

Healthy Pregnancy Weight Gain

Background

Evidence shows that pre-pregnancy body mass index (BMI) and weight gained during pregnancy are both independent factors for maternal and child health outcomes (1). People of any prepregnant BMI may gain weight that does not meet or exceeds Health Canada recommended weight ranges. This results in increased risk of pregnancy complications and adverse outcomes for the patient and child. Of particular concern is the increasing trend of people with a high BMI who become pregnant, as well as an increasing number of people who exceed weight gain recommendations (2, 3).

Weight gain during pregnancy below recommendations increases the risk of (4, 5):

- preterm birth
- babies born small for gestational age, which is associated with health problems later in life
- a lower likelihood of initiating breastfeeding

Weight gain during pregnancy above recommendations increases the risk of (4, 6, 7, 8):

- babies born large for gestational age and increased risk of childhood obesity
- pre-eclampsia and gestational diabetes
- caesarean delivery and complications during labor and delivery
- post-partum weight retention (and subsequent obesity)

Guidelines for gestational weight gain

The Health Canada pregnancy weight gain recommendations (9), adapted from the 2009 Institute of Medicine guidelines, are based on pre-pregnancy BMI. These ranges are associated with the best health outcomes. The guidelines are intended to be used together with good clinical judgment as well as regular discussions between the patient and health care provider about nutrition and physical activity.

Weight Gain Recommendations for Singleton Pregnancies

Weight Category	Pre-Pregnant BMI (kg/m ²)	Total Weight Gain for Pregnancy	Mean Weight Gain Rate in 2 nd & 3 rd Trimesters
Underweight	<18.5	12.5 - 18 kg • 28 - 40 lbs	0.5 kg/week • 1 lb/week
Healthy Weight	18.5-24.9	11.5 - 16 kg • 25 - 35 lbs	0.4 kg/week • 1 lb/week
Overweight	25.0-29.9	7 - 11.5 kg • 15 - 25 lbs	0.3 kg/week • 0.6 lb/week
Obese*	≥30	5 - 9 kg • 11 - 20 lbs	0.2 kg/week • 0.5 lb/week

*Consider referral to a dietitian. A narrower range of weight gain may be advised for people with pre-pregnancy BMI > 35.

Healthy Pregnancy Weight Gain

What does this mean for your practice?

Individualized care is an important component of supporting pregnant patients to achieve healthy weight gain (4). Practices to support a healthy lifestyle and weight include:

- Calculate pre-pregnancy BMI at initial visit and communicate with all patients about healthy rates and patterns of weight gain including the benefits of gaining within the recommended range. Discussions about weight should occur regularly throughout pregnancy.
- Develop a weight gain goal with all patients early in pregnancy.
- Provide pregnant and postpartum patients with advice related to healthy eating and physical activity that meets their preferences and needs.
- Assist patients to identify realistic healthy living goals and provide continued support throughout the pregnancy.
- Chart weight gain throughout pregnancy and share the results with patients.
- Use clinical judgement around pregnancy weight gain to decide when a referral to another health care provider or support system is necessary. Referrals may be made to dietitians, mental health professionals or community programs.

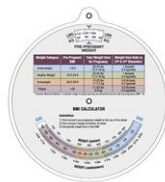
Resources for your practice

An accredited continuing medical education program on healthy pregnancy weight gain is available for free to all health care providers. To register, visit <http://ecme.ucalgary.ca/programs/hpwg>

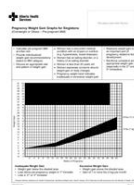
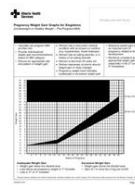
Health care providers can order free copies of these resources:



Poster



BMI Calculator



Pregnancy weight gain graphs for singletons



Healthy Parents, Healthy Children book sets (also available online, healthyparentshealthychildren.ca)

Order Resources: <https://dol.datacm.com>

Username: healthypublic

Password: healthy2013

Email: HPHC@ahs.ca with feedback or questions

Visit: ahs.ca/hcf

References

1. O'Connor, D. L., Blake, J., Bell, R., Bowen, A., Callum, J., Fenton, S., & Khatri, N. (2016). Canadian consensus on female nutrition: adolescence, reproduction, menopause, and beyond. *Journal of Obstetrics and Gynaecology Canada*, 38(6), 508-554.
2. Begum, F., Colman, I., McCargar, L. J., & Bell, R. C. (2012). Gestational weight gain and early postpartum weight retention in a prospective cohort of Alberta women. *Journal of Obstetrics and Gynaecology Canada*, 34(7), 637-647.
3. Jarman, M., Yuan, Y., Pakseresh, M., Shi, Q., Robson, P. J., & Bell, R. C. (2016). Patterns and trajectories of gestational weight gain: a prospective cohort study. *CMAJ open*, 4(2), E338-E345.
4. Institute of Medicine and National Research Council. (2009). *Weight Gain During Pregnancy: Reexamining the Guidelines*. Washington, DC: The National Academic Press.
5. Viswanathan M, Siega-Riz AM, Moos M-K, Deierlein A, Mumford S, Knaack J, Thieda P, Lux LJ, Lohr KN. 2008. Outcomes of maternal weight gain. Rockville, MD: Agency for Healthcare Research and Quality.
6. Devader SR, Neeley HL, Myles TD, Leet TL. (2007). Evaluation of gestational weight gain guidelines for women with normal prepregnancy body mass index. *Obstet Gynecol*, 110(4), 745-51.
7. Morisset, A.S.; Tchernof, A.; Dube, M.C.; Veillette, J.; Weisnagel, S.J. & Robitaille, J. (2011). Weight gain measures in women with gestational diabetes mellitus. *J Womens Health*, 20(3):375-80.
8. Dzakpasu, S., et al. (2014). Contribution of prepregnancy body mass index and gestational weight gain to caesarean birth in Canada. *BMC pregnancy and childbirth*, 14(1), 1.
9. Health Canada. (2010). *Prenatal Nutrition Guidelines for Health Professionals: Gestational Weight Gain*. Ottawa, Canada: Government of Canada.