

## Patient information factsheet

# Raised body mass index (BMI) in pregnancy, labour and birth

Having a raised body mass index increases the likelihood of complications for both you and your baby during pregnancy, labour and birth. This factsheet explains these risks, the steps you can take to reduce them and the care you will receive.

If you have any questions or concerns, please discuss them with your midwife or obstetrician.

### What is body mass index (BMI)?

Your body mass index (BMI) is your 'height to weight' ratio. It is a useful way to determine whether a person is underweight, a healthy weight or overweight. Your midwife will calculate your BMI at your 'booking appointment' and record it on your pregnancy notes.

A BMI of 25 to 29.9 means you're overweight, and a BMI of 30 or above means you are very overweight, or obese. Research shows that women who have a BMI above 30 at the start of their pregnancy are more likely to develop complications during their pregnancy, labour and birth.

### Your wellbeing during pregnancy

#### Eating healthily

It is important to eat well during pregnancy.

Please make sure you:

- eat a low fat, low sugar and high fibre diet
- drink plenty of water
- eat at least five portions of fruit or vegetables each day, including vitamin C and iron rich foods
- take a vitamin D supplement (10 micrograms) throughout pregnancy and breastfeeding to help reduce the risk of rickets (softening of the bones)
- take a folic acid supplement.

If your BMI is greater than 30, the Department of Health recommend that you take 5mg of folic acid per day for the first 12 weeks of pregnancy. This is a higher dose of folic acid than the dose found in pregnancy specific multi-vitamins. Please ask your GP for a 5mg folic acid prescription.

Taking folic acid reduces the risk of neural tube defects. The neural tube is the structure that eventually develops into the baby's brain and spinal cord. It's not known what causes neural tube defects, such as spina bifida but a lack of folic acid is a contributing factor. Overall around 1 in 1000 babies are born with neural tube defects in the UK but if your BMI is over 40, your risk is three times that of a woman with a BMI below 30.

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Your midwife will be able to offer you further advice and information.

You may also find it beneficial to:

- complete the 'Healthy mum, healthy baby' questionnaire in your maternity notes to see where you can make positive changes to your lifestyle.
- book a place on the 'Health in Pregnancy' workshop. This workshop is about maintaining or improving your health in pregnancy and is held at the Princess Anne Hospital. Please contact our maternity information and support services team on telephone: **023 8120 6052** for more information.

### Appropriate weight gain

Your midwife will offer to weigh you at regular intervals throughout your pregnancy.

Research suggests that if your BMI is 25 to 30, then a healthy weight gain in pregnancy is about 7 to 11 kg (15 to 25 pounds). If your BMI is over 30 at the start of pregnancy, your midwife will advise you to limit your weight gain to less than 10kg (22lb) throughout pregnancy.

It is possible for you to keep your weight gain throughout pregnancy to a minimum by making healthy changes to your diet and increasing your level of activity. Please do not try to lose weight through extreme dieting as this may harm the health of your unborn baby.

Your midwife will also discuss a referral to weight management services with you. These are available free of charge within Southampton and Hampshire. Seeking their support during and after your pregnancy is strongly recommended.

### Exercise

By exercising during pregnancy, you can:

- prevent excessive weight gain
- reduce your risk of pre-eclampsia and gestational diabetes
- positively influence your mood
- enable your body to adapt to pregnancy (this helps you to cope with labour and assists with your recovery after birth)

Throughout pregnancy you should aim for at least 30 minutes of moderate exercise most days of the week. Begin with 10-minute exercise sessions and gradually increase your exercise frequency. Avoid getting overheated and drink plenty of water.

If you weren't active before your pregnancy, you should not suddenly start strenuous exercise.

Small changes in your daily routine can really help. These may include:

- going for a walk or a swim with a friend (please speak to your midwife about the free swimming available to women in Southampton)
- getting off the bus a stop early (or parking your car further away) and walking the rest of the way
- taking the stairs instead of using the lift (if you're going up lots of floors, get out of the lift a floor or two early and take the stairs the rest of the way)

Remember that every activity counts and there are many different opportunities to exercise and remain active while pregnant. Please discuss this further with your midwife.

