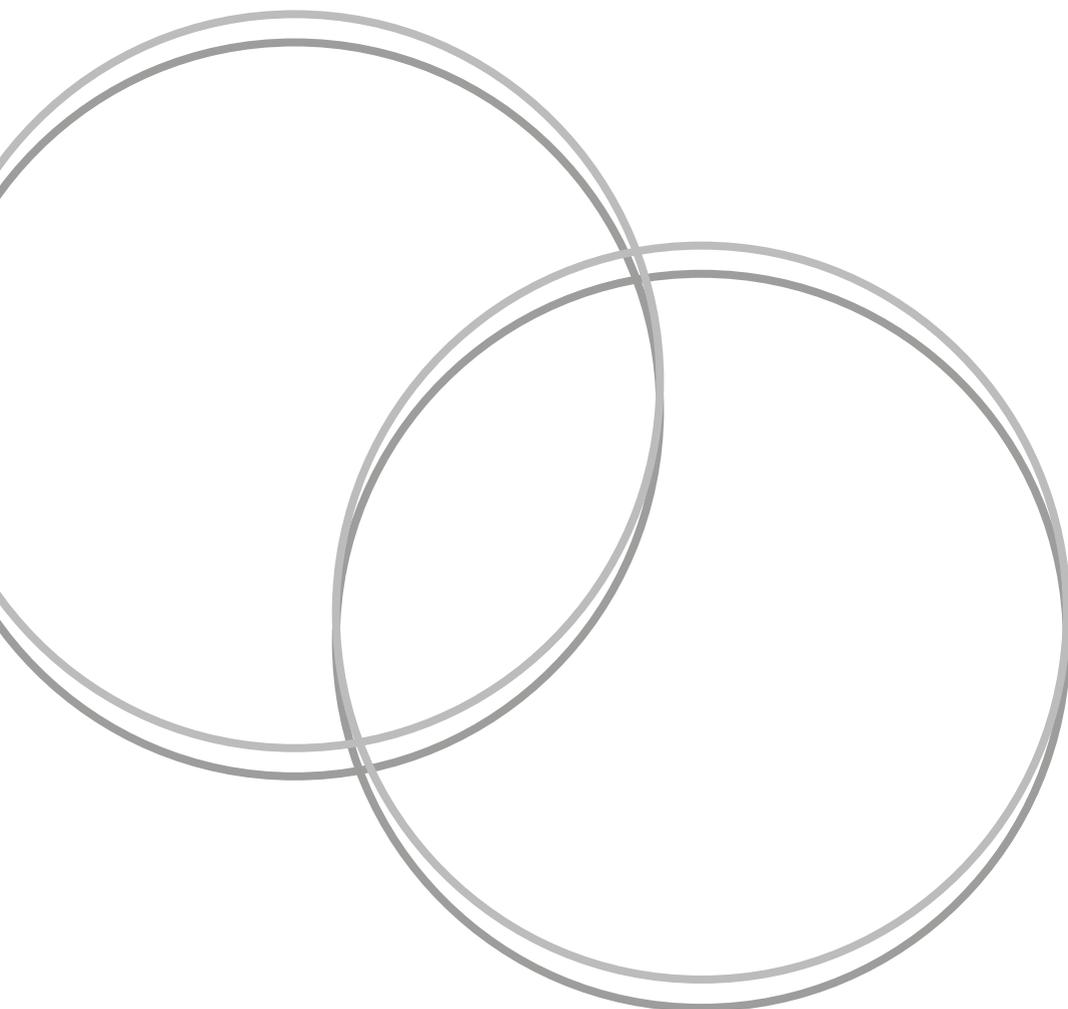


Pregnancy and body mass index (BMI)

Information leaflet



Most women with a higher BMI will have a straightforward pregnancy and birth. However, having a higher BMI does increase the chance of certain complications during pregnancy and birth. This leaflet outlines these complications and tells you how we can help reduce risk to ensure you have the most healthy and positive childbirth experience possible.

When will my BMI be calculated in pregnancy?

Your BMI will be calculated at your first antenatal booking appointment.

We also recommend that you are weighed during your antenatal checks throughout pregnancy.

