

Monitoring your baby's heartbeat in labour

A Guide for pregnant women, their partners and their families

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Ordering Information

The full guidance issued to the NHS is available from the NICE website (www.nice.org.uk). Copies can also be obtained by contacting the NHS Response Line on 0870 1555 455 and quoting ref. no. 23807.

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About this booklet

- Is for pregnant women, their partners and their families.
- Gives information to help you make choices about how your baby's heartbeats are monitored during labour.
- Gives information on how doctors and midwives monitor babies' heartbeats during labour in hospital.
- Is based on a national evidence based clinical guideline on Electronic Fetal Monitoring.

About clinical guidelines

Clinical guidelines are recommendations for good practice and exist to help patients and their healthcare team make the right decisions about health care. The guidelines are developed by teams of healthcare professionals, patients and scientists who look at the best evidence about care for a particular condition.

The advice in this booklet is adapted from a guideline produced by the Royal College of Obstetricians and Gynaecologists (RCOG) on behalf of the National Institute for Clinical Excellence (NICE) for the NHS in England and Wales.

Everyone has the right to be fully informed and to share in decision-making about health care. Health care staff should respect and take into account the wishes of the people in their care. Guidelines are recommendations for good practice. There may be good reasons why your treatment differs from the recommendations in this booklet, depending on your individual circumstances and wishes.

Why monitor a baby's heartbeat in labour?

The National Institute for Clinical Excellence (NICE) is a part of the NHS. It produces guidance for both the NHS and patients on medicines, medical equipment and clinical procedures and where they should be used.

If you go into hospital to give birth, various checks will be offered to you and your unborn baby. This will include listening to, or monitoring your baby's heartbeat.

Most babies come through labour without problems but there are a few who don't cope so well. During contractions blood can't 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.

What are the methods for fetal heart monitoring?

One of the best ways of finding out if your baby is having difficulties is to listen to their heartbeat regularly throughout the labour. This is known as Fetal Heart Monitoring.

Your baby's heartbeat can be monitored in a number of different ways which are explained on the following pages.

Your baby's heart rate can be measured either at regular intervals ('intermittent auscultation') or continuously (electronic fetal monitoring). Before starting any monitoring the midwife or doctor will listen to your heartbeat as well as your baby's heart to make sure they can tell them apart.

Intermittent auscultation (with a Pinard stethoscope or a hand held “Doppler”):

If you are healthy and have had a trouble-free pregnancy this is the recommended method of monitoring your baby’s heartbeat during labour. This should happen every fifteen minutes during the early stages of labour, increasing to once every five minutes (or once every contraction) in the later stages.

Current research evidence does not support the need for your baby’s heartbeat to be monitored using an electronic fetal heart monitor when you arrive at the hospital.

Intermittent Auscultation can be done using either a Pinard stethoscope, or a hand held ‘Doppler’. A Pinard is a trumpet shaped stethoscope. It enables your doctor or midwife to hear your baby’s heartbeat through your abdomen (tummy). A ‘Doppler’ is a small hand held device which looks like microphone. When it is placed against your abdomen it allows you, your midwife and your doctor to listen to your baby’s heartbeat using Doppler USS.

With intermittent monitoring, your ability to move around will only be limited when the baby’s heartbeat is being listened to. At other times you will be able to stand up and move around.

Continuous monitoring with an Electronic Fetal Heart Rate Monitor

Sometimes your midwife or doctor may offer and recommend continuous monitoring. This may be for a number of reasons relating to you or your baby’s health. The reasons for using continuous monitoring should be discussed between you, your midwife and/or your doctor. For example:

- Your midwife or doctor has already listened to your baby's heartbeat using a Pinard stethoscope or 'Doppler' and thinks that your baby may not be coping well.
- You have a health problem such as:
 - Diabetes
 - Infection
 - Pre eclampsia (high blood pressure)
 - Problems with your heart or kidneys
- Factors relating to your current or a previous pregnancy such as:
 - Your pregnancy has lasted more than 42 weeks
 - You are having Epidural analgesia (pain relief injected into the back)
 - You have had bleeding from your vagina during or before labour
 - Your labour is induced (started artificially) or strengthened with a drip (oxytocin)
 - You have a twin/triplet pregnancy.
 - You have previously had Caesarean Section
 - Your baby is small or premature
 - Your baby is a breech presentation (going to be born bottom first)

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

Continuous monitoring keeps track of your baby's heartbeat for the whole of your labour. This is done using a piece of equipment called an electronic fetal heart rate monitor which records your baby's heartbeat.

Usually elastic belts are used to hold sensors against your abdomen. These sensors detect your baby's heartbeat and are connected to the monitor.

The monitor records your baby's heartbeat as a pattern on a strip of paper. This is sometimes called a "trace" or a "CTG".

Your midwife or doctor will read and interpret the trace to help get an idea of how well your baby is coping with labour. It is normal for there to be changes in the pattern of the heartbeat, for example, when your baby is sleeping or moving around.

You should ask your midwife or doctor if you want the trace explained to you.

Being attached to the monitor can limit your ability to move around. Whilst it may be okay to stand up or sit down, it will not be possible to have a bath or move from room to room.

Occasionally a Fetal Scalp Electrode (sometimes called a "clip") may be offered and recommended. The reasons for doing this should be discussed with you. The electrode picks up your baby's heartbeat directly. It is attached to your baby's scalp through the vagina and is then connected to the monitor.

The trace may make your midwife or doctor suspect that your baby is not coping well. If this happens, further action may be taken. This could include immediate delivery of your baby or carrying out a further test called Fetal Blood Sampling.

What happens if a problem is suspected?

Occasionally the trace can make your midwife or doctor suspect that your baby is not coping well when in fact they are fine. Fetal blood sampling can help to clarify this and may avoid you having an unnecessary Caesarean Section. Compared with the monitor alone, it is a more accurate way of checking if your baby is not coping well.

Fetal blood sampling involves taking one or two drops of blood from your baby's scalp (through your vagina). This blood is tested for oxygen levels to show if your baby is not coping well with labour. The test can take between ten and twenty minutes.

There may be reasons why fetal blood sampling is not appropriate for you, for example if you have certain infections. Your midwife or doctor should discuss this with you.

For further information about fetal monitoring, and all other aspects of pregnancy and childbirth, talk to your midwife or doctor.

Everyone has the right to be fully informed and to share in decision-making about health care. You can discuss this guideline with your midwife or doctor. If you have access to the internet and would like to find out more about childbirth, visit the NHS Direct website www.nhsdirect.nhs.uk or telephone NHS Direct on 0845 4647.

Further Information

For further information about NICE, the Clinical Guidelines Programme or other versions of this guideline (including the sources of evidence) you can visit the NICE website at www.nice.org.uk. Full copies of the NICE guideline can be requested from 0870 1555 455, quoting the reference number 23807.

For other versions of the Clinical Guideline including sources of evidence for the recommendations made in this booklet contact The Clinical Effectiveness Support Unit, The Royal College of Obstetricians and Gynaecologists (RCOG) www.rcog.org.uk or efm@rcog.org.uk.

Acknowledgements

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MIDIRS (July 1996) “Listening to your baby’s heartbeat during labour” - one of the Informed Choice Series of information leaflets.