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You may also wish to try a pregnancy exercise class. Many women find these provide a good opportunity to meet other mums-to-be. Ask your midwife or local leisure centre for information about pregnancy exercise classes you can join. You can also find details of local classes online.

If you join (or already attend) a fitness class that isn't just for pregnant women, it is important to tell the instructor you are pregnant so activities can be adjusted if appropriate.

### Your antenatal appointment schedule

The potential for complications to develop in pregnancy increases with your BMI. If your BMI is greater than 40 your midwife will see you more regularly during your pregnancy. This allows your midwife to carefully monitor the health and wellbeing of you and your baby, and identify any developing complications promptly.

It may also be appropriate for you to see an obstetrician. Your midwife will discuss this with you.

### Screening for diabetes

The likelihood of you developing diabetes in pregnancy (gestational diabetes) increases with your BMI. If you weigh over 100kg (15 stone 7) or have a BMI over 30 at your booking appointment, you will be offered an oral glucose tolerance test to check for diabetes. Your midwife will arrange this appointment for when you are 26 weeks pregnant (unless you would benefit from an earlier appointment). Your midwife will discuss this with you.

### Monitoring your blood pressure

Women who have a high BMI are at a higher risk of developing high blood pressure. If you develop high blood pressure in pregnancy, you may also develop a more serious condition called pre-eclampsia, which can affect the health of you and your baby.

Your risk of pre-eclampsia may be additionally increased if you are over 40 years old, if you had pre-eclampsia in a previous pregnancy or if your blood pressure was high before pregnancy. Your midwife will be assessing your health including your blood pressure at each antenatal visit and will discuss the use of a low dose of aspirin (75mg) to reduce your risk of developing high blood pressure if appropriate.

### Please call the maternity day assessment unit or New Forest Birthing Centre if you experience:

- persistent headaches
- sudden swelling of the face
- hands and feet
- blurred vision
- pain below your ribs, especially on the right hand side
- flashing lights or spots in front of your eyes

Maternity day assessment unit (Telephone: **023 8120 4463**)

New Forest Birthing Centre (Telephone: **023 8074 7690**)

An appointment for assessment will be arranged.

### Your risk of blood clots

Pregnant women are ten times more likely to develop blood clots (venous thrombosis) than

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women who are the same age and not pregnant. On average, one to two women in every 1000 will develop a venous thrombosis during pregnancy or just after delivery.

You are even more likely to develop blood clots if your BMI is above 30 at your booking appointment. You are therefore encouraged to stay well-hydrated and active during pregnancy and will be advised to wear support stockings, if you are admitted to hospital.

Your midwife will assess your individual risk of developing blood clots throughout your pregnancy, when you go into labour and again immediately after birth. Women who are most at risk of developing blood clots may be prescribed additional preventative medication.

You can find further information in the booklet called 'Understanding blood clots or venous thromboembolism (VTE) in pregnancy and after birth'. You can download this from [www.uhs.nhs.uk/maternity](http://www.uhs.nhs.uk/maternity) or ask your midwife for a copy.

### Your BMI and your baby

All women are offered two scans in their pregnancy. These scans check your baby's major organs and physical characteristics. If you have a high BMI, especially with body fat around your abdomen (tummy), the ultrasound image will not be as clear. This limits your sonographer's ability to assess your baby's growth and development.

It is also more difficult to estimate growth or determine your baby's position using abdominal palpation. A further scan to assess your baby's growth or position may be necessary later in your pregnancy. Your midwife will discuss this with you.

Studies suggest that having a high BMI is associated with an increased risk of miscarriage and stillbirth. The overall risk of a miscarriage under 12 weeks is one in five (20%), but if you have a BMI over 30, your risk increases to one in four (25%). The risk of stillbirth increases with increasing BMI and the reason for this is largely unknown. The overall risk of stillbirth in the UK is one in 200 (0.5%), but if you have a BMI over 30, your risk is doubled to one in 100 (1%).

It is important to become familiar with your baby's daily pattern of movements. Contact the maternity day assessment unit on **023 8120 4463** if you have any concerns or your baby's movements are reduced.

### Labour and birth

#### Your place of birth

While many women with a high BMI have straightforward births, the likelihood of complications is increased.

