

Pregnant women with obesity may not require additional calories for healthy pregnancies

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The Institute of Medicine's guidelines currently advise all pregnant women to increase calorie intake by 340-450 calories/day during their second and third trimesters, regardless of their body size at conception. Approximately 2/3 of women with obesity at the time of pregnancy will gain more weight than recommended, highlighting a need for evidence-based guidelines to optimize the health of this population and their offspring.

This week in the *JCI*, Most et al. describe the results of a clinical trial evaluating weight gain and its two primary determinants—calorie intake and [energy expenditure](#)— in 54 women with obesity throughout their pregnancies. The study, led by Leanne Redman at Pennington Biomedical Research Center, provides new and important insights into calorie recommendations for pregnant women.

Most et al.'s results contradict the Institute of Medicine's recommendation that women with obesity should increase calorie intake during pregnancy, showing that mobilization of maternal

fat stores provided sufficient energy to support fetal development. The researchers also observed that gestational weight gain due to the increased [blood volume](#), expansion of breast tissue and fetal mass, accounted for the 5-9 kg (11-20 pounds) that the Institute of Medicine advises women with obesity to gain during pregnancy. Therefore, even small increases in daily calorie consumption (~200 calories) led to excess weight gain in these women.

This study's findings refute the assumption that pregnant women with obesity require excess calorie intake to support a healthy pregnancy, instead suggesting that they would likely benefit from maintaining pre-pregnancy [calorie intake](#) and to focus on improving diet quality. Discussing the results of the trial, Most et al. emphasized that this and other studies of pregnant women with obesity are a crucial step to improving health outcomes associated with gestational weight gain for mothers and babies.

Dr. Sarah Comstock of Michigan State University highlights the study's findings and implications in an accompanying commentary article entitled "Time to change [weight gain](#) recommendations for [pregnant women](#) with obesity," linked below.

More information: Jasper Most et al, Evidence-based recommendations for energy intake in pregnant women with obesity, *Journal of Clinical Investigation* (2019). [DOI: 10.1172/JCI130341](https://doi.org/10.1172/JCI130341)

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