

Prepregnancy Obesity Tied to Poor Birth Outcomes

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NEW YORK — Obesity in prepregnancy and early pregnancy is associated with obstetric complications and birth defects, experts said at the annual meeting of the Diabetes in Pregnancy Study Group of North America.

The risks include obstetric, maternal, fetal, and newborn complications, said Dr. Barak Rosenn, director of obstetrics and maternal-fetal medicine at St. Luke's-Roosevelt Hospital Center in New York. "The more obese you are, the higher the risk for these perinatal complications," he said.

Growing evidence culled from studies conducted around the world demonstrate that both obesity and overweight lead to an increased risk for complications. For example,

Morbidly obese women were at increased risk for complications including preeclampsia, C-section, shoulder dystocia, and early neonatal death.

a study of more than 800,000 pregnant women with singleton pregnancies in Sweden showed that women who were morbidly obese—those with a body mass index of 40 or greater—at their first prenatal visit had significantly worse

outcomes, compared with normal weight women—those with a BMI of 26 or less.

Morbidly obese women in the study were at an increased risk for several complications, including preeclampsia, stillbirth, cesarean delivery, instrumental delivery, shoulder dystocia, meconium aspiration, early neonatal death, and large-for-gestational-age babies. The associations were similar for women with BMIs between 35.1 and 40, but to a lesser degree (*Obstet. Gynecol.* 2004;103:219-24).

A similar study among more than 280,000 pregnant women with singleton pregnancies in London found that overweight women (BMI 25-29.9) and obese women (BMI 30 or greater) were at an increased risk of poor outcomes, including preeclampsia, emergency cesarean, wound infection, genital tract infection, and large-for-gestational-age babies (*Int. J. Obes. Relat. Metab. Disord.* 2001;25:1175-82).

"We see that the increased risk is already evident in overweight women, not just in women who are obese," Dr. Rosenn said.

Overall, the percentage of complications attributed to obesity in the population has been rising along with the overall obesity epidemic. For example, the percentage of gestational diabetes attributed to obesity has risen from 12.8% during 1980-1984 to 29.6% during 1995-1999. And the percentage of large-for-gestational-age babies attributed to the mother's obesity increased from 16.2% to 25.7% in the same period of time (*Am. J. Obstet. Gynecol.* 2001;185:845-9).

But the risks associated with obesity in pregnancy don't stop at obstetric complications, according to Dr. E. Albert Reece,

dean of the University of Maryland School of Medicine and vice president for medical affairs at the University of Maryland in Baltimore. Obese pregnant women also are at higher risk for giving birth to babies with congenital anomalies, he said.

A population-based, case-control study conducted by researchers from the Centers for Disease Control and Prevention in Atlanta found that infants born to obese women had higher risks for birth defects—including spina bifida, omphalocele, heart

defects, and multiple anomalies—than did infants born to normal-weight women (BMI 18.5-24.9). Women who had preexisting diabetes were not included in the study (*Pediatrics* 2003;111:1152-8).

Several other studies also have shown that obesity in prepregnancy is associated with a slightly increased risk for neural tube defects, Dr. Reece said. The evidence to date also indicates that obesity as a risk factor for birth defects is independent of factors such as diabetes, race/ethnicity,

and the presence of folic acid and other nutrients in the diet, he added.

But despite growing evidence linking obesity to obstetric complications and birth defects, researchers still do not understand why obesity increases these risks. There are also unanswered questions about whether maternal metabolic status can be modified to decrease maternal risk and whether the intrauterine environment can be modified to decrease the fetal risk, Dr. Rosenn said. ■