These complications include:

- induction of labour
- a longer labour
- a caesarean section
- difficulties in hearing the baby's heartbeat
- larger babies and difficulties delivering the baby's shoulders
- heavy bleeding after the baby is born
- problems having epidurals and drips inserted
- a lower chance of having a successful vaginal birth after a previous caesarean section

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Birthing in an environment with direct access to obstetricians (doctors who specialise in pregnancy and birth), anaesthetists (who administer epidurals and general anaesthetic) and neonatologists (specialists in newborn care) is recommended if you are:

- having your first baby and your BMI is 35 or over at your booking appointment
- having your second or a subsequent baby and your BMI is 40 or over at your booking appointment

The labour ward at the Princess Anne Hospital provides you with immediate access to specialist equipment for women with an increased BMI together with operating theatres and emergency care. You will still have choices about the care you receive and will be encouraged to participate in any decision making processes.

If you have had a previous uncomplicated vaginal birth and your booking BMI is 35 to 40 it may be more appropriate for you to give birth in a midwifery-led birth centre. If this is the case, you may wish to consider the use of water (the birthing pool) for labour and birth.

Please discuss place of birth with your midwife while you are pregnant so you can make an informed decision. Your midwife may refer you to a consultant midwife for further discussion and a personalised plan.

### **Epidural and anaesthetics**

If you have a BMI over 45 you will be referred to a senior anaesthetist at the Princess Anne Hospital during your pregnancy.

Your appointment in the anaesthetic clinic during your pregnancy will allow the anaesthetist to:

- **examine your back**  
If you have an increased BMI, anaesthetic procedures such as an epidural or spinal can take longer to be effective as it is more difficult to put the catheter (thin plastic tube which carries painkillers to the nerves in your back) in place. It may also take longer for the anaesthetic to work properly.
- **assess your airway**  
Additional time or equipment may be required to give you a safe general anaesthetic. This allows preparations for your labour and birth to be made.
- **assess your veins**  
It is essential to identify where a blood sample could be taken or a cannula could be inserted if required. A cannula is a thin tube that is placed in the vein and used to take blood and give fluid and drugs if necessary.

This appointment will give you an opportunity to discuss your pain relief options in labour. Your anaesthetist will also develop a plan in case you need an emergency anaesthetic.

Pain relief (such as pethidine or epidural anaesthesia) can make it harder for you to be active and mobile during labour. However, if you have an increased BMI, it may be easier to insert an epidural earlier in your labour. It would then be in place if you needed to have a caesarean section, a forceps delivery or a ventouse delivery.

If you do not have an epidural and there is not enough time to give you one in an emergency, you may need to have a general anaesthetic.

For most women in labour it is safer to have a regional (epidural and/or spinal) rather than a

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general anaesthetic in an emergency. The risks associated with a general anaesthetic increase as your BMI increases. Your anaesthetist will discuss these risks with you. A general anaesthetic for caesarean section or forceps would also mean you are asleep when your baby is born.

When deciding which pain relief is appropriate for you, it is important to discuss the length of time it would take to provide you with an effective epidural if you suddenly decide you would like one. Your anaesthetist will be able to provide you with information relevant and specific to you.

### **Eating and drinking during your labour**

If your booking BMI is greater than 35, you are more likely to need a caesarean section during labour. Please discuss the reasons for this with your midwife or obstetrician.

For this reason your midwife will advise you not to eat once your labour is established. You will be offered an antacid tablet (Ranitidine) every six to eight hours. This will reduce the build-up of acid in your stomach. Please continue to drink clear fluids (water or isotonic drinks).

### **Your placenta**

You are advised to have an injection of syntocinon (an artificial form of the hormone oxytocin) immediately after your baby is born to facilitate the birth of your placenta.

Syntocinon encourages your uterus (womb) to contract and reduces the length of time between the birth of your baby and the birth of your placenta. This reduces the likelihood of heavy bleeding after your baby is born.

If your BMI is greater than 40 your midwife will recommend you have a drip containing syntocinon as well as the injection to reduce the likelihood of heavy bleeding in the first few hours after birth.

### **Your health after your baby is born**

If you weigh over 120kg (18 stone, 12 pounds) staying at the Princess Anne Hospital for your initial postnatal care (care after your baby is born) is recommended. The equipment at the New Forest Birth Centre will not be suitable to meet your needs.

