Pregnancy and body mass index (BMI)

Your body mass index (BMI) is your height to weight ratio, and is a useful way to determine whether a person is underweight, overweight or obese.

Your BMI is recorded on your pregnancy notes and is a useful measurement for pregnancy.

- An underweight person has a BMI less than 18.5
- A person of a healthy weight has a BMI 18.5 to 24.9
- An mildly overweight person has a BMI 25 to 30
- An moderately overweight person has a BMI 30 to 35
- A seriously overweight person has a BMI over 35

Raised BMI and pregnancy
Research is showing that women who have a high BMI at the start of their pregnancy are at a higher risk of complications during their pregnancy and labour.

If you have a BMI over 40 at the start of your pregnancy your midwife will refer you to an obstetrician.

Diabetes
The risk of developing diabetes in pregnancy is related to your body size and your BMI. The higher the BMI, the greater the risk of developing diabetes. Women who weigh over 100kg (or have a BMI over 30) will be offered a special test for diabetes (oral glucose tolerance test) when they are 26 weeks pregnant.

High blood pressure
Women who have a high BMI are at a greater risk of developing high blood pressure. Your midwife or doctor will be assessing your health at each antenatal visit and will check your blood pressure regularly. Developing high blood pressure in pregnancy can lead to a more serious condition called pre-eclampsia.

Urinary tract infections
Some women with a high BMI may be more prone to urinary tract infections. Your midwife can refer you to a doctor if this becomes a problem for you.

Blood clots
A raised BMI is linked to an increased risk of blood clots. This is especially true if you have had a blood clot before or a first degree relative has had one before they were 50 (mother, father, brother, sister or any other children). Your midwife will refer you to an obstetrician if they have concerns about this.

To reduce this risk all pregnant women are encouraged to stay well hydrated and active during pregnancy. When admitted to hospital you will be advised to wear support stockings. Those women that are most at risk of developing blood clots may be prescribed additional medication. Your risk of having blood clots is assessed by your midwife and doctor throughout your pregnancy and postnatal period.
BMI and your baby
We recommend a higher dose of folic acid (5mg) for the first 12 weeks of pregnancy to reduce the risk of neural tube defects, such as spina bifida. A vitamin D supplement (10micrograms) is also recommended throughout pregnancy and breastfeeding to help reduce the risk of rickets (softening of the bones).

All women are offered two scans in their pregnancy. These scans check the baby's major organs and physical characteristics. If you have a high BMI, especially with body fat around your tummy, the ultrasound image will not be as clear. This limits our ability to pick up any problems with the baby and reduces the ability to see how well the baby is growing.

It is also more difficult to determine which way your baby is lying using abdominal palpation.

Studies suggest that having a high BMI is associated with an increased risk of stillbirth. If your BMI is above 35 the risk of stillbirth is twice as high as the general population (8.6 per 1000 births compared to 3.9/1000 births). The risk of stillbirth increases with increasing BMI and the reason for this is largely unknown. Like with every mum-to-be, it is important to monitor your baby's movements and contact your midwife or Day Obstetric Unit if you have any concerns.

Eating healthily during pregnancy
It is important to eat well during pregnancy. It is recommended that you have a low fat, low sugar and high fibre diet. Make sure you drink plenty of water too. Try and eat five portions of fruit or vegetables each day, including vitamin C and iron rich foods. Your midwife will be able to advise you further. We will weigh you regularly during pregnancy if your BMI is above 30 at booking.

There are no formal UK guidelines defining appropriate weight gain during pregnancy, however, research suggests 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, then it is not healthy to gain more than 5-9 kg (11-20 pounds). It is important for all mums to stay physically active during pregnancy. From regular walks to aqua natal classes there are many different options for exercise. Please discuss this further with your midwife.

