations, which are likely to be affected by maternal metabolic and nutritional derangements. Although some preliminary studies have investigated these outcomes, conclusions are conflicting and limited by small sample sizes. In addition, a "safe" interval between bariatric surgery and childbirth remains undefined.

Brodie Parent, M.D., of the University of Washington Medical Center, Seattle, and colleagues examined the association of bariatric surgery with subsequent perinatal outcomes and the operation-to-birth (OTB) interval with perinatal risks. Data were collected from birth certificates and maternally linked hospital discharge data from Washington State. Participants were mothers who had bariatric surgery prior to childbirth (postoperative mothers [POMs]) and their infants (n = 1,859) and a population-based random sample of mothers without operations

(nonoperative mothers [NOMs]) and their infants matched by delivery year (n = 8,437).

A total of 10,296 individuals were included in the analyses. In the overall study group, the median age was 29 years. Compared with infants from NOMS, infants from POMs had a higher risk for prematurity (14 percent vs 8.6 percent), NICU admission (15 percent vs 11 percent), small for gestational age (SGA) status (13 percent vs 8.9 percent), and low Apgar score (a combined measure of neonatal activity and vital signs, determined by the obstetrician 5 minutes after birth) (18 percent vs 15 percent).

Compared with infants from mothers with greater than a 4-year OTB interval, infants from mothers with less than a 2-year interval had higher risks for prematurity (12 percent vs 17 percent), NICU admission (12 percent vs 18 percent), and SGA status (9 percent vs 13 percent).

"This study underscores the higher risk status of this population and may indicate that a recently postoperative mother with underlying nutritional, metabolic, and physiological changes is at an elevated risk for perinatal complications. These findings could help inform health care professionals and postoperative women of childbearing age about the optimal timing between [bariatric surgery](#) and conception," the authors write.

"Undoubtedly, bariatric operations result in many health benefits for morbidly obese women of childbearing age and reduce obesity-related obstetrical complications. Findings from this study should not deter bariatric surgeons from offering such therapy to this population. Although we found evidence for some increased perinatal complications among POMs, our results indicate that these risks attenuate over time and approach the baseline population risk within 2 to 3 years. In other words, after 2 to 3 years, mothers appear to reap the benefits of a weight

loss operation without increasing fetal risk."

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