Monitoring your baby’s heartbeat during labour

Introduction
This information is adapted from the guideline produced by National Institute for Clinical Excellence (NICE) and gives you information to help you make informed choices about how your baby’s heartbeat is monitored in labour.

Why monitor a baby’s heartbeat during labour?
Most babies cope with the stress of labour without any problems but there are a few who don’t manage so well. During contraction blood flow to the placenta is reduced and your baby may get less oxygen. This is normal and most babies cope without any problems. When a baby is not coping well with labour, this can be reflected in changes in the pattern of their heartbeat. Listening to your baby’s heartbeat regularly throughout labour can identify these changes and is called fetal heart rate monitoring.

It is important to recognise that no kind of monitoring is perfect. There will always be a few babies who have problems in labour no matter what type of monitoring is used.

How is it done?
Your baby’s heart rate can be monitored in a number of different ways. It may be monitored at regular intervals (intermittent auscultation) or continuously (electronic fetal monitoring). Before starting any monitoring, the midwife will check your pulse rate as well as your baby’s heart rate to make sure they can tell them apart.

Current research does not support the routine monitoring of your baby’s heartbeat using an electronic fetal heart monitor when you arrive at the hospital.

Intermittent auscultation
If you are healthy and have had a trouble-free pregnancy, this is the recommended method of monitoring your baby’s heartbeat. Once you are in established labour, the midwife will listen to your baby’s heartbeat every 15 minutes, increasing to every 5 minutes (or after every contraction) in the second stage of labour.

It is usually performed using a hand held monitoring device and you and your midwife will be able to listen to your baby’s heartbeat.

With intermittent auscultation you will be able to move around except when the baby’s heartbeat is being listened to.

Continuous monitoring with an electronic fetal heart rate monitor
Continuous monitoring is done using an electronic fetal heart rate monitor, which records your baby’s heartbeat. Elastic belts are used to hold two sensors against your abdomen. These sensors detect your baby’s heartbeat and contractions when connected to the monitor.

The monitor records your baby’s heartbeat as a pattern on a strip of paper. This is sometimes known as a ‘trace’ or ‘CTG’.

Sometimes your midwife or doctor will recommend continuous monitoring. This will 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 and your midwife or doctor and may include:

- Your midwife has already listened to your baby’s heartbeat 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 previous pregnancy such as:

• Your pregnancy has lasted more than 42 weeks
• You are having epidural analgesia (continuous monitoring is recommended for a minimum of 30 minutes following epidural insertion or after any top-up doses).
• You have had bleeding from your vagina during or before labour
• Your labour has been induced or augmented with an infusion to help strengthen the contractions
• You have a twin pregnancy
• You have had a previous Caesarean section
• Your baby is small or premature
• Your baby is in the breech position (bottom first)
• You have had heparin treatment in pregnancy
• You request continuous monitoring for personal reasons.
• Your midwife or the doctor will 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.

Please ask the midwife or doctor if you want the trace explained to you.

Being attached to the monitor will limit your ability to move around. It is possible to stand up or sit down but it will not be possible to have a bath.

Occasionally, a fetal scalp electrode (sometimes called a ‘clip’) will be recommended. The reasons for doing this should be discussed with you. The electrode picks up your baby’s heartbeat directly and is attached to your baby’s scalp through the vagina and connected to the monitor.

What happens if a problem is suspected?
The CTG 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 a test called fetal blood sampling.

Fetal blood sampling will show whether or not your baby is coping with the stress of labour 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 coping or not.

Fetal blood sampling involves taking one or two drops of blood from your baby’s scalp (through the vagina). The blood is tested for oxygen levels and acidity and can take between ten and twenty minutes.

In some cases fetal blood sampling is not appropriate for example if you have certain infections. Your midwife or doctor will discuss this with you.

Further Information
For further information about monitoring your baby’s heartbeat and any other aspects of pregnancy and childbirth, please talk to your midwife or doctor.

You may find the following sources of information useful:
NICE intrapartum care guideline (December 2014) available at www.nice.org.uk

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<th>Department: Maternity</th>
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