NHS
Northern Care Alliance
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Fetal Monitoring in Labour

An information guide

Health & care information you can trust

The Information Standard Certified Member

Fetal Monitoring in Labour

Introduction

This leaflet is designed to give you information about why it is important to listen to your baby's heartbeat during labour (fetal monitoring), and to describe the different types of fetal monitoring that may be recommended for you, depending on your individual risk of developing complications in labour.

How your baby is monitored in labour is **your** choice and this leaflet aims to answer some common questions in order to help you to make an informed choice.

Why is it important?

During normal labour, contractions compress the placenta (afterbirth) and temporarily reduce the amount of oxygen that passes into the fetal bloodstream.

The fetus is well adapted to be able to cope with the process of labour by carrying more oxygen in their red blood cells than we can and also by a naturally fluctuating heart rate that protects their heart muscle.

Some changes in the fetal heart rate are completely normal and show that the fetus is responding to events of labour and coping well. However, other changes can be clues that the fetus is becoming tired and may not be coping well.

How is the fetal heart rate monitored?

There are different ways that the fetal heart can be monitored during labour.

The monitoring that is recommended for you will depend on your level of risk in pregnancy. If your pregnancy has been uncomplicated (low risk), then it is likely that intermittent auscultation of the fetal heart will be recommended as this is a more suitable method to monitor your babies heart rate.

If there have been complications in your pregnancy (high risk) or you wish to have an epidural for pain relief in labour, then you may be recommended that you have Electronic Fetal Monitoring (EFM) of the fetal heart.

Examples of risk factors where EFM would be recommended in labour are:

- Intrauterine Growth Restriction (Small baby or a baby that has stopped growing).
- Concerns with fetal movements in previous 24 hours.
- Multiple pregnancy (twins or triplets).
- High blood pressure/pre-eclampsia.
- Diabetes.
- Preterm labour (26-36+6 weeks).
- Rupture of membranes (breaking of waters) for more than 24 hours.
- Syntocinon use (labour that is induced or accelerated with a hormone drip).
- Epidural in labour.

Intermittent Auscultation (IA)

Intermittent auscultation is performed by your midwife at regular intervals throughout your labour and more frequently once you begin to push, usually for one full minute at the end of a contraction, and more regularly during pushing.

This is done using a Pinard Stethoscope, which is a trumpet shaped instrument (figure 1) that your midwife will place on your abdomen and rest her ear against to listen to your baby (figure 2).

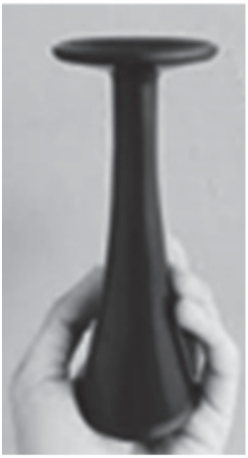

Figure 1

Figure 2

Another device that can be used is called a Doppler or Sonicaid. The probe is placed on your abdomen and it picks up sound waves from your babys heart and the heartbeat can be heard via a speaker (figure 3). This method enables you to hear your baby's heartbeat too.

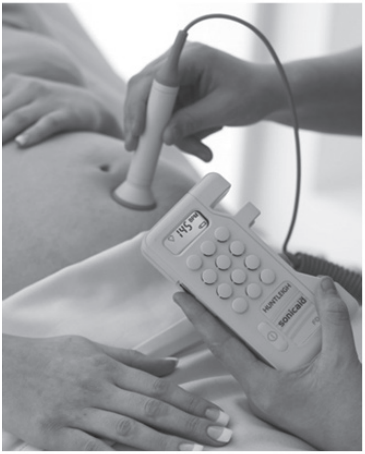

Figure 3

Your midwife may have listened to your baby's heartbeat with a pinard or sonicaid during your pregnancy.

If your midwife hears any changes in the heartbeat during your labour that may indicate that your baby is becoming tired, you will be advised to change to continuous electronic fetal monitoring to look more closely at your baby's heart rate pattern.

This will involve being transferred to the labour ward. If the heart rate pattern indicates that your baby is coping well with labour then you will be returned to intermittent ausculation and back to the birth centre if possible.

National NICE guidance suggests that intermittent auscultation is a safe and effective way to monitor babies of mothers experiencing a low risk pregnancy and birth.

The advantage of intermittent moniting is that you can mobilise freely during your labour and can also birth at home or on the birth centre. Doppler devices can also be used to listen to your baby's heart if you choose to labour or birth in water.

Electronic Fetal Monitoring (EFM)

If your pregnancy has been high risk or risk factors have developed in labour, continuous EFM is recommended throughout labour until delivery.

