

If your baby is not growing as well as expected

Sometimes a baby's growth in the uterus slows down. This is called 'intrauterine growth restriction' (IUGR). These babies are often 'small for gestational age' (SGA) or 'small for dates' (SFD).

If this happens to your baby, you and your baby will need extra monitoring and your baby may need to be born earlier than planned.

Risks associated with IUGR

- Impaired development in pregnancy
- Intrauterine death
- Distress in labour
- Oxygen deprivation in labour (asphyxia)
- Meconium aspiration during the birth
- Low blood sugar after birth and consequent complications

Your baby is more likely to have IUGR if:

- You smoke
- You are over 35, especially if you are over 40
- You exercise vigorously every day.
- You have had a previous SGA baby, or if you yourself were SGA
- You have had a previous stillbirth
- You have chronic hypertension (high blood pressure) or hypertension associated with pregnancy (including pre-eclampsia)
- You have heavy bleeding in your pregnancy
- You are over weight or under weight
- You have a poor diet, particularly low fruit consumption before pregnancy
- You use cocaine
- Your baby has a genetic abnormality

How might these factors cause growth restriction?

Growth restriction is caused by not enough nutrients or oxygen getting to your baby, or a reduced ability of your baby to use these supplies. Carbon monoxide from smoking blocks uptake of oxygen, for example. High blood pressure can cause the placenta to work less efficiently by causing damage to the lining of blood vessels and tissues. Sometimes these problems can be caused by genetic factors.

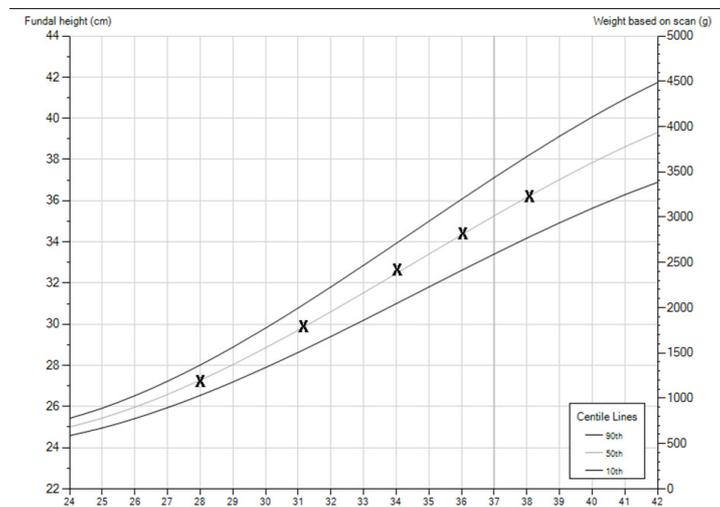
How do we know your baby has IUGR?

When you book for care with our Maternity Services, we prepare a customised growth chart for your baby. The chart is prepared using your height, weight, ethnic origin and number of babies you have had.

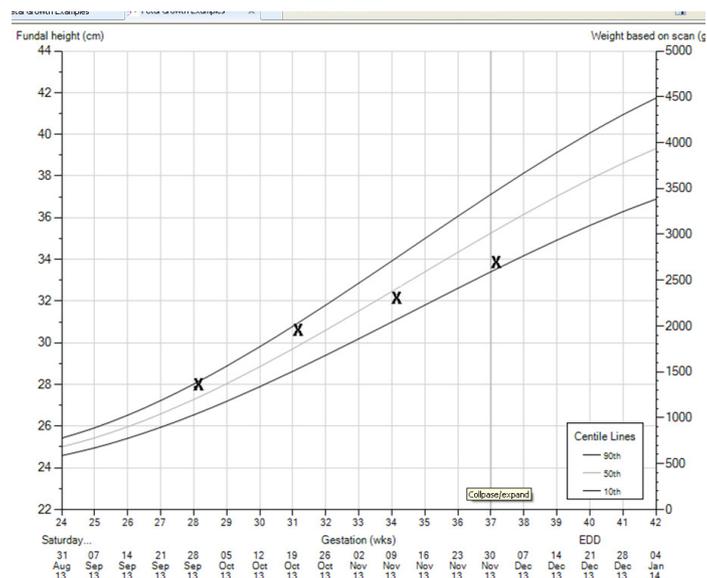
From about 26 weeks of pregnancy your midwife will measure your 'symphysis fundal height' at your antenatal appointments. This is the measurement from your pubic bone to the top of your uterus. She will plot this measurement on your customised growth chart.

