

Maternal obesity puts infants at risk

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Babies born to obese mothers are at risk for iron deficiency, which could affect infant brain development, according to a study to be presented Saturday, April 30, at the Pediatric Academic Societies (PAS) annual meeting in Denver.

In nonpregnant adults, obesity-related inflammation hinders the transport of iron through the intestine, increasing the risk of [iron deficiency](#) anemia. When a woman is pregnant, iron is transferred through the intestine to the placenta, but it is not known how maternal obesity affects newborn iron status. Fetal iron status is important because 50 percent of the iron needed for infant growth is obtained before birth.

In this study, researchers studied 281 mother/newborn pairs. The women's [body mass index](#) was calculated before delivery, and a score of 30 or above was defined as obese. Investigators also determined infants' iron level by analyzing umbilical cord blood.

Results showed evidence of impaired iron status in newborns of women who were obese.

"These findings are important because iron deficiency in infancy is associated with impaired brain development, and we should understand all [risk factors](#) for iron deficiency in infancy," said Pamela J. Kling, MD, FAAP, principal investigator and associate professor of pediatrics/neonatology at the University of Wisconsin-Madison.

The researchers are investigating why obesity during pregnancy is a risk

factor for poorer iron status at birth, Dr. Kling said.

"In nonpregnant adults, obesity has been linked to poorer dietary [iron absorption](#) and to diabetes, so both factors may contribute," she said. "Additionally, the link may be due to larger fetuses, because obesity during pregnancy results in larger [fetuses](#), and iron needs are proportional to fetal size."

The study results also have important implications because the prevalence of obesity in women of childbearing age is increasing.

More information: To view the abstract, go to www.abstracts2view.com/pas/view.php?nu=PAS11L1_535

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