The electronic fetal monitor (figure 4) records your baby's heartbeat and your contractions continuously.

The midwife will feel the position of your baby and apply a transducer (disc) on your abdomen directly over your baby's shoulder to pick up and record the heart rate.

Another transducer is placed on the fundus (top of the womb) and can pick up when a contraction occurs (figure 5).

The heartrate and contractions are displayed on a trace that is called a Cardiotocogram (CTG). Midwives and doctors are trained and assessed on the interpretation of CTG traces and management of any concerns.

Figure 4

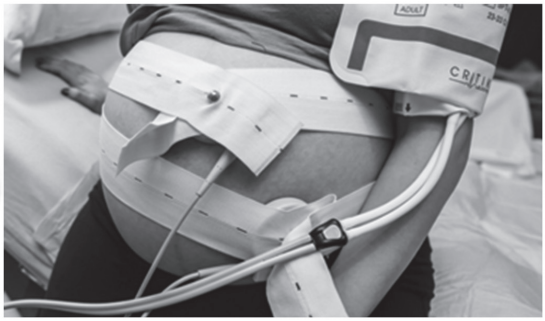

Figure 5

Sometimes EFM may restrict your ability to mobilise due to the wires attached to the monitor, however there are some wireless

monitors available for use and these can be used in the birth pool too (figure 6).

Being on an EFM does not mean you have to stay on the bed during your labour. You can still adopt different positions, mobilise as much as possible and use a birth ball.

Your midwife will make every attempt to enable your birth to be as comfortable and enjoyable as possible.

Figure 6

Fetal Scalp Electrode (FSE)

Sometimes the baby's heart rate can be difficult to monitor via a transducer on the abdomen.

This may be due to the position of your baby or you moving around in labour. If your midwife is unable to get a good recording of your baby's heartrate, a clip can be placed directly onto your baby's head during a vaginal examination.

This is called a Fetal Scalp Electrode (FSE) and it picks up and records your baby's heart rate from the scalp. This does not hurt your baby but you may notice a slight scratch on your baby's scalp.

What happens if there are concerns with the CTG trace?

Some changes in your baby's heart rate pattern seen on the CTG may indicate that your baby is becoming tired.

If your midwife or doctor is concerned that your baby isn't coping, you may be offered a test to check the amount of acid in your baby's blood .

This test is called a ***fetal blood sample (FBS).*** During a vaginal examination a small instrument similar to a speculum (used when you have a smear test) is placed into the vagina to enable the doctor to see your baby's head.

A scratch is made on your baby's scalp and few drops of blood are collected and analyzed. The scratch is very small and heals quickly but there is a very small risk of infection.

The amount of acid in your baby's blood tells the doctor if your baby is coping well with labour, and allows the doctor to offer you alternative options if this is not the case. If concerns with your baby's heart rate pattern continue, this test may need to be repeated to be sure your baby is continuing to cope well.

When there are concerns with a CTG, an FBS result enables your doctor and midwife to manage your labour care and safe arrival of your baby.

Where can I find more information?

Your midwife will consider your level of risk at the start of and continuously throughout your labour and make an evidence based recommendation on the most suitable method of monitoring your baby.

The methods of monitoring you receive in labour is your choice and this leaflet aims to help you to make an informed decision.

If you have further questions or you are unsure if you want to receive fetal monitoring in labour or which option is right for you, you can discuss this with your midwife.

Alternatively you can find more information by looking at the websites below:

www.nice.org.uk/guidance/cg190 Intrapartum Care for Healthy Women and Babies, NICE Clinical Guidence CG190, February 2017

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

https://www.aims.org.uk/information/item/monitoring-your-babys-heartbeat-in-labour

If English is not your first language and you need help, please contact the Interpretation and Translation Service

Jeśli angielski nie jest twoim pierwszym językiem i potrzebujesz pomocy, skontaktuj się z działem tłumaczeń ustnych i pisemnych

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The Northern Care Alliance NHS Group (NCA) is one of the largest NHS organisations in the country, employing 17,000 staff and providing a range of hospital and community healthcare services to around 1 million people across Salford, Oldham, Bury, Rochdale and surrounding areas. Our Care Organisations are responsible for providing our services, delivering safe, high quality and reliable care to the local communities they serve.

The NCA brings together Salford Royal NHS Foundation Trust and the hospitals and community services of The Royal Oldham Hospital, Fairfield General Hospital in Bury, and Rochdale Infirmary (currently part of The Pennine Acute Hospitals NHS Trust).

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