

# Fetal monitoring in labour

This information sheet aims to answer some commonly asked questions about fetal monitoring in labour..

**IMPORTANT:** This is general information only.  
Ask your doctor or midwife about what care is right for you.

During your labour your baby's heart beat will be monitored. This is known as fetal monitoring in labour or intrapartum fetal surveillance

## What is fetal monitoring in labour?

Fetal monitoring is listening to your baby's heart beat to see how they are coping during labour. There are two ways this can be done:

- Intermittent auscultation also known as intermittent monitoring—listening for a short time at regular intervals with a doppler or Pinard stethoscope (made for hearing the baby's heart beat)
- Continuous electronic fetal monitoring also known as continuous monitoring—using a cardiotocograph (CTG) machine that draws a graph of your baby's heart rate and your contractions

## Why does your baby need to be monitored in labour?

During your pregnancy and labour, the placenta provides oxygen to your baby. During contractions, less blood reaches the placenta. This is normal and most babies cope well with this. If your baby is not coping well, the pattern of their heart beat may change. This change can be detected during monitoring.

Monitoring is recommended for all babies during labour to help find problems early (if there any).

## How will your baby be monitored?

Generally, if you are well and healthy and have had no complications while you are pregnant (that is, you are considered to be low risk), your baby can be safely monitored by intermittent auscultation.

Continuous monitoring is recommended if there are extra risks to you or your baby.

These can be health conditions that you had before pregnancy, that develop during pregnancy, or that happen for the first time during labour.

Your midwife or doctor will discuss any risk factors you may have with you.

## What is intermittent monitoring?

Most commonly a small hand-held microphone shaped ultrasound called a doppler is used to hear your baby's heart.

However, this may also be done with a Pinard stethoscope which is a trumpet shaped device. Using a doppler means that you can also hear your baby's heartbeat.

The midwife or doctor will place their hand on your abdomen (tummy) to feel for a contraction. They will then listen to (monitor) your baby's heartbeat for a full minute at the end of the contraction. As labour progresses your baby's heart beat will be checked more often. Your pulse will be checked at the same time to be sure it is your baby's heart beat that is being heard and not yours.

- **Benefits**
  - you can move around as you wish during labour
  - you can labour in the bath or birth pool if you choose (if this is available in your birthing facility)
  - you can be reassured that your baby has a normal heart rate
- **Risks or disadvantages**
  - very sudden changes in your baby's heartbeat may not be detected—these are very rare in healthy babies

Occasionally, a CTG machine may be used if the midwife or doctor is having difficulty hearing your baby's heartbeat. This will be put on briefly and then removed if all is well with your baby.



*Woman having intermittent monitoring by doppler*

## What is continuous monitoring?

Continuous monitoring is done with a CTG machine. Two discs (transducers) are placed on your abdomen and held in place by elastic belts. These are not usually uncomfortable. One disc picks up your contractions and the other your baby's heartbeat. The CTG machine produces a continuous graph of both of these. The graph is usually referred to as 'the trace'. This type of monitoring is called 'external fetal monitoring'.

Sometimes it is necessary to attach the monitor directly on your baby via a special lead. This is called an 'internal fetal electrode' or 'fetal scalp electrode' or 'clip'. The clip is placed on your baby's scalp during an internal (vaginal) examination.

Some birth suites have machines that can pick up your baby's heartbeat and your contractions by a wireless system (Wi-Fi), also called telemetry. Some hospitals may have a Wi-Fi system that can also be used while you are in the shower, bath or birth pool. Your midwife or doctor will discuss the different monitoring options that are available at your birthing facility.

If you are having more than one baby often the first baby will be monitored by the internal fetal electrode and the other(s) by the external transducer(s) or disc(s).

### • Benefits

- your baby's heart rate pattern can be monitored over a longer continuous period of time
- changes in your baby's heart rate pattern can be seen earlier and helps with decisions about managing your labour
- if your monitoring is normal, you can be disconnected from the machine for short periods of time (e.g. to go to the toilet or have a shower)

### • Risks or disadvantages

- if the Wi-Fi system is not available, your freedom to move about may be restricted
- if continuous fetal monitoring is used, it may increase the chance of interventions in labour (such as having a caesarean section)

## How do your midwives and doctors read the trace from the CTG?

Your midwives and doctors will review the trace on a regular basis. They will be looking at:

- your baby's heart rate also referred to as 'fetal heart rate'
- very small changes to your baby's heart rate (also called 'beat to beat variation' or 'variability') that are normal
- any time your baby's heart rate speeds up (also known as 'accelerations') and for how long
- any time your baby's heart rate slows down (known as 'decelerations') and for how long
- how often and the type of contractions you are having

## What happens if there are concerns with my baby?

If there are any concerns about how your baby is coping with labour, these will be discussed with you.

Your doctor may recommend that a blood sample is taken from your baby. This is called 'fetal blood sampling' or 'FBS'.

They may also recommend that your baby's birth be hastened, for example by caesarean section, or forceps or vacuum.

## What is fetal blood sampling?

This is where a very small sample of blood is taken from your baby's scalp during a vaginal examination. The test result is obtained quickly and provides more information about how well your baby is coping with the labour.

Sometimes the result may indicate that your baby needs to be born as soon as possible and an emergency caesarean section may be recommended to you. Fetal blood sampling is not available in all facilities.



*Woman having continuous monitoring by CTG*

## Support & Information

**13HEALTH** (13 432584) is a phone line that provides health information, referral and services to the public. [www.qld.gov.au/health/contacts/advice/13health](http://www.qld.gov.au/health/contacts/advice/13health)

**Pregnancy, Birth & Baby Helpline** 1800 882 436 (free call) offers free, confidential, professional information and counselling for women, their partners and families relating to issues of conception, pregnancy, birthing and postnatal care [www.health.gov.au/pregnancyhelpline](http://www.health.gov.au/pregnancyhelpline)

**Australian Breastfeeding Association** 1800 686268 (breastfeeding helpline). Community based self-help group offers information, counselling, and support services, on breastfeeding issues [www.breastfeeding.asn.au](http://www.breastfeeding.asn.au)

**Lifeline** 13 11 14 Lifeline offers a telephone crisis support service to anyone [www.lifeline.org.au](http://www.lifeline.org.au)