

Monitoring Your Baby in Labour

Why monitor a baby's heartbeat in labour?

All babies face at least some reduction in oxygen supply during each contraction when you are in labour. It is common for this to lead to changes in your baby's heart rate pattern as a normal response. Most babies come through labour without problems but there are a few who don't cope as well. Monitoring a baby's heartbeat in labour and interpreting aspects of this allows timely intervention for a baby who is not coping well with the labour. However, its use cannot protect all babies.

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 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 check your pulse as well as your baby's heart to make sure they can tell them apart.

You will be given the choice of how, and if, you want your baby to be monitored in labour – you can discuss this further with your midwife.

Intermittent auscultation (listening in to the baby at regular intervals)

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 first stage of labour (after a contraction) and more frequently in the second stage when you are pushing.

Intermittent auscultation can be undertaken using either a hand held Doppler or Pinard stethoscope. A Pinard is a trumpet shaped stethoscope. It enables your midwife to hear your baby's heartbeat through your abdomen. A "Doppler" is a small hand-held device, which uses ultrasound to detect your baby's heartbeat. When it is placed against your abdomen it allows you and your midwife/doctor to listen to your baby's heartbeat.

With intermittent monitoring, your ability to stand up and move around will only be limited when the baby's heartbeat is being listened to.

Continuous electronic heart rate monitoring by ultrasound

Sometimes your midwife or doctor may recommend continuous monitoring (in <50% of labours). This may be for a number of reasons relating to your or your baby's health. The reasons for using continuous monitoring will be discussed with you. 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. Elastic belts are used to hold sensors against your abdomen.

These sensors detect your baby's heartbeat and contractions and are connected to the monitor. The monitor records your baby's heartbeat and your contractions as a

pattern on a strip of paper. The monitor records the frequency of contractions but not the strength. This is called a cardiotocograph, or is more simply referred to as a “CTG” or a “trace”.

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. 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.

There is a limited supply of wireless CTG monitors on Delivery Suite. These monitors still require you to have sensors attached to your abdomen with elastic belts but these sensors communicate with the CTG machine wirelessly, which will allow you to move more freely. Your midwife will be able to tell you if these machines are available for you to use when you are admitted to Delivery Suite in labour.

Continuous electronic heart rate monitoring is not available on the Midwifery Led Birth Unit (MLBU). If you are in labour on the MLBU and continuous electronic heart rate monitoring is needed, you will be transferred to Delivery Suite.

Fetal Scalp Electrodes (FSE)

Sometimes use of a FSE (sometimes called a “clip”) may be recommended. This is usually recommended when the external sensor gives a poor record of the baby’s heart rate. This may stay on until the baby is born. The reasons for doing this will be discussed with you. The electrode picks up your baby’s heartbeat directly. It is attached to your baby’s scalp by piercing the skin on top of the baby’s head and is then connected to the monitor.

Fetal Blood Sampling (FBS)

Occasionally the CTG may make your midwife or doctor suspect that your baby is not coping well. If this happens, further action may be recommended. This could include immediate delivery of your baby or carrying out a further test called ‘fetal blood sample’ or FBS.

FBS is particularly useful in establishing whether the concerns raised by the trace are genuine, or a “false alarm”. This may help avoid an unnecessary intervention, such as Caesarean Section.

This test involves taking one or two drops of blood from your baby’s scalp (through your vagina). This blood is tested for its pH level to show how well your baby is coping with labour. The test takes between ten and twenty minutes to perform and is safe for you baby.

