



NHS

NHS Foundation Trust

Patient information service
St Michael's Hospital

Listening to your baby's heartbeat during labour



Introduction

This leaflet is designed to give you information about how we care for your unborn baby while you are in labour. This leaflet is based on the recommendations made by the National Institute for Health and Care Excellence (NICE 2017).

It will discuss the benefits and disadvantages of different ways to monitor your baby's heart rate in labour, and it will answer some of your questions.

This leaflet is not meant to replace the information discussed between you and your midwife or doctor, but can act as a starting point for such a discussion or as a useful reminder of the key points.

What happens to my baby during labour?

Most babies cope with labour without any problems, but there are a few who have some difficulties. During contractions, blood cannot get through the placenta (afterbirth) so easily. This is normal, and most babies cope without any problems. If a baby is not coping well, this may be reflected in the pattern of their heartbeat.

One of the best ways of finding out if your baby is having difficulties is to listen to his or her heartbeat regularly throughout your labour. This is known as fetal monitoring.

There are two main ways in which this may be done:

1. intermittent auscultation
2. electronic fetal monitoring.

Intermittent auscultation

This means the midwife listens to your baby at intervals during your labour. The midwife may use a little cone-shaped device (pinard stethoscope). Alternatively, they may use a handheld device (Doppler ultrasound), which means you can also hear your baby's heartbeat.

The midwife will listen to your baby immediately after a contraction. They will listen long enough to check the heart rate of your baby. It is recommended that this is done every 15 minutes in the first stage of labour and every 5 minutes in the second stage of labour.

This is the best form of monitoring if you are healthy and have had a trouble-free pregnancy.

Benefits

You can move around freely during your labour.

You can use the pool for labour.

If the heart rate remains normal, there is a reduction in unnecessary interventions.

Risks

Very sudden or subtle changes in your baby's heart rate will not be detected. However, these are very rare in healthy babies.

Electronic fetal monitoring (EFM)

This form of monitoring means that your baby's heart rate is monitored continuously using a cardiotocograph (CTG) machine. The device consists of two sensors, which are held in place by elastic belts. One sensor is placed at the top of your tummy to monitor how often your uterus contracts. The other is held in place where your baby's heartbeat can be heard clearly. The CTG machine produces a printed graph (often called a 'trace') to show the pattern of your baby's heart rate. Your midwife will explain the pattern to you.

The sensors are connected to the monitor by long wires, which can make it more difficult to move around. We do have a number of wireless machines, which make it easier for you to be mobile. Some of them can also be used in the bath or shower. Ask your midwife if this is suitable for you.

When is EFM recommended?

If you have health problems, for example:

- diabetes
- infection
- high blood pressure
- problems with your heart or kidneys
- if you have had a previous caesarean section.

If you have had complications in your current pregnancy, for example:

- your pregnancy has lasted less than 37 weeks or more than 42 weeks
- you have experienced fresh vaginal bleeding

- your labour is being induced or assisted (augmented) using a hormone drip
- you have a twin pregnancy
- your baby is small (measured by scan)
- your baby is in the breech (bottom down) position
- your baby's movements have been reduced in the last 24 hours
- your waters have broken more than 24 hours before the onset of your labour
- your baby has passed meconium (opened bowels) into your waters.

You may wish to have continuous monitoring for your own reasons.

Benefits

The midwife can see the pattern of your baby's heart rate over a long period of time; this can be helpful if any further tests are needed.

EFM is very useful when there is an existing reason for the midwife or doctor to be concerned about your baby.

Risks

Your freedom of movement may be limited with EFM, so you may feel restricted.

If EFM is used when it is not really necessary, it may increase the chance of interventions in labour.

Where EFM is physically difficult (such as when the baby is in a very awkward position) your doctor may advise you to have a fetal scalp electrode put in place (we only recommend EFM when it is important and necessary). This simple piece of equipment is attached to your baby's scalp (the skin on their head) by the midwife during a vaginal examination.

Benefit

Good quality trace that will help midwives and doctors make a good assessment of your baby's wellbeing.

Risk

Small mark on the baby's head from the clip – this usually disappears within a few days.

If the midwife is concerned about your baby's heart rate pattern, they will contact a senior midwife or a doctor to see you. In most cases where the CTG is not entirely normal, the baby is actually coping very well. However, sometimes it can be difficult to know this from the CTG alone.

If a CTG does not appear normal, it may be recommended that a sample of blood (a fetal blood sample, or 'FBS') be taken from the top of your baby's head during an internal examination. The sample takes between 10 and 20 minutes to do, and is done to assess the oxygen level in your baby's blood. The result is obtained quickly, and will help the doctors to identify the best way to plan your labour and birth.

For further information about listening to your baby's heartbeat in labour, talk to your midwife or doctor.

You can also get further information from the National Institute for Health and Care Excellence (www.nice.org.uk) or the NHS Choices pregnancy and baby guide: www.nhs.uk/conditions/pregnancy-and-baby.

Notes

As well as providing clinical care, our Trust has an important role in research. This allows us to discover new and improved ways of treating patients.

While under our care, you may be invited to take part in research.
To find out more please visit: [REDACTED]

Help us prevent the spread of infection in hospital. Please make sure your hands are clean. Wash and dry them thoroughly/use the gel provided. If you have been unwell in the last 48 hours please consider whether your visit is essential.

Smoking is the primary cause of preventable illness and premature death. For support in stopping smoking contact
NHS Smokefree on 0300 123 1044.

Drinkline is the national alcohol helpline. If you're worried about your own or someone else's drinking, you can call this free helpline in complete confidence.
Drinkline on 0300 123 1110.

For access all patient leaflets and information please go to the following address:
[REDACTED]

Bristol switchboard: [REDACTED]

Weston switchboard: [REDACTED]
[REDACTED]



For an interpreter or signer please contact the telephone number on your appointment letter.



For this leaflet in large print or PDF format, please email patientleaflets@uhbw.nhs.uk.