BMI and labour
Women who have a high BMI may experience more difficulties in labour. However, it is worth remembering that many women have straightforward births. We know that women who have a high BMI are at an increased risk of having:

- An 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
- Less chance of having a successful vaginal birth after a previous caesarean section
- Baby having breathing difficulties after birth

If your BMI is 35 or over at your booking appointment we recommend that you give birth on the main labour ward. This is to ensure that doctors and midwives can respond quickly if any problems occur. It may be necessary to monitor your baby's heartbeat continuously. A fetal scalp electrode (sometimes called a clip) may be recommended if it is difficult to monitor the baby's heartbeat through your abdomen. This is attached to your baby's scalp through your vagina and cervix and is then connected to
the monitor. You will be given a Ranitidine tablet regularly in active labour, in order to reduce the acid content of your stomach. This is a precaution in case a caesarean section is needed.

In the labour ward there is specialised equipment for women with an increased BMI, such as a larger blood pressure cuff, beds suitable for ladies who weigh over 120kg (18 ½ stone), and special beds/theatre trolley for larger ladies who are having an epidural. A risk assessment form will be completed if you weigh over 18 stone or have a BMI over 35. This helps staff to plan for your needs, and access the correct equipment when you are admitted.

We are keen to support you to have a normal labour and birth, especially if your BMI is on the higher side. Due to the increased risks around the time of the actual birth, we do not advise you to give birth in the birthing pool. However, with some individual birth planning we can usually facilitate your use of the pool for the first stage of labour. Please ask your midwife to refer you to the consultant midwife clinic if your BMI is over 35 at booking and you wish to use the pool.

If you have a BMI less than 35, have appropriate weight gain, and no other complications, you can choose between a home birth, or delivery on a midwife led unit such as Broadlands Birth Centre or the New Forest Birth Centre.

**Epidurals and pain relief**

If you have a BMI over 45 you will be referred to a senior anaesthetist at the Princess Anne Hospital during your pregnancy. This appointment is for the anaesthetist to assess you and to discuss your options for pain relief in labour, as well as develop a plan should you need an emergency anaesthetic. Having an increased BMI can make it more difficult for an epidural to be inserted. It is safer to have an epidural than a general anaesthetic because there are more complications associated with a general anaesthetic if a person has an increased BMI.

The epidural can be more difficult to site and may take longer to place if your BMI is raised, so it may be better to insert it early in the labour. It would then be in place if you were to require a caesarean section or delivery of your baby more quickly by forceps or ventouse.

**BMI and your health after baby is born**

We advise you to stay at the Princess Anne Hospital for your initial postnatal care if you weigh over 120kg. Equipment at the New Forest Birth Centre is not suitable to meet your needs.

You are at increased risk of developing an infection if you have a caesarean section wound. Careful attention to hygiene will help to prevent this from happening. Please refer to your ‘Maternity Services Guide’ and the ‘Care and Advice after having a Caesarean Section’ leaflet for more information.

Some ladies 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 refer to the ‘Pelvic Floor Exercise Sheet’ for more information.

**Feeding your baby**

Women with a high BMI may experience more problems breastfeeding. It can be more difficult to get yourself and the baby into a comfortable position. It is important to note that with good support and perseverance you will normally succeed. Breastfeeding can also help weight loss.

Breastfeeding Babes, at the Princess Anne Hospital is a drop-in service, available Monday to Friday, 10am to 1pm on E Level. There are also breastfeeding support groups in your local community.
Support
There are many postnatal groups to help you 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 G.P 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.

Further information

The pregnancy book
Available as an online resource, the pregnancy book provides you with a complete guide to a healthy
pregnancy, labour and birth, and the first few weeks with your new baby. Visit the Department of Health
website www.dh.gov.uk/publications to download your copy.

Healthy eating – NHS Choices
Find out how to follow a diet that’s healthy for you and your baby, and which foods to avoid at
www.nhs.uk/livewell/healthy-eating

The Obstetric Anaesthetists’ Association – www.oaa-anaes.ac.uk
Follow the ‘Information for mothers’ link for further information on why you may need to see an
anaesthetist during you pregnancy. This is also a useful website if you wish to find out more about
caesarean section or pain relief options in labour.