

Obese/overweight pregnant women can safely control weight gain through diet and exercise

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Many overweight and obese women gain too much weight during pregnancy, further ratcheting up their already-increased risk of serious complications for themselves and their babies.

A new group of trials funded by the National Institutes of Health (NIH) showed that pregnant [women](#) can safely limit their [weight gain](#) with diet and exercise interventions. It is the largest set of trials in the U.S. to target [pregnancy](#) weight gain of overweight and [obese women](#). The trials included diverse socioeconomic groups, which means the findings are generalizable to a large population.

"This is an important study because it affirms that women can change behaviors to control the amount of weight gained in pregnancy," said lead author Dr. Alan Peaceman, chief of maternal fetal medicine at Northwestern University Feinberg School of Medicine and a Northwestern Medicine high-risk obstetrician.

However, the reduced weight gain—about four pounds per woman—did not result in fewer

obstetrical complications, including cesarean sections, diabetes, hypertension, and preeclampsia, or change the average birth weight of the baby.

"We think that by the time these women are already in the second trimester, it may already be late to change important outcomes," Peaceman said. "To lower the risk of obstetrical complications, they may have to start changing their lifestyle before or immediately after they conceive."

Investigators are hopeful that there will be longer-term benefits of the interventions in the infants, such as less childhood obesity or fewer metabolic abnormalities such as childhood diabetes.

The study was published Sept. 6 in the journal *Obesity*.

Seven teams of investigators recruited 1,150 participants for the LIFE-Mom trials (579 women had the lifestyle intervention, 571 had standard care), which ran from the second trimester to birth. Each trial offered a varied lifestyle intervention, but all aimed to improve diet quality and reduce calories, increase physical activity and incorporate behavior strategies such as self-monitoring.

Overweight and obese women are "hard nut to crack"

Overweight and obese women are a critical group to target, because they have higher rates of excess pregnancy weight gain and of retaining that weight postpartum. They also are more likely to have children who are obese. The majority of U.S. women of reproductive age are overweight or obese.

About 62 percent of the women in the intervention

groups, versus 75 percent in the control groups, exceeded the National Academy of Medicine recommendations for pregnancy weight gain. The recommendation is overweight women limit their pregnancy weight gain to 15 to 25 pounds and obese women to 11 to 20 pounds, compared to 25 to 35 pounds for non-overweight women.

The fact that so many women in the intervention groups still exceeded the recommended weight gain shows the challenges of encouraging [pregnant women](#) to adhere to recommended diet and activity levels at a time when overeating and reluctance to exercise tend to increase, Peaceman said.

"It's a very hard nut to crack," he said.

A seesaw history of pregnancy weight gain

The advice doctors gave women about pregnancy weight gain has varied widely from decade to decade. In the 1950s, doctors often instructed their patients not to gain more than 15 pounds, Peaceman said.

By the late 1970s and early 1980s, mothers weren't gaining enough weight and were having small babies, which could lead to developmental problems in childhood. Then doctors started encouraging women to gain more weight.

"Doctors essentially told them that they could eat for two," Peaceman said.

"Then women started gaining excessively, but it wasn't thought to be a medical issue, just a cosmetic one," Peaceman said. "The attitude was, 'there's more weight for you to lose when you're done, but that is not a major medical concern'."

In the early 2000s, physicians started noticing that excessive pregnancy weight gain was associated with certain pregnancy complications: higher incidence of high blood pressure, gestational diabetes and cesarean sections.

"Then we started seeing more worrisome things," Peaceman said. "Excess [maternal weight gain](#) was not just associated with bigger babies, but those babies ended up with an increased risk of obesity

and childhood diabetes."

A few researchers began investigating whether they could help women avoid excess weight gain during pregnancy. Trials testing different strategies for limiting pregnancy weight gain in overweight and obese women had mixed results, in part due to different populations studied and the lack of standardized clinical outcome measures.

"That's why NIH recognized the need to do this study in diverse populations and with standardized clinical outcome measures," Peaceman said. "It provides more reliable evidence."

Provided by Northwestern University

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