



City Research Online

City, University of London Institutional Repository

Citation: Olander, E. K. (2015). Weight management in pregnancy. Nursing in Practice(Septem), pp. 19-24.

This is the published version of the paper.

This version of the publication may differ from the final published version.

Permanent repository link: <https://openaccess.city.ac.uk/id/eprint/12594/>

Link to published version:

Copyright: City Research Online aims to make research outputs of City, University of London available to a wider audience. Copyright and Moral Rights remain with the author(s) and/or copyright holders. URLs from City Research Online may be freely distributed and linked to.

Reuse: Copies of full items can be used for personal research or study, educational, or not-for-profit purposes without prior permission or charge. Provided that the authors, title and full bibliographic details are credited, a hyperlink and/or URL is given for the original metadata page and the content is not changed in any way.

Ellinor Olander
BPsych, MSc, PhD, MBPsS,
lecturer in maternal and child
health, Centre for Maternal and

Child Health Research, City
University London

Nursing IN PRACTICE

Weight management in pregnancy

Key learning points:

- ▶ Women who start pregnancy in an overweight or obese weight category have increased health risks
- ▶ Irrespective of pre-pregnancy weight category, there are health risks associated with gaining too much weight in pregnancy for both mother and baby
- ▶ There are currently no official weight gain guidelines for pregnancy in the UK, thus focus needs to be on supporting pregnant women to eat healthily and keep active

There are two main issues concerning weight management and pregnancy. The first issue is the weight of the woman when she starts pregnancy, with numerous health risks associated with weighing too little or too much, as defined by body mass index (BMI) (see Table 1). UK data shows that 4.93% of women start pregnancy underweight, 25.88% start pregnancy overweight and 15.61% start pregnancy obese.¹

The second issue is a woman's weight gain during pregnancy, as there are health risks associated with gaining too much weight, irrespective of the woman's BMI category. In other words, women with a healthy BMI at the start of pregnancy still need to be careful as to not gain too much weight throughout pregnancy. UK data suggests that between 40-65% of women might gain too much weight in pregnancy.² These two issues, pre-pregnancy weight and pregnancy weight gain, will be discussed in this article, along with suggestions for how to support women.

MATERNAL OVERWEIGHT AND OBESITY

Compared to pregnant women with a healthy BMI, pregnant women in the overweight BMI category have an increased risk of

“Compared to women with a healthy weight, underweight women have an increased risk of preterm birth and having a small baby”





gestational diabetes and caesarean section,³ antenatal and postnatal depression,⁴ and their baby risks being born preterm.⁵ A recent review found that pregnant women with obesity had an increased risk of gestational diabetes, pre-eclampsia, birth complications,³ and perinatal anxiety and depression⁴ compared to women with a healthy pre-pregnancy BMI. Moreover these risks extend to the infant, with increased risks of preterm birth, large-for-gestational-age babies (defined as more than 4000g), congenital anomalies, fetal defects and perinatal death.³

Breastfeeding initiation and maintenance rates are also often lower for pregnant women with obesity.³ This may be due to the type of delivery these women had, where a caesarean section can lead to a delay in skin-to-skin contact, but also a lack of privacy on wards prevents body-conscious women from initiating breastfeeding.⁶

Associated with these health risks are numerous implications for practice, including how to discuss weight sensitively with pregnant women. A review of women with obesity and their experiences with antenatal care found that women may feel more positive and confident about their bodies during pregnancy.⁷ Worryingly however, these women were rarely aware of the risks associated with obesity.

The current National Institute for Health and Care Excellence (NICE) guidelines regarding weight before, during and after pregnancy have specific recommendations for supporting women with obesity.⁸ These recommendations state that women should be informed about the additional risks associated with obesity, and offered a referral to a dietician or other healthcare



professionals who can provide personalised advice on healthy eating and physical activity. Women should also be encouraged to lose weight after pregnancy. Like all women, women with obesity should be encouraged to breastfeed but not assume breastfeeding will lead to weight loss. Weight change will depend on the duration, intensity and frequency of breastfeeding, weight status of the mother and her eating and activity levels.⁹

MATERNAL UNDERWEIGHT

Women starting pregnancy underweight is rare. A recent hospital audit showed that 2% of women were classified as underweight and 17% obese at the start of pregnancy.¹⁰ Compared to women with a healthy weight, underweight women have an increased risk of preterm birth and having a small baby.¹¹ Importantly, the NICE guidelines on weight management in pregnancy cited above do not include women who are underweight.⁸ That being said, it is likely that these women will benefit from the same advice given to pregnant women of other weight categories.

