

Women with anemia twice as likely to need transfusion after cesarean delivery

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Pregnant women with anemia are twice as likely to need blood transfusions after a cesarean delivery, as those without the condition, according to a study being presented at the Anesthesiology 2019 annual meeting. Yet most pregnant women aren't screened early in their pregnancy for iron deficiency, which can lead to anemia.

Anemia, a deficiency in hemoglobin or [red blood cells](#) that carry oxygen throughout the body, can cause serious problems in pregnant [women](#), including [postpartum hemorrhage](#) (excessive bleeding after childbirth) - a major cause of maternal mortality and a concern in the U.S. The U.S. has the highest rate of maternal mortality among developed countries—increasing 56% between 1990 and 2015. Severe [iron](#) deficiency is the most common cause of anemia in pregnant women. Women who deliver their babies by cesarean are at high risk of postpartum hemorrhage.

But while all [pregnant women](#) should be screened for anemia during their first prenatal visit as recommended by the United States Preventive Services Task Force and American College of Obstetricians and Gynecologists, they typically are not checked for iron deficiency, which is a separate blood test.

Yet many women who are iron deficient, but not anemic, early in [pregnancy](#) become anemic as their increasing need for iron grows during pregnancy. Their anemia often isn't discovered until late in pregnancy, becoming more difficult to treat quickly and efficiently.

"If screening for iron deficiency is not done in all women at the first prenatal visit, many who are iron deficient, but not yet anemic, will not be identified," said Ghislaine Echevarria, M.D., M.Sc., lead author and assistant professor of anesthesiology, perioperative care and pain medicine at NYU School of Medicine, New York. "Our study

suggests we should consider screening all women for iron deficiency early in their pregnancies. For those found to be deficient, the solution is simple—prescribe an iron supplement, a safe treatment that is potentially beneficial to both mother and baby, which may result in fewer blood transfusions after cesarean deliveries."

In the study, researchers analyzed a prospective clinical registry as well as the [electronic health records](#) of 5,527 women who had a planned cesarean delivery during a 4-½-year period and determined 1,276 (23%) tested positive for anemia when they were admitted to the hospital for delivery. Of the women who had anemia, 107 (8.4%) had a [blood transfusion](#) vs. 187 of the 4,251 women who didn't have anemia (4.4%), meaning the adjusted odds of receiving a transfusion were two times greater for women who had anemia upon hospital admission.

Screening women for iron deficiency early in their pregnancy can help prevent complications during delivery, including those associated with blood transfusions, said Dr. Echevarria. Women who have iron deficiency can be prescribed oral iron supplements. Those who can't tolerate the side effects of oral supplements (such as constipation and nausea) can be provided intravenous (IV) therapy later in the pregnancy, she said.

"Screening all women for iron deficiency might improve the patient's outcomes and hospital experience, as well as save costs related to transfusions," said Dr. Echevarria.

In addition to postpartum hemorrhage, [anemia](#) also increases the risk of other life-threatening conditions, such as pre-eclampsia, placental abruption and cardiac failure. Women who are anemic are twice as likely to go into labor early and three times as likely to deliver a baby with low birth weight. Further, their babies are more likely to be iron deficient and experience delayed growth and

development as well as behavior abnormalities, even after they are given iron. Anemia also causes fatigue and impaired thinking in the mother, which can negatively affect mother-baby bonding.

Provided by American Society of Anesthesiologists

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