Assessing fetal heart sounds

IF YOU WORK outside the maternal/newborn setting and you care for a pregnant woman, you need to know how to assess both your patient and her unborn child. Fetal heart sounds, typically audible by ultrasound or through a fetoscope at 8 to 14 weeks’ gestation, are a good indicator of fetal well-being. In this article, you'll learn where and how to assess your “other” patient using a Doppler device and how to interpret what you hear.

Getting started
Gather the equipment: a handheld ultrasound (Doppler) device or fetoscope.

How to listen in

1. Tell your patient that listening to her baby’s heart is a routine assessment you’ll do periodically to check the baby’s condition. Show her the Doppler device and explain that you’ll probably move the probe to several areas on her abdomen to locate the loudest fetal heart sounds.

2. Place her in a semisitting position with her knees flexed. Expose her abdomen and apply a dollop of water-soluble gel on the midline, halfway between the symphysis pubis and the umbilicus. This is generally a good place to locate fetal heart sounds.

3. Turn on the Doppler device and set the volume to the halfway mark. Place the probe on the gel and listen for the fetal heart sounds, adjusting the volume as needed.

4. Compare the audible heart sounds with your patient’s pulse. If the rate’s the same, you’re probably hearing the mother’s heart sounds and need to reposition the device. When you locate the fetal heartbeat, count it for a full minute and listen closely for any increases or decreases in rate.
water-soluble conductive gel at room temperature, a watch with a second hand, and clean gauze or towels. Provide privacy and keep your patient warm.

Ask her the following questions:
• Do you feel the baby moving in your belly?
• Do you have any cramping in your belly?
• Are you having any vaginal discharge or bleeding? (For when to report her answers or questionable fetal heart sounds, see Interpreting Your Findings.)

Follow the steps below to assess fetal heart sounds.

5. After 30 weeks’ gestation, fetal heart tones are best heard through the fetal back. As shown in the top photo, you can find it by gently palpating the mother’s abdomen for a firm area midline on the left or right side. (Before 30 weeks, the fetus is very small and can change position easily.)

If you have difficulty locating fetal heart sounds, picture your patient’s abdomen in four quadrants. Apply gel and listen in each quadrant before proceeding to the next one.

6. Use a clean towel or gauze to wipe the gel from your patient’s abdomen. Clean the Doppler probe according to your facility’s infection control protocol for cleaning biomedical equipment.

Document the date and time of your assessment, the fetal heart rate and rhythm, any increases or decreases, maternal heart rate and rhythm, the device used, any actions taken as a result of your findings, and your patient teaching.

SELECTED REFERENCES

The Doppler device featured here is the Nicolet Elite from Nicolet Vascular, Inc.

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Interpreting your findings

Normal findings
• In early pregnancy, fetal heart rate (FHR) is typically in the 160s.
• Near term, FHR ranges from 110 to 160.
• After 28 weeks, FHR increases with fetal movement, evidence of a maturing autonomic nervous system.

Findings to report. Immediately notify the health care provider for further assessment of fetal well-being in these situations:
• absence of fetal heart sounds, which may indicate early pregnancy, improper technique, faulty equipment, or fetal death
• any decrease in FHR that doesn’t return to baseline immediately.
• the mother’s report that she doesn’t feel the baby moving (after 22 weeks) or she’s having abdominal cramps or vaginal discharge or bleeding.