

Gestational Weight Gain and Early Postpartum Weight Retention in a Prospective Cohort of Alberta Women

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ABSTRACT

Objective: To describe gestational weight gain during pregnancy, adherence to Health Canada 2010 Gestational Weight Gain Guidelines, and the effects of weight gain on postpartum weight retention in women with different pre-pregnancy body mass indices.

Method: Body weight data were collected from women during pregnancy and in the early postpartum period as part of this prospective cohort study; analyses are presented for the first 600 women recruited. Multilinear regression was used to assess associations between pre-pregnancy BMI, total gestational weight gain, and postpartum weight retention. Multinomial regression was used to assess adherence to guidelines for total weight gain and rates of weekly weight gain.

Results: Women who gained above recommendations were more likely to be

overweight (OR 5.5; 95% CI 2.7 to 10.9, $P < 0.001$) or obese (OR 6.5; 95% CI 2.5 to 16.5, $P < 0.001$) before pregnancy, to have a history of smoking (OR 1.96; 95% CI 1.18 to 3.26, $P = 0.01$), or to be nulliparous (OR 2.23; 95% CI 0.99 to 5.05, $P = 0.054$). Women who gained weight above recommendations ($P < 0.001$) and women with low income ($P < 0.01$) were more likely to retain higher body weight at three months postpartum. Seventy-one percent of participants exceeded recommended rates of weekly weight gain; average weekly weight gain of these women was 0.65 ± 0.17 kg.

Conclusion: Pre-pregnancy BMI is a significant predictor of excessive weight gain in pregnancy. Higher gestational weight gain predisposes women to higher postpartum weight retention across all BMI categories. Future studies are warranted to design tools and intervention programs to monitor weight gain during pregnancy.

Key Words: Gestational weight gain, pre-pregnancy body mass index, postpartum weight retention