What is fetal monitoring?

Fetal heart monitoring is a way to check the heart rate of your baby during labour. As each contraction happens, your baby's heart rate will normally slow down, because of the pressure being placed on the umbilical cord. The heart rate is a good way to find out how your baby is coping during labour. After the contraction passes, your LMC will expect to hear your baby's heart rate return to normal. If it remains low, or if there are any abnormal patterns to the heart rate, your LMC may be concerned your baby's oxygen supply is being compromised. There is an increased risk of this happening if your labour is induced with medication.

Monitoring can be external (done outside the body) or internal (done inside the body). For most people, it's external. External monitoring can be continuous or intermittent, and most people have some type of monitoring. If you have a low-risk pregnancy—which means that you and your baby have no known problems—you are more likely to have intermittent monitoring. But if a problem occurs during your labour, your baby's heart rate may need to be checked all the time.

Why Is Fetal Monitoring Important?
Monitoring your baby's heart rate can help your LMC to detect changes that can indicate whether there may be a problem or not.
A normal fetal heart rate indicates all is well and your baby is coping with the labour. If changes are detected, such as your baby's heart rate remaining low after a contraction or abnormal patterns, your LMC will look at what is causing this.
Fetal monitoring can identify abnormal heart rates early so action can be taken if your baby needs to be born quickly. This may be necessary to prevent complications that result from oxygen deprivation, such as brain damage, seizures, cerebral palsy, or death.

How Can We Hear The Fetal Heartbeat?
There are a number of ways your baby's heart rate can be monitored during labour. The method used will depend on whether your LMC and the hospital have access to, and experience with, the different types of fetal monitors:

- **Electronic Fetal Monitor (EFM)** Two elastic belts - along with two transducers, are strapped to your belly. One transducer picks up your baby's heart rate and the other records the frequency and strength of your contractions. These are connected to a monitor and while you are hooked up, they will restrict your movement, somewhat. The monitor provides a read-out of the fetal heart rate along with contractions, this is checked by your LMC.
- **Internal Electronic Fetal Monitor** If your cervix is dilated enough and your waters have broken, an electrode is inserted through your vagina, and connected to your baby's scalp via a small wire. The wire is usually taped to your thigh. This monitoring is the most accurate but requires you to lie reasonably still so the wires aren't pulled out.

- **Telemetry** This method of monitoring uses the same sound wave technology as external monitoring. A transmitter is attached to your thigh to transmit the baby's heart rate to the nurse's station. This method allows you the freedom to move but is not widely available.
- **Fetoscope and Pinard Horn** These devices are similar to a stethoscope but listens to your baby's heart rate instead of heart tones. The sound is subtle, and the devices need to be correctly positioned. Not all care providers have the skill and experience to use them effectively.
- **Doppler or Doptone** This is a handheld ultrasound device. It enables experienced users to pick up heart tones within a minute. The device places no restriction on your movement. Some Dopplers can be used in water, so you can labour in a birth pool without needing to get out to be monitored.

Why would I need continuous electronic fetal monitoring?

- You have pregnancy complications or develop any during labour
- You have a pre-existing medical condition, such as chronic hypertension, diabetes or heart disease
- You have an epidural
- You require oxytocin (Pitocin) to induce or augment labour

Will Fetal Monitoring Interfere With My Labour?
Intermittent monitoring means your LMC will monitor you for a period of time, at set intervals. This shouldn't interfere with your labour, as you can usually remain in whatever position you are in, or in the birth pool/shower. You only need to keep still for the time the heartbeat is being detected.

Electronic fetal monitoring can make it more difficult for you to remain active and mobile during labour, unless your hospital has a telemetry monitoring unit. If EFM is required, you may still be able to utilise different positions other than lying on a bed.

What are the benefits of each type of monitoring?
Intermittent
- You aren't attached to wires all the time. So you can leave the bed and walk around during labour
- It can reassure you and your partner that your labour is going well and your baby is coping well
- It can show your LMC that labour can go on at its own pace

Continuous
- It can reassure you and your partner that the labour is going well
- It can show a problem right away

What are the disadvantages of each type of monitoring?
Intermittent
- This kind of monitoring is very safe. But there is a chance that a problem might not be found right away

Continuous
- You can't move around as much, unless you have wireless monitoring
- Changes in the baby's heartbeat might suggest that there's a problem when there isn't one

What Happens if My Baby's Heartbeat Is Abnormal?
It is important to remember that an abnormal heart rate does not always mean that there is something wrong with your baby. If your baby develops an abnormal heart rate, an Ob will try to figure out what is causing it. They may need to order several tests to figure out what is causing the abnormal heart rate.

