

Complications in pregnancy and during birth if the mother is obese (BMI>30) or morbidly obese (BMI>35)

This leaflet is for pregnant women with a body mass index (BMI) of more than 30. It explains why you have been referred to a consultant antenatal clinic, what complications may occur, how your pregnancy will be monitored because of the increased risks and who is available to help and advise you during your pregnancy. If you have any questions or concerns, please speak to your midwife or doctor.

At the present time, about 1 in 5 women¹ are obese when they book with their community midwife. Compared to women, whose weight is in the normal range, having a Body Mass Index (BMI) of 30 or more at booking can increase the possibility of complications in pregnancy, although most women will have a successful pregnancy and a healthy baby.

BMI is a relationship between the height and weight and is used to determine if a person is of a healthy weight for their height or not. Mothers whose BMI is between 30 and 35 are at a slightly increased risk of complications^{2a} when compared to a mother whose BMI is under 30, but this leaflet explains the complications and the maternity care you may receive to monitor your health if you have a BMI of 35 or over. Risks increase as BMI rises further.

Pregnancy is not the time for drastic measures to lose weight, but there is some scientific evidence that there are benefits to controlling weight gain during pregnancy^{2b}. There is no evidence to support the old 'eating for two' myth at all. Your midwife or doctor can give advice about sensible eating during pregnancy. You may be able to access weight management classes in your area - please check with your doctor. A typical weight gain during pregnancy is around 2-2½ stone or 12-15kg. The baby, placenta and waters surrounding the baby account for about 11lb (5kg) of the weight, and the increased blood in the circulation for about another 3lb (1.5kg).³ The rest is mainly energy stored as fat on the breasts and buttocks, which is there to provide calories for breast milk. Thus, breastfeeding really can help mothers lose weight after childbirth.

What are the risks for obese/morbidly obese mothers?

The complications^{2c} seen in larger mothers, compared to those with a normal weight are:

High blood pressure including pre-eclampsia (a serious, life-threatening, multisystem disease affecting the mother and fetus)	About twice as common, affecting up to 1 in 5 mothers.
Diabetes	5-6 times more common, affecting 5 in every hundred.
Clots in the legs or lungs (Deep Vein Thrombosis or Pulmonary Embolism DVT/PE)	Increased to 2-5 times the risk of a woman with a normal body mass index.
Caesarean section delivery	Twice as likely, affecting about 6 out of ten.
Wound infections after Caesarean section	About twice more likely, affecting 1 in 15 obese mothers.
Prolonged hospital stays	Up to 4 times more days.
Big babies (over 10lbs or 4.5kg)	Twice as likely, 1 in 50.
Obese children	3 times more likely to be overweight at age 7 than a child of normal weight parents.
Stillbirth or neonatal (newborn) death	Up to 4 times more likely (4 per thousand compared to 1 per thousand).

Your care during pregnancy

If your BMI is between 30 and 35, your maternity care will be co-ordinated by your community midwife. She will examine you for problems such as high blood pressure and large babies. If she has any concerns about you or your baby's health, she will send you for an appointment to see an obstetrician (doctor specialising in pregnancy and childbirth).

If your BMI is 35 or greater, your midwife will arrange a routine appointment at the hospital. This will enable you to access scans in later pregnancy to check the baby's size or presentation (whether the baby is head first or breech) and be screened for diabetes. This is done by means of a timed blood test, taken two hours after eating a specially designed breakfast menu. We will give you an information sheet with all the food options on it, and explain in detail how to plan your breakfast and then get the blood test taken.

If your BMI is above 35, and you are delivered by Caesarean section, we will use a special dressing to cover the wound for 7 days. This is called a PICO dressing and is found to reduce wound infections in women with a higher BMI. Further information will be given as required, if you have any questions then please ask your midwife.

We routinely offer mothers with a BMI >40 at booking an appointment to see a consultant anaesthetist during pregnancy to discuss pain relief for birth and have a personalised care plan made.

Mothers whose BMI is above 50 needs to have particular specialist equipment available during their admissions to hospital. This includes beds, hover mattresses etc. There are specific

anaesthetic concerns which need to be discussed and planned for. More information can be found on the information sheet 'Why do I need to see an anaesthetist during my pregnancy?'

Where to give birth

If you have had a spontaneous vaginal birth before, without any complications, and your booking BMI was less than 40, you may be able to opt for a birth in the Midwifery Led Unit. Mothers whose previous births have been less straightforward, or whose BMI was 40 or greater at booking are more likely to require some level of medical assistance with their labours or deliveries, such as having an epidural, delivery by forceps, ventouse or by Caesarean section, and the Delivery Suite is where these procedures are carried out. There are a number of pieces of equipment, such as chairs, beds and lifting devices specifically designed for use by mothers with a BMI of more than 35 at their booking appointment. Many of these are only available on the main Delivery Suite, and postnatal ward, not in the Midwifery Led Birthing Unit.

Postnatal care

The increased risk of a DVT (see table above) means that after the birth of your baby you will be prescribed daily injections of heparin for 3-5 days (see guideline *Postnatal prophylaxis against thromboembolism*), but these will not delay your discharge home if everything else is going normally.

As studies⁴ have shown that obese mothers are more likely to have obese children by the age of four years, your GP, midwife or health visitor should be able to give more advice about healthy eating for the whole family.

References:

1. Patient databases, Royal Berkshire Hospital Maternity unit.
2. CMACE/RCOG Joint Guideline: Management of Women with Obesity in Pregnancy, March 2010,
 - (a) page 4, section 4.1
 - (b) page 6
 - (c) appendix 3
3. <http://www.babycentre.co.uk/pregnancy/antenatalhealth/physicalhealth/weightgain/> and also in most undergraduate textbooks for doctors and midwives
4. Oken E. *Obstet Gynecol Clin North Am.* 2009 Jun;36(2):361-77, ix-x

Further information

NHS Website www.nhs.uk/Planners/pregnancyareplanner/Pages/Overweight.aspx

For more information about the Trust, visit our website www.royalberkshire.nhs.uk

This document can be made available in other languages and formats upon request.

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