

Listening to your baby's heart during labour (fetal heart monitoring)

Department of Obstetrics

Information for Patients

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What is fetal heart monitoring?

Most babies go through labour and are born without any problems. But there are a few babies who have difficulties. The best way of finding out when a baby is having problems is to listen to their heartbeat regularly during labour.

During contractions blood flow slows to the placenta (also known as the afterbirth). This is normal and most babies cope without having any problems. If your baby is not coping well this can be heard when we listen to their heartbeat pattern. One of the best ways of finding out if your baby is having difficulties is to listen to his/her heartbeat regularly throughout your labour. This is known as fetal heart monitoring.

How is it done?

Your baby's heart can be checked in 2 ways:

1. At regular times. This means that your baby's heart beat will not be listened to during all of the time in labour.
2. Listened to all the way through labour

1. Listening at regular times

We can listen to your baby in 2 ways:

- By using an ear trumpet called a Pinard stethoscope
- By using a hand held ultrasound machine called a Doppler. Your midwife may also call it a Sonicaid

You may have seen your community midwife use these during pregnancy.

**Health information and support is available at www.nhs.uk
or call 111 for non-emergency medical advice**

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Your baby's heartbeat will be checked:

- every 15 minutes in the 1st stage of labour. This is when you have regular contractions
- every 5 minutes in the 2nd (pushing) stage.

The midwife will need to place their hand on your tummy to feel your contractions to make sure they are listening in at the right time

Please note: The only way your baby's heartbeat can be checked at home or in water is with a Pinard stethoscope or Doppler. If a problem is found, you may be advised to have your baby's heart beat listened to all of the time in labour. This will mean going into hospital.



Using a Pinard stethoscope



Using a sonicaid / Fetal Doppler

What are the benefits of listening at regular times?

- Able to move around freely. You are not attached to a machine.
- Your movement is only limited while the heartbeat is being listened to.

Are there any risks of listening at regular times?

If you are healthy and have had a low-risk pregnancy this is the usual method of listening to your baby's heartbeat. This is because it can find babies that are not coping well with labour. It can also lower the risk of unnecessary interventions (such as caesarean section). A baby whose parent has complications in pregnancy may be at greater risk of developing problems in labour. For this reason, for people with complicated/high risk pregnancies we recommend listening to your baby's heartbeat all of the time in labour. More information can be found below.

2. Listening to your baby's heartbeat all of the time during labour

This is also known as, continuous electronic fetal monitoring (EFM) through ultrasound and can also be done in 2 ways:

1. By putting 2 devices around your tummy (abdomen). 1 device checks the baby's heartbeat. The other device checks how often your contractions are coming
2. By putting 1 device around your tummy (abdomen) to check how often your contractions are coming. A 2nd device, called a fetal scalp electrode (FSE) is on the end of a very small wire. This is passed up the vagina (the same as an internal examination). It is put on to your baby's head by a very small clip

A FSE does not harm your baby but you may notice a small graze on your baby's head after birth. The electrode can then pick up the signals of the baby's heartbeat more easily because it is directly attached to your baby. This electrode stays in place until your baby is born.

The monitor records your baby's heartbeat as a pattern on a piece of graph paper. This is called a cardiotocograph (CTG) or a 'trace'. This will be checked all the time by the midwife caring for you. This is to get an idea of how your baby is coping with labour. This will be reviewed every hour by 2 midwives or doctors. They will be able to explain their findings to you.



Using a cardiotocograph machine or CTG for short

When monitoring your baby's heartbeat, the midwife will check your heartbeat by taking your pulse to make sure they can tell them apart.

Can I choose how my baby's heartbeat is monitored?

- Yes you can choose how your baby's heartbeat is checked but we do make recommendations.
- If you are healthy and have had a trouble-free pregnancy then listening at regular intervals is a safe method of checking your baby's heartbeat during labour.
- There is no evidence to have EFM when you arrive at hospital unless you are having your labour started or there are concerns about your baby.
- Sometimes your midwife or doctor may recommend continuous monitoring if you have a health problem or anything else that may affect your pregnancy or your baby. That may put you or your baby at increased chance of not coping with the contractions. We then recommend that the best method to check your baby's heartbeat is continuous EFM.
- The reasons for using continuous monitoring will be discussed with you. You may also wish to have continuous monitoring for your own reasons, such as reassurance.
- There is no evidence to show that continuous CTG monitoring reduces the risk of cerebral palsy or brain injury.

What are the benefits of monitoring my baby's heart rate?

- Understanding how your baby is coping with labour can help the midwives and doctors looking after you make decisions with you about the best and safest care for you and your baby.
- If the baby is not coping well then the doctor will discuss a plan of care with you and your birthing partner.

**There are other signs that your baby is coping well in labour:**

- The baby's movements. These can be difficult to notice during labour because your bump will go tight or firm during contractions;
- When your waters break, either on their own or by a midwife or doctor, they should be clear. If they are not clear we may recommend continuous monitoring so a closer eye can be kept on your baby's heartbeat.

What happens if I choose not to have my baby's heart monitored?

The kind of monitoring you have while you are in labour is up to you. Most people like to be able to hear their baby's heartbeat. Others find it worrying.

If you are not sure that you want to have any fetal heart monitoring it would be best to talk more with your midwife or doctor. Once they are confident that you have all the necessary information to make a fully informed choice, a plan will be made and written in your notes and personalised care plan. This is to make sure everyone who may care for you in labour is aware. Of course you can change your mind at any time.

Where can I find out more information?**National Institute for Clinical Excellence**

<https://www.nice.org.uk/guidance/cg190>

Tommy's pregnancy Hub

<https://www.tommys.org/pregnancy-information/giving-birth/monitoring-your-baby-labour>

If you would like to speak to a midwife about the information in this leaflet, please contact your named community midwife. The community number can be found in your hand held maternity notes. Or a midwife on the labour ward (hospital contact numbers can be found in your hand held notes) will be happy to talk to you.

With thanks to Northampton General Hospital and Norfolk and Norwich University Hospitals

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