

MNCHP Network Bulletin



**best start
meilleur départ**
by/par health **nexus** santé

The MNCHP Bulletin is a bi-weekly electronic bulletin that highlights current trends, new resources and initiatives, upcoming events and more in the preconception, prenatal and child health field. Our primary focus is the province of Ontario, Canada but the Bulletin also includes news & resources from around the world. Wherever possible, we include resources that are available for free. For more information about this Bulletin, [click here](#).

November 16, 2012

The next bulletin will be released November 31, 2012.

Special Topic Bulletin: Overweight and Obesity in Pregnancy

This week's bulletin provides an overview of overweight and obesity in pregnancy and includes news articles, recent reports and studies, resources, and links to organizations and programs working in this area. This selection of information is based on a preliminary scan and is not exhaustive. We invite you to share other relevant information about this topic.

In this week's issue:

[I. NEWS & VIEWS](#)

- [1. Overweight and Obesity During Pregnancy](#)
- [2. Obesity and Pregnancy](#)
- [3. Autism Linked to Obesity During Pregnancy](#)
- [4. Unplanned Pregnancies More Common in Obese Women](#)
- [5. How to Get Pregnant if You're Overweight](#)

[II. RECENT REPORTS AND RESEARCH](#)

- [6. Lifestyle Interventions for Overweight and Obese Pregnant Women to Improve Pregnancy Outcome: Systematic Review and Meta-Analysis](#)
- [7. Sonography in Obese and Overweight Pregnant Women: Clinical, Medicolegal and Technical Issues](#)
- [8. Maternal Obesity, Excessive Gestational Weight Gain and Pregnancy Outcomes](#)
- [9. Effects on Interventions in Pregnancy on Maternal Weight and Obstetric Outcomes: A Meta-Analysis of Randomised Evidence](#)
- [10. Obesity in Pregnancy Hinders Women's Ability to Fight Infection](#)
- [11. Pre-pregnancy Obesity Linked to Child Test Scores](#)

12. [Barriers Encountered When Recruiting Obese Pregnant Women to a Dietary Intervention](#)
13. [Obesity in Pregnancy: Problems and Potential Solutions](#)
14. [Barriers to Addressing Overweight and Obesity Before Conception](#)

III. RESOURCES

15. [Maternity and Newborn Clinical Network State Clinical Guideline: Care of the Obese Pregnant Woman and Weight Management in Pregnancy](#)
16. [Obesity in Pregnancy \(A clinical practice guideline by the SOGC\)](#)
17. [Obesity and Pregnancy: Clinical Practice Guideline \(Institute of Obstetricians and Gynaecologists, Royal College of Physicians of Ireland and Clinical Strategy and Programmes Directorate, Health Service Executive\)](#)
18. [Obesity in Pregnancy: Deliver Sensitive Care](#)
19. [CMACE/RCOG Joint Guideline: Management of Women with Obesity in Pregnancy](#)
20. [Weight Management Before During and After Pregnancy](#)
21. [Preconception Health: What's Weight Got to do With IT?](#)
22. [Overweight and Obesity in Pregnancy: A Review of Evidence](#)
23. [Exercise and Pregnancy Lab](#)
24. [Canada Prenatal Nutrition Program \(CPNP\)](#)

IV. FEATURED BEST START RESOURCES

25. [Healthy Eating for a Healthy Baby](#)

I. NEWS & VIEWS

1. Overweight and Obesity During Pregnancy

Being overweight or obese during pregnancy may lead to complications during pregnancy. Obese or pregnant women are at a greater risk for miscarriage, infertility, still birth, high blood pressure, preeclampsia, gestational diabetes and complications during birth. Most babies born to obese or overweight mothers are born healthy, however they are at increased risk of birth defects (including defects of the brain and spine), preterm birth, injury during birth due to large size, death after birth, and childhood obesity. Overweight women may improve their chances of having a healthy pregnancy by receiving early and regular prenatal care, and exercising. Overweight women should gain approximately 15 to 25 pounds during pregnancy and obese women should gain approximately 11 to 20 pounds http://www.marchofdimes.com/pregnancy/complications_obesity.html

