

Obesity in pregnancy hinders women's ability to fight infection

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Pregnant women who are obese are less able to fight infections than lean women, which could affect their baby's health after birth and later in life, according to research to be presented Sunday, May 1, at the Pediatric Academic Societies (PAS) annual meeting in Denver.

"[Women](#) who are obese before [pregnancy](#) have critical differences in their immune function during pregnancy compared to normal weight women, which has negative consequences for both mother and baby," said Sarbattama Sen, MD, lead author of the study and a researcher in the Mother Infant Research Institute at Tufts Medical Center and Floating Hospital for Children in Boston.

Obesity in pregnancy has been associated with an increase in infections such as chorioamnionitis, a condition in which the membranes surrounding the fetus and the amniotic fluid are infected. This can have serious consequences for both the mother and the baby.

Dr. Sen and colleagues from the Jean Mayer USDA Human Nutrition Research Center on Aging at Tufts University sought to determine whether obesity in pregnancy changes women's ability to fight off infections. They drew blood from 30 women who were 24-28 weeks pregnant to measure the presence of different cells and cell proteins that help fight infections. Fifteen women were obese before they became pregnant (body mass index higher than 30), and fifteen women had a normal [body mass index](#) (20-25).

Results showed that obese women had fewer CD8+ (cytotoxic T) cells and [natural killer cells](#), which help fight infection, compared to lean women. In addition, obese pregnant women's ability to produce cells to fight infection was impaired.

"Maternal obesity has consequences for the mother and baby, which we are only beginning to understand," Dr. Sen concluded. "As the numbers of obese women of reproductive age increase, it is critical to understand the repercussions of this disease for future generations."

More information: To view the abstract, go to [www.abstracts2view.com/pas/viewphp?nu=PAS11L1_1406](http://www.abstracts2view.com/pas/view...php?nu=PAS11L1_1406)

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