

Obesity increases pregnancy risks for mothers and their babies



Women who enter pregnancy overweight or obese are at higher risk for serious health complications — including gestational diabetes and hypertension, preeclampsia, miscarriage, preterm delivery, stillbirths and cesarean births — and are putting their babies' health at risk as well.

Within the UCLA Department of Obstetrics and Gynecology, a team of high-risk-pregnancy specialists provides expert care to women at every stage, from preconception planning and prenatal care to labor and delivery and postpartum health.

Before pregnancy

Only 45 percent of women in the United States are at a healthy weight before pregnancy, according to the Centers for Disease Control and Prevention. (Overweight is defined as a body mass index or BMI of 25 to 29 kg/m and obese as 30 kg/m or above.) The percentage of women who were obese at the start of pregnancy jumped 8 percent between 2011 and 2015, while overweight rates at conception went up 2 percent during the same period.

Women who are overweight or obese can have a harder time getting pregnant, due to irregular menstrual cycles or inability to ovulate.

Fetal programming: focus on the in-utero environment

Research is increasingly showing that the babies of women who are overweight or obese during pregnancy are genetically “programmed” to develop diseases in childhood or as adults, including diabetes and heart disease. This concept, known as fetal programming, recognizes the impact of nutrition and other factors during development on an entire lifespan.

“Pregnancy is one moment in time that affects your whole life and that of your baby,” says Tina Nguyen, MD, assistant clinical professor, obstetrics and gynecology.

UCLA investigators are studying ways in which preeclampsia during pregnancy can program a baby for a higher risk of developing high blood pressure and heart issues. Also under examination are molecular, genetic and nutritional forces that cause preeclampsia.

Other current research targets placental programming. A recent study found that prenatal growth patterns and birth weight are associated with DNA changes and the expression of genes related to cardiometabolic risk, which measures the chances of having diabetes, heart disease or stroke.

During pregnancy

It is possible for a woman who is overweight or obese to have a healthy pregnancy, according to UCLA high-risk-pregnancy specialists. However, mother and baby will require more monitoring — perhaps six to seven scans during pregnancy, compared to one or two for lower-risk pregnancies. Excess weight can complicate efforts to monitor the fetus, making it more difficult to diagnose anomalies.

Women are more likely to develop gestational diabetes if significantly overweight with a BMI of 30 kg/m or above. As a result, they are more likely to face future health problems, including type 2 diabetes, hypertension and ischemic heart disease. Obesity increases the incidence of preeclampsia, a sudden jump in blood pressure after the 20th week of pregnancy, which carries a higher risk of heart disease later in life.

Excess weight also represents risks to the baby, including a heightened chance of congenital heart defects along with other physical defects. Babies may be born too large (macrosomia), too small or too soon. Over the long term, they face a greater risk of diabetes, hypertension and metabolic syndrome, which, in turn, raises the odds of heart attacks and strokes in adulthood.

Overweight women have a higher rate of cesarean section deliveries; in some cases, their babies are too big to safely exit the birth canal. Healing typically is slower for overweight mothers, who face elevated rates of infection and blood clots as a result.

Weight and fitness

In 2009, the Institute of Medicine (IOM) issued stricter guidelines to address obesity in pregnancy, recommending that obese women limit their gain to 11 to 20 pounds and overweight women limit their gain to 15 to 25 pounds.

Rather than trying to lose weight while pregnant, women who are overweight or obese may be advised to maintain their current weight or gain as little as possible. Preconception counseling at UCLA offers a range of resources, including nutrition and fitness programs, to lose weight before becoming pregnant.

For women who exercise regularly before conceiving, most can continue to do so at a reduced level. Women who have exercised very little or not at all may begin with such safe exercises as walking, swimming and gentle yoga. After pregnancy, breastfeeding for at least six months is a way to bond with a newborn — and to lose weight.

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