2. Obesity and Pregnancy

Obesity is defined as having a body mass index (BMI) of greater than 30. Approximately 15 to 20 percent of pregnant women are obese. Obesity may lead to difficulties in becoming pregnant. Obesity also carries with it the risk of miscarriage, gestational diabetes, high blood pressure, blood clots, post caesarean wound infection, genital and urine infection, haemorrhage with breastfeeding, as well as induction and instrumental delivery during birth. As overweight women are more likely to need an instrumental birth, it is usually safer for them to deliver in a hospital. The best way to combat the effects of obesity on pregnancy is to lose weight prior to pregnancy. Activities such as walking and swimming are beneficial to all pregnant women.

<http://www.nhs.uk/conditions/pregnancy-and-baby/pages/overweight-pregnant.aspx>

3. Autism Linked to Obesity During Pregnancy

A recent study published in Pediatrics has found that obese women are 67 percent more likely to have a child with autism. On average, women have a 1 in 88 chance of having a child with autism, but obese women have a 1 in 53 chance. It is possible that blood sugar and inflammation related substances in the mother's blood might reach the fetus and negatively impact fetal development.

<http://www.cbc.ca/news/health/story/2012/04/09/health-autism-obesity.html>

4. Unplanned Pregnancies More Common in Obese Women

A recent study has found that among women under the age of 30, obese women are four times more likely to experience unintended pregnancies than normal weight women. Despite being less likely than normal weight women to have been sexually active in the past year, obese women are more likely to rely on less effective means of birth control as opposed to those that are more effective (such as oral contraceptives).

<http://www.livescience.com/6616-unplanned-pregnancies-common-obese-women.html>

5. How to Get Pregnant If You're Overweight

Obese women hoping to get pregnant should consult their healthcare providers. Health care providers may recommend that these women be checked for polycystic ovary syndrome (an illness characterized by enlarged ovaries containing numerous small cysts, indicating that the ovary might be unable to prepare for ovulation). In addition to improving their diet, obese women should also monitor their hormonal cycle as excess fat might disrupt normal ovulation. As visceral (belly) fat can produce excess estrogen (which can negatively impact fertility), obese women should aim to lose excess fat in this area.

http://www.babyzone.com/getting-pregnant/how-to-get-pregnant/how-to-get-pregnant-overweight_88696

II. RECENT REPORTS AND RESEARCH

6. Lifestyle Interventions for Overweight and Obese Pregnant Women to Improve Pregnancy Outcome: Systematic Review and Meta-Analysis

Oteng-Ntim E, Varma R, Croker H et al.

A study conducted by OTeng-Ntim and colleagues aimed to determine the efficacy of antenatal activity, dietary, behaviour and lifestyle interventions at improving maternal and perinatal outcomes among overweight and obese pregnant women. Thirteen (13) randomised and six (6) non-randomised clinical trials were identified and included in this meta-analysis. Antenatal lifestyle interventions were found to be associated with restricted gestational weight gain, and a reduced prevalence of gestational diabetes among obese and overweight pregnant women. Pregnant women should be advised about the medical complications associated with obesity in pregnancy. Obstetric care providers should take BMI into consideration when arranging for fetal anatomic assessment during the second trimester, (with anatomic assessment at 20 to 22 weeks possibly being the better choice for the obese pregnant patient). Obese pregnant women should consult with an anaesthesiologist to review their options and to ensure that a plan is in place in the event that a regional anaesthetic is chosen.

<http://www.biomedcentral.com/1741-7015/10/47>

7. Sonography in Obese and Overweight Pregnant Women: Clinical, Medicolegal, and Technical Issues

Paladini D.

Ultrasound in Obstetrics and Gynaecology; 2009; 33; 720-729.

