



Fetal Heart Rate Monitoring in Labor

What is fetal heart rate monitoring?

Fetal (baby) heart rate monitoring is used to check your baby's heart rate when you are in labor. Listening to your baby's heart rate can help your health care provider watch how your baby is doing during labor.

What does fetal heart rate monitoring show?

When your uterus (womb) has a contraction (muscles get tight), your blood flow to the placenta (afterbirth) slows down. Your baby gets oxygen from your blood through the placenta. Most babies have enough oxygen stored up so this slower blood flow during contractions does not cause any problems. If your baby is not getting enough oxygen, their heart rate can slow down or speed up for a short time. Your health care provider will be watching for how your baby's heart rate changes as you have labor contractions.

What types of fetal heart rate monitoring are used?

Doppler stethoscope

A special stethoscope, called a Doppler, can be used to listen to your baby's heart rate briefly. Your provider holds this stethoscope in their hand and puts it on your abdomen (belly). Your provider will listen to your baby's heart rate when you have a contraction and between some contractions.

Electronic fetal heart rate monitor

An electronic fetal heart rate monitor tracks your baby's heart rate and prints it on a piece of paper. The monitor picks up your baby's heart rate from a plastic disc placed on your abdomen (belly) or from a small wire called a fetal scalp electrode. This wire is attached to the skin of your baby's head. The fetal scalp wire is put in your vagina through your cervix (the opening to your uterus) to touch your baby's head. To put in the fetal scalp wire, your membranes (bag of water) must be broken. Your cervix must be dilated (open) enough to feel your baby's head. With either the plastic disc on your abdomen or the fetal scalp wire tracking your baby's heart rate, you will also have another plastic disc placed on your abdomen that tracks your contractions.

How often is the fetal heart rate checked?

Intermittent monitoring

Intermittent monitoring is when your baby's heart rate is listened to off and on during labor. This can be done with the Doppler stethoscope or by putting the plastic disc from the electronic monitor on your abdomen for a short time. Your provider will listen to your baby's heart rate more often as you get closer to giving birth. This is also called intermittent auscultation.

Continuous monitoring

Continuous monitoring is when an electronic fetal heart rate monitor is used to track your baby's heart rate the whole time you are in labor. This can be done with a plastic disc placed on your abdomen or a fetal scalp wire. Your nurse and your health care provider will check your baby's heart rate recording regularly.



Why would I need continuous electronic fetal heart rate monitoring?

If you have a problem during your pregnancy or labor, your provider may recommend continuous fetal heart rate monitoring to watch your baby more closely. Continuous monitoring will be recommended if:

- You have problems during your pregnancy that may give your baby a higher chance of not having enough oxygen during labor, such as you are having twins, or you have preeclampsia (high blood pressure) or diabetes.
- Your baby is being born early (before 37 weeks of pregnancy), being born late (after 42 weeks of pregnancy), or does not have enough amniotic fluid (water) around them.
- You are getting medicine to make you have contractions, such as Pitocin.
- You have an epidural to help with your labor pain.
- You have problems during labor such as your amniotic fluid contains meconium (baby poop), you develop a fever, or your baby's heartbeat shows signs that more time between contractions is needed.

What will happen if my health care provider has concerns about my baby's heart rate while I am in labor?

If your provider has concerns about your baby's heart rate while checking it with the Doppler stethoscope, they may recommend continuous electronic fetal heart rate monitoring. If you are having electronic fetal heart rate monitoring with a plastic disc on your abdomen, your provider may recommend changing to a fetal scalp wire. Simple things like changing the position of your body, giving you IV fluids, or giving you extra oxygen to breathe through a facemask may make your baby's heart rate better. If these do not help, having more contractions may not be safe for your baby. In this case, your provider may recommend a cesarean birth or assisted vaginal birth using forceps or a vacuum.

Do I have a choice about the fetal heart rate monitoring I have while I am in labor?

Health care providers and birth settings have different policies for what type of fetal heart rate monitoring is used. Choices include using the Doppler stethoscope or electronic fetal heart rate monitor, and how often the fetal heart rate is checked. You should discuss your fetal heart rate monitoring goals with your provider before you go into labor. Many providers will recommend intermittent monitoring if you do not have any risk factors and prefer this method.

For More Information

American College of Obstetricians and Gynecologists

<https://www.acog.org/womens-health/faqs/fetal-heart-rate-monitoring-during-labor>

BabyCenter: Fetal Monitoring

https://www.babycenter.com/pregnancy/your-body/fetal-monitoring_1451559

Edward Hospital video on YouTube: Fetal Monitoring

<https://www.youtube.com/watch?v=DvcDXvlCXAE>

Flesch-Kincaid Grade Level: 9.3

Approved March 2021. This handout replaces "Fetal Heart Rate Monitoring in Labor" published in Volume 59, Number 6, November/December 2014.

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