You can also calculate your BMI by using the calculator on the NHS website: **www.nhs.uk/Tools/Pages/Healthyweightcalculator.aspx**.

BMI measurements

- BMI less than 18.5 = underweight
- BMI 18.5 - 25 = healthy weight
- BMI over 25 = overweight
- BMI over 30 = obese
- BMI over 40 = seriously obese

Weight gain during pregnancy

Every pregnant woman gains (puts on) weight differently so there are no official guidelines for how much weight you should gain. Some of the weight you gain in pregnancy will be body fat. The other factors causing weight gain will include your baby, placenta, amniotic fluid, your growing breasts, the increased blood you need and natural fluid retention.

Most women put on between 10kg (22lb) and 12.5kg (28lb) during pregnancy.

Your healthy weight gain during pregnancy may depend on the weight you were before you got pregnant. There are no official guidelines in the UK but the American College of Obstetricians and Gynecologists say that:

- women who are underweight (with BMI of under 18.5) are recommended to put on 13 to 18kg (28 to 40 lbs)
- women in the healthy weight range (with a BMI of 18.5 to 24.9) are recommended to put on 11 to 16kg (25 to 35lbs)
- women who are overweight (with a BMI of 25 to 29.9) are recommended to put on 7 to 11kg (15 to 25lbs)
- women who are affected by obesity (with a BMI of 30 or more) are recommended to put on 5 to 9 kg (11 to 20 lbs)

Healthy eating during pregnancy

Eating healthily during pregnancy will help your baby to develop and grow. It will also help to keep you well. It is recommended that you have a low fat (unsaturated fat), low sugar and high fibre diet. You don't need to go on a special diet, but it's important to eat a variety of different foods every day to get the right balance of nutrients that you and your baby need. Make sure you drink plenty of water and try to eat 5 portions of fruit or vegetables each day. You should also try to eat foods rich in iron (e.g. red meat, bread, green vegetables, pulses and fortified breakfast cereal).

It is best to get vitamins and minerals from the foods you eat, but when you're pregnant you need to take some supplements as well. This is to make sure your body is getting everything it needs to support your growing/developing baby.

If you have a BMI of 30 or more, we recommend that you take a high dose folic acid supplement of 5mg (milligrams) daily for the first 12 weeks of pregnancy. Folic acid helps to reduce the risk of neural tube defects (defects of the brain and spinal cord). You are also advised to take a daily supplement of 25mcg (micrograms) of vitamin D throughout your pregnancy and while you are breast feeding. Vitamin D regulates the amount of calcium and phosphate in your body; these are needed to keep your bones and teeth healthy.

You can get information on healthy eating from your midwife, GP and at:

<http://www.nhs.uk/conditions/pregnancy-and-baby/pages/healthy-pregnancy-diet.aspx#close>

We do not recommend dieting in pregnancy but there are positive steps you can take to help improve the wellbeing of you and your baby. More information can be found on the NHS choices website:

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

Exercise in pregnancy

Moderate-intensity physical activity will not harm you or your baby. We recommend that you try to do at least 30 minutes per day; this could include swimming or brisk walking.

If you exercised regularly before pregnancy you should be able to continue with no adverse effects. However, the aim of recreational exercise is to stay fit, rather than to reach peak fitness.

If you have not exercised routinely before your pregnancy then you should begin with no more than 15 minutes of continuous exercise, three times per week, increasing gradually to daily 30 minute sessions.

For more information on exercise in pregnancy visit:

<https://www.nhs.uk/pregnancy/keeping-well/exercise/>

How having a higher BMI can affect pregnancy

Research shows us that women who have a higher BMI when they become pregnant have an increased chance of complications during their pregnancy and labour. If you weigh over 100kg (15st 10lb) or your BMI is more than 35 at the start of your pregnancy, your midwife will refer you to an obstetrician (a hospital doctor).

The obstetrician (hospital doctor) will explain any additional risks to you and your baby, and will also discuss how these risks can be reduced with you.

Gestational diabetes

Diabetes that is first diagnosed in pregnancy is known as gestational diabetes. If your BMI is 30 or above, you are three times more likely to develop gestational diabetes compared with women with a BMI under 25. You will be offered a test for gestational diabetes between 24 and 28 weeks. If the test shows that you have gestational diabetes, you will be referred to a specialist doctor for further testing and treatment as required.