Obesity has increased dramatically throughout the world over the last two decades. Carrying out an ultrasound examination on an obese patient is difficult due to an impaired acoustic window. This article outlines the challenges associated with the imaging of obese and overweight pregnant patients. Several recommendations are made in order for individual practitioners to overcome these challenges. In order to ensure adequate assessment of limbs and extremities, it is recommended that a trans-vaginal scan be done at 12 to 15 weeks of gestation to visualize certain anatomic structures which may be otherwise difficult to visualize.

<http://www.isuog.org/nr/rdonlyres/2fe72ec8-f561-49f1-8acd-bae0a1e26121/0/edschoicepaladinijun09.pdf>

8. Maternal Obesity, Excessive Gestational Weight Gain and Pregnancy Outcomes

Saskatchewan Prevention Institute.

This review conducted by the Saskatchewan Prevention Institute provides a report of findings from a review of the literature on excessive gestational weight gain, maternal obesity and pregnancy outcomes.

Obesity tends to disproportionately affect lower socioeconomic groups, (including those who dwell in rural communities and those who are ethnic minorities). Within Canada, those with excessive gestational weight gain tend to be Aboriginal, have lower levels of education and be young mothers. The most common health effect of maternal obesity on the newborn is a large-for-gestational-age neonate (macrosomia). Macrosomia is associated with caesarean births, birth asphyxia, prolonged labour, cephalopelvic disproportion, birth trauma and increased risk of perinatal mortality. The most common health effects on the mother are hypertension, preeclampsia, diabetes and the need for a caesarean section. Recent research suggests that the in-utero environment may program the fetus for an elevated risk of obesity during childhood, adolescence and adulthood. Limited data exists regarding effective interventions for obese, pregnant women.

<http://www.preventioninstitute.sk.ca/uploads/Maternal%20Obesity%20Excessive%20Gestational%20Weight%20Gain.pdf>

9. Effects of Interventions in Pregnancy on Maternal Weight and Obstetric Outcomes: Meta-Analysis of Randomised Evidence

Thangaratinam S, Rogozinska E, Jolly K et al.
British Medical Journal; 2012; 344:e2088.

This systematic review and meta-analysis evaluates the effects of dietary and lifestyle interventions on maternal and fetal weight and also aims to quantify the effect of these interventions on obstetric outcomes. Forty-four (44) randomised controlled trials were found to evaluate the effects of diet and physical activity on maternal gestational weight. Dietary and lifestyle interventions in pregnancy were found to be able to reduce maternal gestational weight gain and improve outcomes for both the mother and child. Interventions based on diet were found to be the most effective.

<http://www.bmj.com/content/344/bmj.e2088>

10. Obesity in Pregnancy Hinders Women's Ability to Fight Infection

A recent study by Dr. Sarbattama Sen and colleagues found that pregnant women who are obese are less able to fight infections than those who are not. This could negatively impact their baby's health after birth and later in life.

<http://www.sciencedaily.com/releases/2011/05/110501183657.htm>

11. Pre-pregnancy Obesity Linked to Child Test Scores

Research by Rika Tanda and colleagues at Ohio State University found that even after controlling for all other variables, compared to those at a healthy pre-pregnancy weight, women who are obese prior to pregnancy are at a higher risk of having children with lower cognitive function (as measured by reading and math tests taken between the ages of 5 to 7 years).

<http://www.sciencedaily.com/releases/2012/05/120508142544.htm>

12. Barriers Encountered When Recruiting Obese Pregnant Women to a Dietary Intervention

Knight BA and Wyatt K.

Nursing Times; 2010; 106 (32); 20-22.

There is a great deal of perceived sensitivity surrounding obesity in pregnancy. A study by Knight and Wyatt found that health care professionals' discomfort surrounding raising the issue of obesity with patients, serves as a barrier to the recruitment of study participants into obesity studies.

<http://www.ncbi.nlm.nih.gov/pubmed/20879641>

13. Obesity in Pregnancy Problems and Potential Solutions

McKnight JR, Satterfield MC, Li X et al.

Frontier in Bioscience; 2011;1;3; 442-452.