What will my LMC do if they have concerns about my baby's heart rate?
If your baby's heart rate is persistently flat, slow or fast your LMC may try some simple interventions. These include:

- asking you to change your position
- giving you more fluids through an IV
- giving you supplemental oxygen

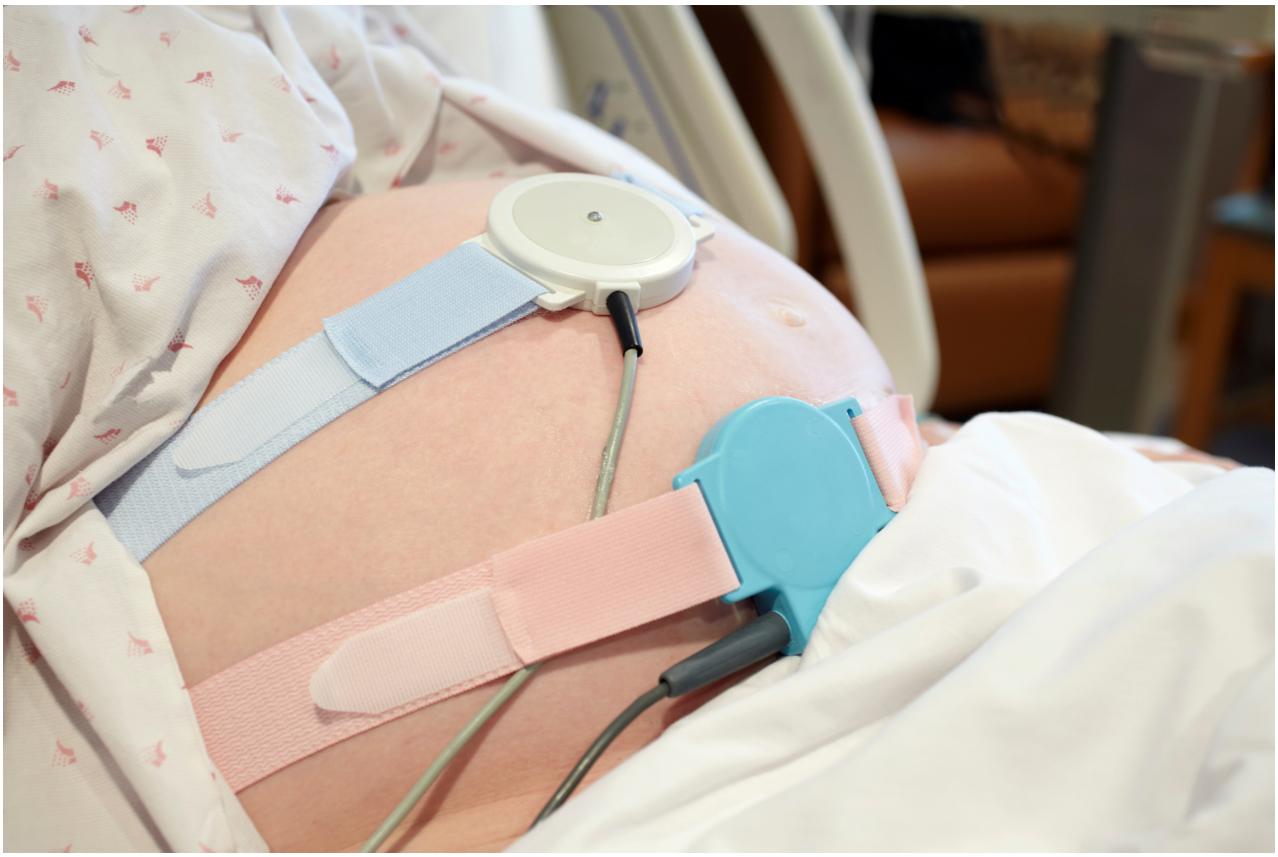
Depending on your situation, other interventions may be necessary, too. These might include:

- stopping oxytocin (Pitocin) if your labour is being induced or augmented
- giving you medication to relax your uterus and decrease your contractions

If your baby's heart rate continues to be questionable or takes a turn for the worse, you may have an assisted delivery if you're already 10 centimeters dilated, or a c-section if delivery is not imminent.

Keep in mind that some dips in a baby's heart rate are normal. Also, certain heart rate changes are considered a sign of well-being. For example, when your baby moves, their heart rate should go up, just as yours does when you exercise.

Depending on your personal health situation and birth setting, you might not have much choice about the method and type of monitoring offered to you during labour. It's important to discuss with your LMC the risks and benefits of each.



Electronic Fetal Monitoring