High blood pressure and pre-eclampsia

Women with a higher BMI have an increased chance of developing high blood pressure and pre-eclampsia (a condition in pregnancy that can cause high blood pressure and protein in the urine). If you have a BMI of 30 or above, your chance of developing pre-eclampsia is 2 to 4 times higher compared to those with a BMI under 25. Your midwife or doctor will check your blood pressure and urine at each of your appointments to screen for pre-eclampsia.

Your chance of developing pre-eclampsia may be further increased if:

- you are over 40 years old
- you have had pre-eclampsia in a previous pregnancy
- your blood pressure was already high before pregnancy

If you have these or other risk factors, your health care professional may recommend that you take a low dose of aspirin to reduce the chance of you developing pre-eclampsia.

Urinary tract infections

Some women with a higher BMI may be more prone to urinary tract infections (urine/bladder infections). Your midwife can refer you to a doctor if this becomes a problem for you.

Pelvic joint pain

Women with a higher BMI are more likely to have pelvic joint pain during pregnancy (called pelvic girdle pain or PGP). It is important to stay active as much as possible during your pregnancy. If you experience any pelvic pain please speak to your midwife. They can give you advice and refer you for physiotherapy (exercise and advice to help relieve muscle and joint pain), if needed. The following links may also be helpful:

<http://www.ouh.nhs.uk/patient-guide/leaflets/files/10680Ppelvicgirdle.pdf>

<http://www.pelvicpartnership.org.uk/>

Blood clots

A higher BMI is linked to an increased chance of developing blood clots in your legs (venous thrombosis) or in your lungs (pulmonary embolism), which can be life-threatening. Pregnancy itself also increases your chance of developing a blood clot (thrombosis). If you are overweight and pregnant, the chance is further increased. Your chance of developing a blood clot will be assessed at your first antenatal appointment and will be monitored during your pregnancy. You may be offered injections of a medication called low-molecular-weight heparin to reduce your chance of developing a blood clot. This is safe to take during pregnancy.

Mental health

The mental health and well-being of all pregnant women is discussed at the first antenatal (booking) appointment. Having a higher BMI slightly increases your chance of developing mental health problems in pregnancy and after giving birth. Your healthcare professional will check on your mental health and well-being throughout your pregnancy to ensure you have access to any help and advice you may need.

Checking the position and size of your baby

If you have a higher BMI it may be difficult for midwives and doctors to find out which way your baby is lying and how big it is. Feeling your tummy (called abdominal palpation) can be less accurate and occasionally it may be necessary to have another scan to check the growth of your baby.

Ultrasound scanning

All women are offered two scans during pregnancy. If you have a higher BMI it may be more difficult for the sonographer (the person performing the scan) to see the baby clearly. This may limit how well we are able to check on your baby's growth and development.

Risks to the baby

- The overall likelihood of a miscarriage in early pregnancy is 1 in 5, but if you have a BMI of 30 or above, the chance of this increases to 1 in 4.
- If you have a higher BMI before pregnancy or in early pregnancy, this can affect the way your baby develops in the uterus (womb). Around 1 in 1000 babies in the UK are born with neural tube defects (problems with the development of the baby's skull and spine), but if your BMI is 30 or above, the chance of this is around 2 in 1000. The chance of a neural tube defect can be reduced by taking a Folic acid (5 mg) supplement in first 12 weeks of pregnancy.
- If you have a higher BMI, you are more likely to have a baby weighing more than 4kg, which increases the chance of complications for you and your baby during the birth. If your BMI is 30 or above, your chance of complications during the birth is doubled from 7 in 100 to 14 in 100 compared with women with a BMI of between 20 and 30.
- The overall likelihood of stillbirth in the UK is 1 in every 200 births. If you have a BMI of 30 or above, the chance of this increases to 1 in every 100 births.