### **Your risk of thrombosis**

You are at increased risk of thrombosis during the first few weeks after the birth of your baby. To reduce this risk it is important to drink plenty of fluids and remain active and mobile. You may be advised to wear specialist support stockings or be prescribed additional preventative medication.

### **Diabetes**

For many women who have had gestational diabetes, blood sugar levels return to normal after birth and medication is no longer required. Your blood sugar levels will be checked after your baby is born. Depending upon the result, your GP may retest you for diabetes when your baby is six weeks old. Please discuss any questions you may have with your midwife or GP.

### **Pelvic floor and continence**

Some women 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

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your baby. Please visit [www.uhs.nhs.uk/maternity](http://www.uhs.nhs.uk/maternity) to download your copy of the 'Shape-up after pregnancy' leaflet for more information.

If you have a caesarean section, you are at increased risk of developing an infection in your wound. There are steps you can take to reduce this risk.

Please visit [www.uhs.nhs.uk/maternity](http://www.uhs.nhs.uk/maternity) to download your copy of the 'Maternity services guide' and the 'Care and advice after having a caesarean section' factsheet for more information, or speak to your midwife.

### Healthy eating and exercise

You can help your physical and emotional well-being by eating a well-balanced healthy diet and remaining active after you have had your baby. There are also benefits for your baby. If you or your partner are overweight, your baby will have an increased risk of obesity and diabetes in later life.

You may wish to:

- **do some postnatal exercises**

Your muscles will take time to recover after pregnancy and birth. By actively working towards fitness, you will feel better and may avoid future health problems. Download your copy of 'shape up after pregnancy' from [www.uhs.nhs.uk/maternity](http://www.uhs.nhs.uk/maternity)

- **join a postnatal exercise class**

Many instructors let you do the exercise class with your baby at your side, and some include your baby. Ask your midwife or health visitor for details of local classes. If you're going to a class that isn't specifically for postnatal women, make sure you tell the instructor that you've recently had a baby.

- **become more active**

Use the stairs instead of the lift or, for short journeys, walk instead of taking the car. Walking is great exercise, so try to get out as much as you can.

- **try swimming**

If you take your baby with you, try to have someone else there with you so you get a chance to swim.

It is not too late to seek support from weight management services. Please speak to your midwife, health visitor or GP for more information.

### Feeding your baby

Breastfeeding has many benefits for you and your baby. It can also help you with weight loss. Find out as much as you can about breastfeeding before you have your baby. You will feel more confident when you start breastfeeding your baby if you have prepared beforehand.

You can prepare by:

- booking a place on our 'Breastfeeding Workshop'.

This is an opportunity to learn about the importance of good positioning and attachment and the many positions you can adopt to feed your baby. The workshop will also discuss the common problems which may arise when breastfeeding and how to address them. Please contact maternity information and support services on telephone: **023 8120 6052** for more information.

- reading the tips for successful breastfeeding in the 'Off to the Best Start' booklet which is available to download from the Unicef website: [www.unicef.org.uk/babyfriendly](http://www.unicef.org.uk/babyfriendly)

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- finding out about breastfeeding support groups in your local community.  
Breastfeeding Babes is a drop-in service at the Princess Anne Hospital which is available Monday to Friday, 10am to 1pm on F Level.

You can always discuss any questions or concerns you may have with your midwifery team.

### Further information

If you would like any further information or have any questions, please speak to your midwife or obstetrician who will be happy to help.

### Useful links

'Health in pregnancy' on the University Hospital Southampton website:

[www.uhs.nhs.uk/OurServices/Maternityservices/Health-in-pregnancy.aspx](http://www.uhs.nhs.uk/OurServices/Maternityservices/Health-in-pregnancy.aspx)

Baby Buddy App

This useful app includes lots of video information of all aspect of health in pregnancy

[www.bestbeginnings.org.uk/baby-buddy](http://www.bestbeginnings.org.uk/baby-buddy)

NHS

[www.nhs.uk](http://www.nhs.uk)

Weight management support services

[www.southamptonhealthyliving.org.uk](http://www.southamptonhealthyliving.org.uk)

Wessex Healthier Together

You can gain information on all aspects of pregnancy and looking after babies and children.

[www.what0-18.nhs.uk](http://www.what0-18.nhs.uk)

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