The chart outlines three growth lines called the 10th, 50th and 90th centiles. Ideally the measurements will fall between the 10th and 90th centiles and will follow the shape of the curves.

The chart below is an example of normal average growth:



This chart shows that your baby may not be making the expected growth pattern:



What happens if IUGR is suspected?

In the second example, the midwife would refer you for an ultrasound scan to check the growth of the baby, and also the amount of amniotic fluid around the baby, which is also an indicator of your baby's wellbeing.

Your midwife will also ask you to be aware of your baby's movements and to contact a midwife if you think they are fewer than normal (see our patient information leaflet, 'How active is your baby?')

What happens next depends on the findings from this scan:

- If the baby's growth is estimated to be above the 10th centile and there is a normal amount of liquor around the baby, and the baby is head down, you can continue your care as before.
- If your baby's growth is estimated to be around the 10th centile, the blood flow to the baby through the uterine artery in the umbilical cord is assessed (Doppler scan) and another scan is done after two weeks to check the rate of the baby's growth.
- If the baby's growth is estimated to be below the 10th centile, the blood flow to the baby through the uterine artery in the umbilical cord is assessed (Doppler scan) and care continues according to the 'IUGR protocol' (see below).
- If the baby's growth is estimated to be below the 1st centile, the blood flow to the baby through the uterine artery in the umbilical cord is assessed (Doppler scan) and a referral is made to a Fetal Medicine Specialist Doctor.

IUGR protocol

- Weekly scans to measure liquor volume and Doppler flow.
- Fortnightly scans to measure growth.

If the growth returns to above the 10th centile on two occasions, then a woman can return to her previous normal pattern of care.

Planning the time of birth

When you give birth to your baby will depend on your individual circumstances. If it seems likely that you will need to have your baby before 37 weeks of pregnancy, you will be offered steroid injections to mature your baby's lungs. This is a course of two injections, 12 hours apart, usually into your thigh muscle. If your baby needs to be born by caesarean section, you will be offered the injections up to 39 weeks of pregnancy.

Your baby's care after birth

This will depend on each individual situation. Your baby may need extra care in 'Transitional care' on the Postnatal Ward or on the Neonatal Unit. Your 'Pregnancy Information' book and 'After the birth' book give more information about this, and the Neonatal Unit have a 'Parents' guide' which you will receive if your baby spends time there. Please talk to a midwife or doctor if you have any questions.

Outlook for a baby who had IUGR

The most important predictor for the wellbeing of the baby is the gestational age at birth. A very low birth weight can put the baby at high risk in the early months after birth, especially if he or she is very premature.

Babies born near or at term (37 weeks onwards) who have been deprived of nutrients tend to be hungry and feed well to gain weight. They can expect to be normal or only slightly reduced stature.

Babies with a birth weight of less than 2.5 kg have been shown to have a higher risk of high blood pressure, coronary artery disease, type 2 diabetes and thyroid disease in later life.

Can IUGR be prevented?

Smoking cessation can prevent some babies from growth restriction in the uterus.

Evidence for other forms of prevention, to prevent pre-eclampsia or dietary modification is not strong at present, but women at risk of hypertension are advised to take low dose aspirin in their pregnancy.

Other sources of information

NHS Choices

The UK's biggest health website, certified as a reliable source of health information: www.nhs.uk

Patient UK

Evidence based information on a wide range of medical and health topics. www.patient.co.uk

National Institute of Health and Care Excellence

<http://www.nice.org.uk/guidance/cg55/resources/information-for-the-public-care-of-women-and-their-babies-during-labour-pdf>

Patient Advise and Liaison Service (PALS)

PALS will act on your behalf when handling patient and family concerns, they can also help you get support from other local or national agencies. PALS, is a confidential service.

Princess Royal Hospital, Tel: 01952 282888

Royal Shrewsbury Hospital, Tel: 0800 783 0057 or 01743 261691

Website: www.sath.nhs.uk

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Your information

Information about you and your healthcare is held by the NHS. You can find out more about how we hold your information and how it is used on our website in your Pregnancy Information Book.

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