

# Food insecurity can lead to greater weight gain and complications during pregnancy

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Living in a food-insecure household during pregnancy may increase the odds of greater weight gain and pregnancy complications, particularly gestational diabetes mellitus (GDM), according to a new study published in the May issue of the *Journal of the American Dietetic Association*. Household food insecurity, the inability to obtain nutritious and safe foods in socially acceptable ways, is increasingly recognized as an independent risk factor for many poor health outcomes among women.

Prior studies have demonstrated that paradoxically, women living in food insecure households report higher rates of overweight and related health complications. "The present study was conducted to estimate the association between household food insecurity status and maternal health during pregnancy, when changes in both body weight and overall health can be dramatic," according to Barbara A. Laraia, PhD, MPH, RD, and co-investigators. "The results suggest that the experience of living in a food insecure household was associated with metabolic health indicators during pregnancy. Not only was living in a food insecure household associated with severe pregravid obesity—a condition that broadly predisposes women to adverse pregnancy outcomes—but also with greater gestational weight gain and [gestational diabetes](#) mellitus."

Researchers from the University of North Carolina, Chapel Hill, and the US Department of Agriculture's Economic Research Service, Washington, DC, used data from the Pregnancy, Infection and Nutrition prospective cohort study—810 pregnant women with incomes less than 400% of the income/poverty ratio were followed through their

pregnancies. This household income restriction allowed better comparison among households that might have food insecurity due to financial and material constraints. In this group, 76% were from fully food secure, 14% were from marginally food secure, and 10% were from food insecure households.

A significant finding that emerged is the association between household food insecurity and development of GDM. The authors observed that the combined group of women from marginally secure and insecure food households had more than twice the odds of developing GDM than women in food secure households, suggesting that women living in a household with any level of [food insecurity](#) may be at risk. This is an important public health finding given that GDM has implications for both the fetus (macrosomia or excessive birth weight) as well as the mother (a significant precursor to type II diabetes later in life).

Overall, women from marginally food secure and food insecure households were similar with regard to most demographic, socioeconomic and weight status variables assessed in this study. Compared to women from food secure households, women from marginally secure and food insecure households were significantly more likely to be black, to be single, have fewer years of education, less income and be either overweight or severely obese.

The authors recommend continuation of public health efforts to provide adequate funding and outreach to those in need and advocate population-based programs and policies designed to ensure that pregnant [women](#) have access to high-quality, nutritious food.

**More information:** "Household food insecurity is associated with self-reported pregravid weight status, gestational weight gain and pregnancy complications" by Barbara A. Laraia, PhD, MPH, RD; Anna Maria Siega-Riz, PhD, RD; and Craig Gundersen, PhD, appears in the Journal

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