How having a higher BMI can affect labour and birth

If you have a higher BMI there is an increased chance of complications during labour and birth, particularly if your BMI is 40 or more. These complications include:

- an induction of labour (when labour is started artificially). Your hospital doctor would discuss this with you if needed. An induction of labour is more likely to fail if you have a higher BMI, than if you are within a healthy weight range.
- a longer labour
- an emergency caesarean birth
- more complications during and after a caesarean birth, such as heavy bleeding and wound infection
- difficulties in hearing (monitoring) the baby's heartbeat
- difficulty in delivering baby's shoulders (shoulder dystocia)
- heavy bleeding after your baby is born
- problems having epidurals and drips inserted
- anaesthetic complications
- less chance of having a successful vaginal birth after a previous caesarean section
- a baby who has breathing difficulties after birth
- your baby being born before 37 weeks of pregnancy (preterm birth).

However, it is worth remembering that many women with a higher BMI will have vaginal births with no complications.

Where should your baby be born?

All women with a BMI of 40 or over

If your **BMI is over 40** at your booking appointment, we recommend that you give birth on Delivery Suite at John Radcliffe hospital. This is to make certain that the doctors and midwives can respond quickly if any problems occur.

If this is your first baby

If you have a **BMI of 35 or less** and no other complications, you can choose to give birth at home, at one of the Midwife Led Units (MLUs) or the Delivery Suite at the John Radcliffe Hospital.

If your **BMI is over 35** at your booking appointment, we recommend that you give birth on the Delivery Suite at the John Radcliffe Hospital. This is to make certain that the doctors and midwives can respond quickly if any problems occur.

If you have had a vaginal birth before

If your **BMI is 35 to 39.9**, you are well in this pregnancy and you have had a normal birth before with no complications, you can choose to give birth at home, at one of the Midwifery Led Units (MLUs) or on the Delivery Suite at the John Radcliffe Hospital.

Care in labour

Remaining upright and active in labour will promote uncomplicated labour and birth. It will also lower the risks associated with not moving, such as developing blood clots and skin damage from pressure areas.

If your BMI is under 40 you may use the birthing pool as long as you can get in and out unaided. We would advise you not to use the birthing pool if your BMI is over 40 at booking. This is because we may not be able to move you out of the pool quickly in the event of an emergency.

It may be necessary to monitor your baby's heartbeat continuously. A fetal scalp electrode (sometimes called a clip) may be recommended

when it is difficult to monitor your baby's heartbeat by listening in through your abdomen (tummy). This is attached to the top of your baby's head through your vagina and cervix (neck of the womb) and then connected to the monitor.

You will be given an omeprazole tablet regularly when you are in active labour. This will help to reduce the acid content of your stomach. This is a precaution in case you need a caesarean section.

We may recommend that you have a cannula sited in early labour to avoid delays in the event of an emergency. A cannula is a fine plastic tube that is inserted into a vein. It is used to give medicine and fluid very quickly if needed.

Epidurals and pain relief

If you have a **BMI over 40**, you will be offered an appointment to see a senior member of the anaesthetic team, usually in the later stages of your pregnancy. If you have had an appointment for the same reason in a previous pregnancy, you may not receive another appointment. However, if you feel you would like to speak to an anaesthetist, your community midwife can arrange this for you.

The purpose of the anaesthetic appointment is to assess you and to discuss your options for pain relief in labour. We will also discuss the types of anaesthetic you may receive if you need to give birth to your baby in theatre.

If you plan to have an epidural in labour, it may be helpful. This is because if you do need to go theatre for a procedure (where we help you to give birth to your baby using forceps, or by performing a caesarean section for example), an epidural can normally be used to make you numb (pain free from the top of your tummy to the tips of your toes). This means you would be able to stay awake during the procedure. This can also be safer than having a general anaesthetic (going to sleep), because the risks of having a general anaesthetic in pregnancy are higher in women with a raised BMI.

If you choose to have an epidural for pain relief, you may be offered it early in labour, because it can be more difficult to insert

an epidural if you have a high BMI. For this reason, if you consent to having an epidural early in labour, it gives the anaesthetist more time to carry out the procedure.

A helpful website with more information about epidurals and anaesthetics can be found at <https://www.labourpains.com/home>.

