

Monitoring your Baby's Heartbeat in Labour

Information and advice for patients

Maternity

During labour it is important that we monitor your baby's heartbeat to monitor the wellbeing of your baby. Most babies cope very well with labour. If a baby is not coping well, this may be reflected in the pattern of their heartbeat. Monitoring your baby's heart beat in labour allows for timely interventions.

How will my baby be monitored during labour?

One of the best ways of monitoring your baby during labour is to listen to their heartbeat: this is known as fetal monitoring. There are two main ways this can be done.

1. Intermittent auscultation
2. Continuous electronic fetal monitoring

What is intermittent auscultation?

This is the recommended form of monitoring if you have a low risk pregnancy or are planning to give birth on Serenity (our midwifery-led unit).

Intermittent auscultation is where your baby's heartbeat is listened to at regular intervals during your labour, using either a little trumpet-shaped device (Pinard stethoscope) or a handheld ultrasound machine (Doppler).

When you are in established labour (4cm dilated with strong, regular contractions) the midwife will listen to your baby's heartbeat for a full minute after a contraction every 15 minutes. Once you are fully dilated, your baby's heartbeat will be listened to every 5 minutes until your baby is born.

What are the benefits of intermittent auscultation?

- You can move around freely during your labour
- You can use the pool for labour

What are the disadvantages of intermittent auscultation?

There is a risk of a sudden change in your baby's heart rate that may not be detected by intermittent auscultation but these are rare in healthy babies. If there are concerns about your baby's heartbeat then you will be advised to have continuous electronic fetal monitoring.

What is continuous electronic fetal monitoring?

Continuous electronic fetal monitoring is where your baby's heart rate is constantly monitored. This is done using a cardiotocograph (CTG) machine, this is a painless procedure.

A TOCO (pressure sensitive contraction transducer) which is a coin shape and monitors how often your uterus (womb) contracts, is placed at the top of your uterus. In addition a transducer (ultrasound probe) which is also a coin shape is placed where your baby's heart beat can be monitored and heard clearly. These are held in place by elastic belts. If you are having CTG monitoring the monitor is connected to the CTG machine by wires. The CTG machine will produce a printed graph (sometimes called a trace) to show the pattern of your baby's heart rate. The TOCO records the frequency of contraction- it does not measure how strong your contractions are.

Telemetry is a machine very similar to a CTG machine, it records your baby's heart rate continuously in the same way but it is wireless. A TOCO and transducer are still used but it is not connected to a machine with wires. You still have a visual printed graph (sometimes called a trace) just as you would with a CTG machine.

What are the benefits of continuous EFM using Telemetry?

You will be able to mobilise freely and use the birthing pool for pain relief.

What are the disadvantages of continuous EFM using Telemetry?

There is limited availability of this machine on the Labour ward.

Continuous EFM is recommended if:

- Your pregnancy has lasted more than 41 weeks or less than 37 weeks
- You are having an epidural
- You have had bleeding from your vagina before or during labour
- Your labour is being induced ("started off") or your contractions are being strengthened with a hormone drip (oxytocin)
- You have a multiple pregnancy (pregnant with more than one baby)
- You have previously had a caesarean section or uterine surgery
- Your baby is measuring small and/ or there is a reduction or increase of fluid around him/her
- If we suspect that the waters around your baby are discoloured or smell offensive
- You have any medical problems or pregnancy-related conditions (e.g. diabetes, high blood pressure etc).
- Your baby is in the breech position (bottom first)
- We have any concerns about you or your baby

What are the benefits of continuous EFM?

- You will be able to see the pattern of your baby's heartbeat which could be reassuring for you and your birth partner

- Continuous fetal monitoring is a screening tool that gives us a constant visual image of your baby's heart rate pattern, which can be used to assess how well baby is coping in labour and highlight any changes that may need to be acted on by the team providing your care.

What are the disadvantages of continuous EFM?

The wires can limit mobilising freely, however with support from the midwife we will encourage you to mobilise around the bed and adopt different positions (for example using a birthing ball, standing or kneeling) as long as we are able to monitor the baby safely.

Are there any alternative ways of monitoring my baby's heart beat during labour?

Sometimes it may not be possible to get a continuous and reliable recording of your baby's heartbeat using the transducer on the CTG machine. In this situation your midwife or doctor may advise that your baby's heartbeat needs to be recorded through a fetal scalp electrode (FSE) or clip that is directly attached to the baby's scalp which is placed on during a vaginal examination. This may have to stay on until your baby is born.

What happens if there is a problem with my baby's heartbeat?

If there are concerns about your baby's heartbeat, your midwife will ask a senior midwife and doctor to review you and your baby. This will include looking at all aspects of the labour, your wellbeing and the current risk factors.

Changes in the pattern of the heartbeat in some instances are normal, for example when the baby is sleeping or moving around, or maybe after you have received pain relief (for instance pethidine). Your midwife or doctor will be able to give explanations of the various interpretations of the trace.

Further information

Please ask your midwife or doctor if you have any questions and they will talk to you about the different choices of monitoring your baby's heartbeat.

For more information about our hospitals and maternity services please visit our websites www.swbh.nhs.uk follow us on X @swbhnhs Facebook **SWBMaternity & Gynaecology** and Instagram **swb_delivery_suite**

Sources used for this leaflet

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A Teaching Trust of The University of Birmingham

Incorporating the Midland Metropolitan University Hospital, City Health Campus, Sandwell Health Campus and Rowley Regis Hospital.

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MLL6875

Issue Date: June 2025

Review Date: June 2028