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Excessive maternal weight increases risk of infant overgrowth

Infants born to women who had obesity or overweight before pregnancy have a high risk of being large for gestational age (LGA), show the findings of a new study. This risk is high whether or not these women have gestational diabetes mellitus (GDM). Weight gain during pregnancy was also seen to increase the risk of an LGA birth.

Excessive infant weight is strongly associated with maternal and infant morbidity. However, "scant data exist on the relative contribution of all three factors—prepregnancy overweight/ obesity, GDM and excessive weight gain—to adverse outcomes," says study author Mary Helen Black. "Additionally, no study thus far has considered all three factors while simultaneously using the new IADPSG (International Association of Diabetes in Pregnancy Study Groups) guidelines for diagnosing GDM."

The study involved 9,835 women not treated for diabetes mellitus who were

registered at the Kaiser Permanente Southern California Medical Care Program. Participants were divided into six mutually exclusive groups according to prepregnancy BMI status (normal weight, overweight or obesity) and presence or absence of GDM.

In line with previous findings, the study results show that excessive prepregnancy maternal BMI increases the risk of LGA births, with the proportion of infants born LGA owing to maternal overweight or obesity being 21.6% among women without GDM. GDM increased the risk of LGA births among all groups, as did weight gain during pregnancy.

Black stresses that interventions that help women with excessive BMI lose weight before pregnancy, regardless of GDM status, may help prevent fetal overgrowth and other adverse outcomes. "Women with overweight or obesity who are planning a pregnancy should talk to their health-care provider, with



the goal of achieving a healthier weight before becoming pregnant," Black says. "For women with overweight or obesity with unplanned pregnancies, health-care providers should discuss the importance of and help provide strategies for maintaining gestational weight gain within the Institute of Medicine guidelines."

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Original article Black, M. H. et al. The relative contribution of prepregnancy overweight and obesity, gestational weight gain, and IADPSG-defined gestational diabetes mellitus to fetal overgrowth. *Diabetes Care* doi:10.2337/dc12-0741