A study conducted by McKnight and colleagues found that in animal models, calorie restriction and moderate exercise are safe methods of stopping weight gain and inducing fat loss. It was also found that therapeutic drugs that activate the AMP-activated protein kinase signalling pathway might be effective at rectifying pathological conditions in these patients. It was also found that dietary supplementation with L-arginine might be beneficial for managing overweight patients by reducing fat accumulation.

<http://www.ncbi.nlm.nih.gov/pubmed/21196324>

14. Barriers to Addressing Overweight and Obesity Before Conception

Callaway LK, O'Callaghan MJ, and McIntyre HD.

The Medical Journal of Australia; 2009;19; 191 (18); 425-428.

A study by Callaway and colleagues found that potential barriers to addressing overweight and obesity before pregnancy include poor uptake of routine pre-pregnancy health activities, unsuccessful weight loss attempts, inadequate advice regarding pre-pregnancy weight loss and inaccurate self-categorization of weight.

<http://www.ncbi.nlm.nih.gov/pubmed/19835534>

III. RESOURCES

15. Maternity and Newborn Clinical Network Statewide Clinical Guideline: Care of the Obese Pregnant Woman and Weight Management in Pregnancy

Maternity and Newborn Clinical Network, 2011.

This guide for clinicians outlines information specific to the care of obese pregnant women. Topics covered include facility capabilities, transport capacity, pre-pregnancy care, the development of pregnancy care plans, antenatal care, weight management, maternal investigations (such as blood tests

and ultrasounds), anaesthetic considerations, nutrition, physical activity, intra-partum care, postpartum care, breastfeeding, inter-pregnancy care, and pregnancy after bariatric surgery.

[http://docs.health.vic.gov.au/docs/doc/C9EED157DE732F7ECA257987007F25F4/\\$FILE/Care%20of%20the%20Obese%20Pregnant%20Woman.pdf](http://docs.health.vic.gov.au/docs/doc/C9EED157DE732F7ECA257987007F25F4/$FILE/Care%20of%20the%20Obese%20Pregnant%20Woman.pdf)

16. Obesity in Pregnancy

Davies, GA, Maxwell C, McLeod L, et al.

Journal of Obstetrics and Gynaecology Canada; 2010;32 (2); 165-73.

Davies and colleagues reviewed the existing literature and provide recommendations for the counselling and management of obese pregnant patients. It is recommended that the issue of weight loss be raised prior to conception. Women should be encouraged to enter pregnancy with a BMI of less than 30.

Obese women should receive counselling about nutrition and weight gain. The results of this study may also be found in the Society of Obstetricians and Gynaecologists of Canada Clinical Practice Guideline: Obesity in Pregnancy.

<http://www.ncbi.nlm.nih.gov/pubmed/20181319>

<http://www.sogc.org/guidelines/documents/gui239ECPG1002.pdf>

17. Obesity and Pregnancy: Clinical Practice Guideline

Institute of Obstetricians and Gynaecologists, Royal College of Physicians of Ireland and Clinical Strategy and Programmes Directorate, Health Service Executive, 2011.

This clinical practice guideline informs health care practitioners about providing care to patients who are pregnant and obese. This set of guidelines covers topics such as pre-pregnancy care, obesity and miscarriage, obesity and antenatal care, obesity and diet, obesity and exercise, obesity and caesarean section, obesity and hypertension, obesity and stillbirth, obesity and gestational diabetes, obesity and labour, obesity and venous thromboembolism, obesity and breastfeeding and hospital equipment and facilities.

<http://www.rcpi.ie/Faculties/Institute%20of%20Obstetricians%20and%20Gynaecologists%20Down/Obesity%20and%20Pregnancy%20-%20Clinical%20Practice%20Guidelines.pdf>

18. Obesity in Pregnancy: Deliver Sensitive Care

Heavey, E.

Nursing 2011.

This guide provides nurses with the information necessary to effectively work obese pregnant patients. It is suggested that nurses establish a trusting relationship with their patients in order to sustain their willingness and desire to seek prenatal care and make healthy lifestyle changes. Practitioners must ensure that they are interacting with their patients in a nonjudgmental manner. Practitioners must also prepare their patients for the likelihood of a prolonged pregnancy and labour, as well as the possibility of a caesarean delivery. This guide also outlines the various health challenges that obese and pregnant women may face, as well as the challenges that their babies may face.

