

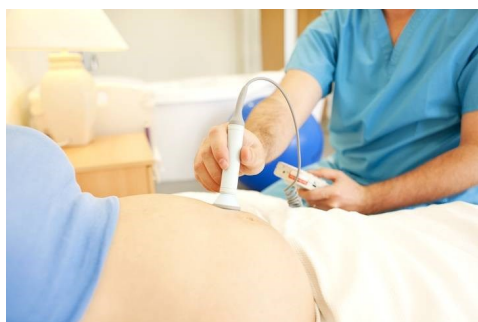
Monitoring your baby's heart rate when you are in labour:

Intermittent Auscultation & Cardiotocography



Why do we monitor your baby's heart beat? Monitoring your baby's heartbeat allows us to ensure the blood supply to your baby is healthy. There are 2 ways to monitor your baby's heartbeat during labour: Intermittent Auscultation & Cardiotocography (CTG monitoring).

Labour can be a stressful time for all babies and although CTG Monitoring is an imperfect method, it is the most reliable method we have. In the England and Wales during the 1950s (British Perinatal Mortality Survey, 1958), approximately 80/10,000 babies died during labour. We now know that approximately 2/10,000 babies die during labour and one of the reasons for this decrease is fetal heart rate monitoring.



Intermittent Auscultation with a Doppler



Intermittent Auscultation with a Pinard stethoscope

What is Intermittent Auscultation? If you have no abnormal risk factors, your carer will use either a handheld Doppler or Pinard stethoscope to feel to your baby's heart rate. If a Doppler is used, you will also be able to hear your baby's heart rate. To tell the difference between you and your baby's heart rate, your midwife will also listen to your heart rate. This takes about 1 minute to do.

How often will I have Intermittent Auscultation? Intermittent Auscultation is done every 15 minutes in the first stage of labour. During the second stage of labour (which is when you feel the need to start pushing), intermittent auscultation will be done every 5 minutes. If your midwife or doctor are having difficulty listening to your baby's heart rate, they may use a CTG machine to record your baby's heart beat. This will be removed if all is well with your baby.

How is Intermittent Auscultation done? To feel your contractions, your doctor or midwife will place their hand on your stomach. Using a Doppler or Pinard stethoscope, they will listen to your baby's heartbeat at the end of a contraction and check your pulse at the same time.

Is there a risk in using Intermittent Auscultation? If your baby's heart rate changes suddenly, although rare, this change will not be detected immediately.



What is Cardiotocography/CTG? CTG measures your baby's heart rate and your contractions, checking that your baby's heart rate stays normal during contractions. It is important as contractions reduce the blood supply to the baby. A baby who is healthy should cope well with the stresses of labour contractions, but sometimes a baby will not cope well with these stresses. CTG monitoring aims to help your carer see if your baby cannot cope well with these stresses.

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This information aims to answer frequently asked questions about fetal heart rate monitoring during labour. For more information specific to your individual needs, please ask your midwife or obstetrician.

What is a CTG monitor like? An elastic belt with two round monitors is placed around your stomach. Your midwife will put some jelly where monitors touch your skin. This helps the signal of the CTG. One pad monitors your baby's heart rate and the other monitors your contractions. The belt is connected to a machine which reads your baby's heart rate, which you can hear as a beating sound. You can ask your midwife to lower the volume if you'd prefer not to listen to the heartbeat.

How does CTG Monitoring work? The CTG machine uses a type of ultrasound called a Doppler, sending waves to detect and monitor your baby's heart rate.

What does CTG Monitoring shows? A heart rate in your baby that doesn't change; is too low; or too high may signal a problem. A baby's heart rate varies between 110 and 160 beats per minute. This is much faster than your own heart rate, which is about 60-100 beats per minute. Your baby's heart rate will change when you have contractions. The CTG monitor should identify when certain changes may be a problem. Your midwife or doctor may decide that it may help to change your position, or reduce or stop oxytocin (if you are on an oxytocin drip), or deliver your baby right away. For you and your baby's safety, a vacuum or forceps may be used, or a Caesarean section may be needed.

What is an Admission CTG? You will be offered an Admission CTG when you are being admitted to the hospital. An admission CTG lasts for about 20 minutes and ensures your baby is coping well with the contractions. It provides important information about your baby's health at the start of labour. A recent Irish study shows that having an admission CTG does not increase the need for operative intervention in labour. If you choose to have an admission CTG, your midwife will apply the CTG belt on you, allowing them to make sure your baby is not under any stress.

What is Continuous CTG Monitoring?

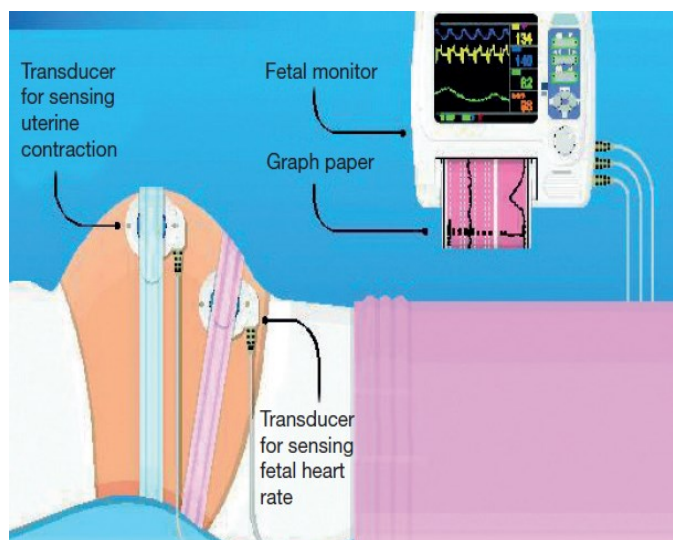
If you or your baby have any risk factors, continuous CTG monitoring will be recommended to you. If you have no risk factors, you can still choose to have continuous CTG monitoring. Studies have shown that continuous CTG monitoring in labour reduces the risk of your baby having a seizure by approximately 50%.

Are there any side effects?

CTG is considered a safe test and uses no radiation.

If your CTG monitor is not wireless, your mobility may be limited.

What a CTG Machine looks like when connected to you



Reasons Continuous CTG may be recommended to you

- Your baby is coming early or seems smaller than expected
- You have high blood pressure.
- You have a high temperature (fever).
- You have an infection.
- You pass fresh blood while in labour.
- You are pregnant with more than one baby (twins or more).
- Your baby has opened its bowels (passed meconium) into the amniotic fluid.
- The midwife thinks there may be a problem after using a Doppler machine or Pinard stethoscope.
- If your membranes have ruptured more than 24 hours before your labour starts.
- If your baby is in an unusual position.
- You have had oxytocin to bring on labour more quickly or have had an epidural for pain relief.
- If you have an epidural for pain relief during labour, CTG may be used for half an hour after an epidural has given or after it has been topped up.

Your carer may recommend continuous CTG monitoring for other reasons beyond this list.