Delivering the placenta (afterbirth)

To reduce your chance of having a postpartum haemorrhage (heavy bleeding after childbirth), your midwife or doctor will recommend that you have an injection to help with the delivery of the placenta. This injection can sometimes make women feel sick.

Your health after the birth of your baby

After giving birth, some of your risks continue. By working together with your healthcare professionals, you can minimise the risks in a number of ways.

Prevention of a blood clot (thrombosis)

You have an increased chance of developing a blood clot (thrombosis) for a few weeks after the birth of your baby. Your individual chance of this happening will be checked after your baby is born. To reduce the chance of a blood clot developing after your baby is born:

- try to be active as soon as you feel comfortable. Avoid sitting still for long periods.
- wear special compression stockings (called TEDS), if you have been advised you need them.
- if you have a BMI of 40 or above, you may be offered blood-thinning injections (low-molecular weight heparin treatment) for at least 10 days after the birth of your baby. It may be necessary to continue taking this for 6 weeks.

Monitoring your blood pressure

If you developed high blood pressure or pre-eclampsia during pregnancy, you have an increased chance of having high blood pressure for a few weeks after the birth of your baby. We will continue to monitor this (and treat if necessary) until your blood pressure returns to normal.

Information and support about breastfeeding

How you choose to feed your baby is a very personal decision. Breastfeeding has many health benefits for you and your baby. Breastfeeding may also help you lose weight after giving birth. Breastfeeding help and support is available if you need it from your healthcare professionals. Local breastfeeding support groups are also available in the community. You can ask your midwife for details of the breastfeeding support group nearest to you.

Urinary incontinence

Some women may experience problems with bladder weakness during and after pregnancy. It is important that you do your pelvic floor exercises during your pregnancy and after the birth of your baby. You can find further information by following the link below:

www.nhs.uk/Conditions/pregnancy-and-baby/Pages/your-body-after-childbirth.aspx

We also have a useful leaflet available about pelvic floor exercises. Please ask for this from your midwife or a member of staff or follow this link:

<http://www.ouh.nhs.uk/patient-guide/leaflets/files/4895Pchildbirth.pdf>

Healthy eating and exercise

Continue to follow the advice on healthy eating and exercise. If you want to lose weight once you have had your baby, you can discuss this with your healthcare professional.

Contraception after your baby is born

Your weight will not affect most types of contraception, and most contraception will not make you put on weight. However, contraceptives that contain the hormone oestrogen are not suitable for women who have a very high BMI. The contraceptive injection has been linked to a small amount of weight gain if used for 2 years or more.

Planning for a future pregnancy

If you have a BMI of 30 or above, whether you are planning your first pregnancy or are between pregnancies, it is advisable to try to lose weight. This can increase your ability to become pregnant and have a healthy pregnancy and reduce additional risks to you and your baby during pregnancy. If you have fertility problems, it is also advisable to try to lose weight. Having a BMI of 30 or above may mean that you would not be eligible for fertility treatments such as IVF (in-vitro fertilisation) under the National Health Service (NHS).

Your healthcare professional can offer you advice and support to help you lose weight. Remember that even a small weight loss can bring significant health benefits. You may be offered a referral to a dietician (a person that offers advice on healthy eating) or an appropriately trained healthcare professional. If you are not yet ready to lose weight, we can offer you contact details for help and support for when you are ready.

Further information and support

There are many postnatal groups to help you lose unwanted weight once you have had your baby. Your midwife will be able to give you more information about these. There is a lot of help available to support you in losing weight and starting exercise. Your GP and practice nurse are a good place to start.

This information leaflet is intended to give you information and answer any of your immediate questions. Please feel free to discuss any further questions and concerns with your midwife or doctor.

There is also useful information on the Royal College of Obstetricians and Gynaecologists website:

www.rcog.org.uk/womens-health/clinical-guidance/why-your-weight-matters-during-pregnancy-and-after-birth

Further information

If you would like an interpreter, please speak to the department where you are being seen.

Please also tell them if you would like this information in another format, such as:

- Easy Read
- large print
- braille
- audio
- electronic
- another language.

We have tried to make the information in this leaflet meet your needs. If it does not meet your individual needs or situation, please speak to your healthcare team. They are happy to help.

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