GESTATIONAL WEIGHT GAIN

There are a number of issues surrounding what advice to give women regarding weight gain in pregnancy. International research suggests that women who gain too much weight in pregnancy, irrespective of pre-pregnancy weight category, have an increased risk of pre-eclampsia and caesarean section^{12,13} and delivering larger babies² compared to those women who gain a healthy amount of weight. Additionally, women who gain a lot of

weight during pregnancy are likely to struggle to lose this weight postnatally,¹⁴ making pregnancy a time where many women gain weight they never subsequently lose. So, what is too much weight in pregnancy?

NICE states that “there are no evidence-based UK guidelines on recommended weight-gain ranges during pregnancy”.⁸ The lack of guidelines makes advising women on how much weight they should gain in pregnancy difficult. The American Institute of Medicine guidelines says weight gain depends on pre-pregnancy weight status. In other words, women who start their pregnancy obese should gain less weight compared to those women who start pregnancy overweight, at a healthy weight or underweight.¹⁵ Several UK trusts now use these guidelines in practice, however it should be noted that a large UK trial recently found that limiting weight gain in pregnant women with obesity did not result in a lower risk for gestational diabetes, indicating that there is no strong evidence for what constitutes appropriate healthy or safe weight gain in pregnancy.¹⁶

SUPPORTING WOMEN DURING PREGNANCY

Midwives often report feeling anxious or worried about discussing weight with pregnant women.¹⁷ This is not surprising as weight can be a very sensitive topic for many women, in particular during pregnancy when weight gain is inevitable. It needs to be emphasised that pregnant women are happy to be weighed in pregnancy^{17,18} and this may be a good time to raise the issue. NICE recommends that all women should be weighed at the start of pregnancy, but weighing should only continue throughout pregnancy if there is a clinical reason to do so.⁸ Importantly, NICE suggests that women should not be weighed repeatedly during pregnancy as a matter of routine.

As there are no UK guidelines regarding pregnancy weight gain, midwives and other healthcare professionals are advised to focus on supporting women to eat healthily and keep active.⁸

Focusing on these behaviours may also avoid the issue of stigmatising women with obesity, as the recommended behaviours are the same for all women regardless of their weight category. The most recent NICE guidelines regarding healthy eating and physical activity are outlined below.

Healthy eating

Healthy eating should be discussed with all pregnant women, with emphasis on the benefits to mother and baby and seeking information from a reputable source.⁸ Even though many women are aware of what healthy eating entails, they still appreciate this information from a healthcare professional.¹⁷ NICE

“Between 40-65% of women might gain too much weight in pregnancy”

TABLE 1. NICE WEIGHT CATEGORIES

Category	Body mass index (BMI)
Underweight	≤ 18.5 kg/m ²
Healthy weight	18.5–24.9 kg/m ²
Overweight	25–29.9 kg/m ²
Obesity I	30–34.9 kg/m ²
Obesity II	35–39.9 kg/m ²
Obesity III	≥ 40 kg/m ²

recommends dispelling any myths about what and how much to eat in pregnancy with energy needs not needing to change until the final three months, were approximately 300 extra calories need to be eaten per day. This equates to an avocado or small chocolate bar.

Physical activity

Healthcare professionals should also discuss physical activity with all pregnant women.⁸ Women should be advised to keep active as it will benefit her and her baby, and help her with weight loss after birth. Moderate physical activity in 15 minute bouts

“The lack of guidelines makes advising women on how much weight they should gain in pregnancy difficult”

three times a week is advised before increasing this activity to 30 minutes every day of the week. Women who have kept active regularly before pregnancy should be advised that they can continue this activity. Women often report being worried that physical activity can cause their baby harm,¹⁹ so they need to be shown how to engage in physical activity safely, and be encouraged to engage in appropriate activities such as walking and swimming. If women struggle to keep active in pregnancy, they should be advised to avoid being sedentary, i.e. avoid sitting for prolonged periods of time.

CONCLUSION

Women with obesity need to be supported to lose weight before they conceive, eat healthily and keep active in pregnancy and lose excessive weight postpartum. This support needs to be delivered in a sensitive manner taking the woman's circumstances into account. Importantly, this support needs to be provided by all healthcare professionals who work with pregnant and postnatal women and their families, in particular midwives, health visitors, GPs and practice nurses.

RESOURCES AND FURTHER INFORMATION

National Obesity Observatory

noo.org.uk/

Royal College of Midwives partnership with Slimming World

rcm.org.uk/about/who-we-work-with/slimming.

Tommy's charity regarding physical activity

tommys.org/pregnancy/exercise.