<http://www.nursingcenter.com/pdf.asp?AID=1235583>

http://www.nursingcenter.com/prodev/ce_article.asp?tid=1235838

19. CMACE/RCOG Joint Guideline: Management of Women with Obesity in Pregnancy

Centre for Maternal and Child Enquiries and Royal College of Obstetricians and Gynaecologists, 2010. This guideline provides health care practitioners with information on a variety of topics related to obesity in pregnancy. These topics include: pre-pregnancy care, information-giving during pregnancy, risk assessment during pregnancy, thromboprophylaxis, maternal surveillance and screening, planning labour and delivery, care during childbirth, postnatal care and follow-up after pregnancy, local guidelines, areas for further research, auditable standards and education of health professionals. <http://www.llevadores.cat/html/publicacions/docs/Joint-CMACE-RCOG-Guidelines---Management-of-Obesit.pdf>

20. Weight Management Before, During and After Pregnancy

National Institute for Health and Clinical Excellence, 2010. This reference guide provides health care practitioners with information regarding dietary and physical activity interventions for weight management, before, during and after pregnancy. Information is provided as to how pregnant women can achieve and maintain a healthy weight. While the information in this guide does pertain to overweight patients, it does not include the clinical management of women who are obese during pregnancy. http://www.nhs.uk/Planners/pregnancyareplanner/Documents/NICE_reference_weight_management_pregnancy.pdf

21. Preconception Health: What's Weight Got to do With It?

Hellerstedt W, Rossi M, and Maxfield B, nd. A life course approach involves the examination of past exposures and environments when treating current conditions. Chronic diseases, (including obesity), are often the result of cumulative exposures over the lifecourse, which interact in a way that might result in a health condition. This presentation uses a lifecourse perspective to examine obesity in women and identify the risks associated with maternal obesity. This presentation also describes the rationale for pre-conception interventions to reduce maternal obesity. <http://www.health.state.mn.us/divs/fh/mch/preconception/handouts/slides4thconf.pdf>

22. Overweight and Obesity in Pregnancy: A Review of Evidence

Bernier J, and Hanson Y, 2012. This review of the literature provides practitioners and patients with information on the implications of maternal overweight and obesity, women's experiences of overweight and obesity during pregnancy (including the social determinants of health and the psychological and emotional effects of overweight

and obesity during pregnancy), and the provision of care and support to pregnant women who are overweight or obese.

<http://www.pwhce.ca/pdf/overweightObesityPregnancy.pdf>

23. Exercise and Pregnancy Lab

The R. Samuel McLaughlin Foundation - Exercise and Pregnancy Lab (EPL) was established in 1989 to conduct research investigating the effects of exercise on the pregnant woman and her fetus. We welcome questions from individuals about the risks and benefits of exercise during pregnancy, and are pleased to share the current Canadian Guidelines for Exercise During Pregnancy.

A research lab from Queen's University & The EPL have developed a Physical Activity Readiness Medical Examination Form (**PARmed-X for Pregnancy**), a medical prescreening form for use by physicians and midwives to evaluate pregnant patients who want to join prenatal fitness classes, and for ongoing monitoring of exercising patients.

<http://www.uwo.ca/fhs/EPL/>

24. Canada Prenatal Nutrition Program (CPNP)

The Canada Prenatal Nutrition Program (CPNP) funds community-based groups and coalitions to develop or enhance services that address the needs of prenatal and recently postpartum women facing challenging circumstances that put their health, and the health of their infants at-risk.

Program elements of CPNP include the provision of:

- nutrition counselling;
- food preparation training;
- breastfeeding education and support;
- education and support on infant care and healthy child development; and
- Referrals or counselling on health and lifestyle issues

<http://66.240.150.14/intervention/821/view-eng.html>

IV. FEATURED BEST START RESOURCES

25. Healthy Eating for a Healthy Baby

Best Star Resource Centre, 2012.

