

Half of all mums-to-be gain 'too much' weight during pregnancy

May 9 2014



(Medical Xpress)—Almost half (43%) of all pregnant women in Ireland exceed medical guidelines for weight gain during pregnancy, according to a new study. The findings published in the academic research journal *Obesity* also show that excessive weight gain during pregnancy has significant implications for infant growth and obesity, with potential implications for later adult health.

To conduct the study, researchers from University College Dublin and the National Maternity Hospital, Holles Street, surveyed 621 mothers and infant pairs. At their first antenatal visit, the mums-to-be were measured for their weight, height, and upper arm circumference; fasting serum glucose, insulin and lipid concentrations. At delivery, the infants

were measured for weight, length, head circumference and a blood cord sample was taken for fetal glucose, leptin, and C-peptide concentrations.

The women surveyed were divided into three groups based on early pregnancy weight assessment (BMI or Body Mass Index): those who were underweight or had a BMI less than 18.5 (0.3%); those who were normal weight or had a BMI between 18.5–24.9 (41.1%); those who were overweight or had a BMI between 25–29.9 (38%); and those who were obese or had a BMI greater than 30 (20.6%).

"Women who were already considered as overweight before their pregnancy were significantly more likely to gain excessive weight during their pregnancy", said Fionnuala McAuliffe, Professor of Obstetrics and Gynaecology at UCD School of Medicine & Medical Science and the National Maternity Hospital, Holles Street, Dublin, who led the study.

Institute of Medicine (US) Weight Gain Recommendations for Pregnancy			
Prepregnancy Weight Category	Body Mass Index*	Recommended Range of Total Weight (lb)	Recommended Rates of Weight Gain† in the Second and Third Trimesters (lb) (Mean Range [lb/wk])
Underweight	Less than 18.5	28-40	1 (1-1.3)
Normal Weight	18.5-24.9	25-35	1 (0.8-1)
Overweight	25-29.9	15-25	0.6 (0.5-0.7)
Obese (includes all classes)	30 and greater	11-20	0.5 (0.4-0.6)

*Body mass index is calculated as weight in kilograms divided by height in meters squared or as weight in pounds multiplied by 703 divided by height in inches.

According to the findings, 61% of overweight women, 54% of obese women, and 21% of normal weight women exceeded the guidelines on weight gain during their pregnancy.

"Women who exceeded the Institute of Medicine (US) guidelines for weight gain during pregnancy gave birth to heavier infants with higher levels of body-fat, and they were three times more likely to be delivered by caesarean section," added Dr Jennifer Walsh co-author on the study.

The study findings also identified that 65% of [women](#) who exceeded the guidelines during their first pregnancy also exceeded the guidelines in their next pregnancy, while only 25% of those who did not exceed the guidelines in their first pregnancy went on to exceed the [guidelines](#) in their next pregnancy.

"The association between [excessive weight](#) gain and adverse outcome necessitates clear guidance for all [pregnant women](#) on optimal gestational [weight gain](#), irrespective of pre-[pregnancy](#) weight assessment [BMI]," concluded Professor McAuliffe.

Provided by University College Dublin

Citation: Half of all mums-to-be gain 'too much' weight during pregnancy (2014, May 9)
retrieved 15 July 2023 from <https://medicalxpress.com/news/2014-05-mums-to-be-gain-weight-pregnancy.html>

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