REFERENCES

- Heslehurst N, Rankin J, Wilkinson JR, Summerbell CD. A nationally representative study of maternal obesity in England, UK: trends in incidence and demographic inequalities in 619 323 births, 1989-2007. *International Journal of Obesity* 2010;34(3):420-8. DOI:10.1038/ijo.2009.250 (accessed 1 September 2015).
- Crozier SR, Inskip HM, Godfrey KM, Cooper C, Harvey NC, Cole ZA, et al. Weight gain in pregnancy and childhood body composition: Findings from the Southampton Women's Survey. *American Journal of Clinical Nutrition* 2010;91(6):1745-51. DOI:10.3945/ajcn.2009.29128 (accessed 1 September 2015).
- Marchi J, Berg M, Dencker A, Olander EK, Begley C. Risks associated with obesity in pregnancy, for the mother and baby: a systematic review of reviews. *Obesity Reviews* 2015;16(8):621-38. DOI: 10.1111/obr.12288 (accessed 1 September 2015).
- Molyneaux E, Poston L, Ashurst-Williams S, Howard LM. Obesity and Mental Disorders During Pregnancy and Postpartum: A Systematic Review and Meta-analysis. *Obstetrics & Gynecology* 2014;123(4):857-67. DOI: 10.1097/AOG.0000000000000170 (accessed 1 September 2015).
- McDonald SD, Han Z, Mulla S, Beyene J. Overweight and obesity in mothers and risk of preterm birth and low birth weight infants: systematic review and meta-analyses. *British Medical Journal* 2010;341. DOI: 10.1136/bmj.c3428. (accessed 1 September 2015).
- Keely A, Lawton J, Swanson V, Denison FC. Barriers to breast-feeding in obese women: A qualitative exploration. *Midwifery* 2015;31(5):532-9. DOI: 10.1016/j.midw.2015.02.001. (accessed 1 September 2015).
- Smith D, Lavender T. The maternity experience for women with a body mass index ≥ 30 kg/m²: a meta-synthesis. *British Journal of Obstetrics and Gynaecology* 2011;118(7):779-89. DOI: 10.1111/j.1471-0528.2011.02924.x. (accessed 1 September 2015).
- National Institute for Health and Care Excellence. *NICE public health guidance 27: Dietary interventions and physical activity interventions for weight management before, during and after pregnancy*, 2010. guidance. nice.org.uk/PH27 (accessed 1 September 2015).
- Neville CE, McKinley MC, Holmes VA, Spence D, Woodside JV. The relationship between breastfeeding and postpartum weight change-a systematic review and critical evaluation. *International Journal of Obesity* 2013;38(4):577-90. DOI: 10.1038/ijo.2013.132. (accessed 1 September 2015).
- McKeating A, Maguire PJ, Daly N, Farren M, McMahon L, Turner MJ. Trends in maternal obesity in a large university hospital 2009-2013. *Acta Obstetrica et Gynecologica Scandinavica* 2015;94(9):969-75. DOI: 10.1111/aogs.12685 (accessed 1 September 2015).
- Han Z, Mulla S, Beyene J, Liao G, McDonald SD. Maternal underweight and the risk of preterm birth and low birth weight: a systematic review and meta-analyses. *International Journal of Epidemiology* 2011;40(1):65-101. DOI: 10.1093/ije/dyq195 (accessed 1 September 2015).
- Cedergren M. Effects of gestational weight gain and body mass index on obstetric outcome in Sweden. *International Journal of Gynaecology and Obstetrics* 2006;93(3):269-74.
- Crane JM, White J, Murphy P, Burrage L, Hutchens D. The effect of gestational weight gain by body mass index on maternal and neonatal outcomes. *Journal of Obstetrics and Gynaecology* 2009;31(1):28-35.
- Walker LO. Managing excessive weight gain during pregnancy and the postpartum period. *Journal of Obstetric, Gynecologic, & Neonatal Nursing* 2007;36(5):490-500. DOI: 10.1111/j.1552-6909.2007.00179.x (accessed 1 September 2015).
- The American College of Obstetricians and Gynecologists. Committee Opinion: *Weight gain during pregnancy*, 2013.
- Poston L, Bell R, Croker H, Flynn AC, Godfrey KM, Goff L, et al. Effect of a behavioural intervention in obese pregnant women (the UPBEAT study): a multicentre, randomised controlled trial. *The Lancet Diabetes & Endocrinology*. In press.
- Heslehurst N, Dinsdale S, Sedgewick G, Simpson H, Sen S, Summerbell CD, et al. An Evaluation of the Implementation of Maternal Obesity Pathways of Care: A Mixed Methods Study with Data Integration. *PLoS ONE* 2015;10(5):e0127122.
- Atkinson L, Olander E, French D. Acceptability of a Weight Management Intervention for Pregnant and Postpartum Women with BMI ≥ 30 kg/m²: A Qualitative Evaluation of an Individualized, Home-Based Service. *Maternal and Child Health Journal* 2015:1-9.
- Hanghøj S. When it hurts I think: Now the baby dies. Risk perceptions of physical activity during pregnancy. *Women and Birth* 2013;26(3):190-4.