This guide produced by Best Start Resource Centre provides mothers-to-be with information about perinatal weight gain, healthy eating habits, Canada's Food Guide, nutrients, vegetarian eating, physical activity and protection from food poisoning.

Also available in French, Arabic, Filipino, Hindi, Punjabi, Spanish, Simplified Chinese, Tamil and Urdu.

http://www.beststart.org/resources/nutrition/healthyeating/HealthyEatingForAHealthyBaby_Eng_fnl_212.pdf

About This Bulletin

The Best Start Resource Centre thanks you for your interest in, and support of, our work. Best Start permits others to copy, distribute or reference the work for non-commercial purposes on condition that full credit is given. Because our MNCHP bulletins are designed to support local health promotion initiatives, we would appreciate knowing how this resource has supported, or been integrated into, your work (mnchp@healthnexus.ca). Please note that the Best Start Resource Centre does not endorse or recommend any events, resources, or publications mentioned in this bulletin.

Other Health Nexus communications:

OHPE - The free weekly Ontario Health Promotion E-mail bulletin (OHPE) offers a digest of news, events, jobs, feature articles on health promotion issues, resources, and much more, to those working in health promotion. <http://www.ohpe.ca/>

Click4HP - An open, facilitated public listserv, Click4HP is an international dialogue on health promotion. Participants exchange views on issues and ideas, provide leads to resources, and ask questions about health promotion. <https://listserv.yorku.ca/archives/click4hp.html>

The Maternal Newborn and Child Health Promotion (MNCHP) Network - A province-wide electronic forum for service providers working to promote preconception, prenatal and child health. <http://www.beststart.org/services/MNCHP.html>

Health Promotion Today / Promotion de la santé aujourd'hui - Our bilingual blog keeps you informed of news and topics related to health promotion. <http://www.blogs.healthnexusante.ca/>

Follow us on **Twitter** to stay up to date on all things related to health promotion. https://twitter.com/Health_Nexus

View our video resources on **YouTube** and **Vimeo** (<http://www.youtube.com/user/healthnexusante>, <https://vimeo.com/user9493317>)

We encourage you visit the website of our new **3M Health Leadership Award** to find out how you can support community health leadership and honour your own community leader by nominating them for this national award. <http://www.healthnexus.ca/leadershipaward>

NEW ! The Best Start Aboriginal Sharing Circle (BSASC) Network is a distribution list designed for service providers working with Aboriginal Peoples in areas of preconception, prenatal and child health. The network is a forum to share news, ideas, questions and best practices. <http://lists.beststart.org/listinfo.cgi/bsasc-beststart.org>

En français:

Le bulletin *francophone* **Le Bloc-Notes** est un outil indispensable pour les intervenants professionnels qui aiment être à l'affût des nouveautés dans le domaine de la promotion de la santé. <http://www.leblocnotes.ca/>

Le **Bulletin de santé maternelle et infantile** est un bulletin électronique mensuel à l'intention des fournisseurs de services œuvrant dans le domaine de la promotion de la santé maternelle et infantile. <http://www.meilleurdepart.org/services/bulletins.html>

Promotion de la santé aujourd'hui / Health Promotion Today – Notre blogue bilingue sur lequel on partage des nouvelles et réflexions liées à la promotion de la santé. <http://www.blogs.healthnexusante.ca/>

Suivez-nous sur **Twitter** pour demeurer au fait de tout ce qui concerne la promotion de la santé. https://twitter.com/Nexus_Sante

Visionner nos ressources vidéo sur **YouTube** et **Vimeo** (<http://www.youtube.com/user/healthnexusante>, <https://vimeo.com/user9493317>)

Nous vous encourageons à visiter le site Web de notre nouveau **Prix 3M de leadership en santé** pour découvrir de quelle façon vous pouvez appuyer le leadership en santé communautaire et honorer un chef de file de votre milieu en présentant sa candidature à ce prix national. <http://www.nexusante.ca/prixdeleadership>