

Fetal Monitoring References

Auscultation: This term refers to when the nurse or doctor listens to the baby's heart at set intervals during labor. They will either listen to the heart rate using a stethoscope (putting it on your abdomen), or they will listen by ultrasound (which will amplify the sound of the heartbeat, and be monitored and recorded after a contraction at set times).

External electronic fetal monitoring: This method is done by strapping an ultrasound transducer over your abdomen that will pick up the sound of the baby's heartbeat. The heartbeat will be recorded continuously on a paper strip. There will be another device strapped on top of your abdomen -- a pressure gauge that measures the frequency and power of your contractions. The combination of these two measurements will provide detailed information as to how your baby is doing during labor.

Internal electronic fetal monitoring: An internal monitor can only be used once your "water has broken" and your cervix has dilated enough. This method is performed by inserting a small, spiral-shaped electrode (Fetal scalp electrode or FSE) into your vagina and attaching it to the baby's scalp to record the fetal heart rate. Usually a small catheter is placed in your uterus to measure the strength of your contractions (Intrauterine pressure catheter or IUPC). This type of monitoring may give a more precise reading of the baby's heart rate and your contractions compared to external monitoring.

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(For an excellent summation of all available studies on EFM published before 1987, see Prentice and Lind, "Fetal heart rate monitoring during labor-- too frequent intervention, too little benefit" [1987:2:1375-1377].) About the heightened risk of Cesarean resulting from EFM use, its inventor Dr. Hon had this to say, "Most obstetricians don't understand the monitor. They're dropping the knife with each drop in the fetal heart rate. The Cesarean section is considered as a rescue mission of the baby by the white knight, but actually you've assaulted the mother" (Young and Shearer 1987). <http://www.birthpsychology.com/messages/efm/efm.html>

Medical Encyclopedia

Internal fetal monitoring

Internal fetal monitoring involves placing a electrode directly on the fetal scalp through the cervix. This test is performed to evaluate fetal heart rate and variability between beats, especially in relation to the uterine contractions of labor.

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<http://www.nlm.nih.gov/medlineplus/ency/imagepages/9324.htm>

Internal monitoring requires an internal spiral electrode.

The membranes must be ruptured, the cervix dilated to 2 cm or >, the presenting part must be down against the cervix, and the examiner must recognize which fetal part is presenting (to avoid injury). A sterile spiral electrode is inserted into vagina against presenting part, & rotated until it attaches. Provides accurate, continuous movement, with a clearer signal and minus interruptions d/t maternal or fetal movements.

<http://faculty.valencia.cc.fl.us/magagen/NUR2420/INTRAPARTUM1-Notes.htm>

Risks of internal monitoring include, but are not limited to, infection and bruising of the fetal scalp or other body part.

<http://www.stjohnsmercy.org/healthinfo/test/gyn/TP115.asp>

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What are the risks associated with this procedure?

Complications from this test are rare. They may include the following:

- The spiral electrode may cause an infection on the baby's scalp.
- Improper placement of the electrode may hurt the baby.
- The catheter placed in the uterus may cause bleeding in the mother if it goes through the placenta or the uterine wall. Also, it may cause the uterus to become infected.

http://www.med.umich.edu/1libr/wha/wha_intmon_crs.htm

There are two kinds of monitors: external and internal. The external monitors are attached to a heavy elastic band that is strapped across the mother's abdomen. She must lie quietly so the monitors do not slip. The baby's heart beat is recorded on a machine that documents the moment to moment heart rate on graph paper along with the mother's contractions. The internal monitor does the same things, but it is attached directly into the baby's head by a metal screw. The uterine contractions are monitored by a probe that is inserted into the uterus. Some feel that this is a more accurate reading.

<http://www.moondragon.org/articles/hospitalrisks.html>

At times, an *Internal Fetal Monitor* (IFM) is used instead of the external one. This is a small electrode-like device that is inserted into the mother's vagina and then screwed into the baby's head. To measure the strength of the mother's contractions internally, an *Intra Uterine Pressure Catheter* (IUPC) is often used with the IFM.

<http://www.plus-size-pregnancy.org/facility.htm#Fetal%20Monitors>

When monitoring continues more than 4.5 hours, the risk of infection is 50%. If it were not for antibiotics, the death rate from monitor-produced infections would be staggering....The baby is also at risk of infection from the scalp-implanted electrodes ...of all internally monitored babies, 4-5% suffer scalp abscesses, lacerations, hematomas, and hemorrhages. -Brackbill et al 1984:11

We let them put it on, and they had to do it twice before they got it in. And then he had these little scabs on his head - I really wish I hadn't let them do that. I really don't see how they could possibly think that it didn't hurt him.

-Clara Riley

At Doctor's Hospital I learned to screw a monitor lead into the scalp of a baby not yet born....Was the baby frightened? Is this baby curious anymore? Does this baby still want to be with us? What have we taught this new person about what life is like? At Doctor's Hospital I attached the woman to the monitor, and no one looked at her any more. Held in place by the leads around her abdomen and coming out of her vagina, the woman looked over at the TV-like screen displaying the heartbeat tracings. No one held the woman's hand. Childbirth had become a science. -Harrison 1982:91

<http://www.birthingnaturally.net/barp/intmonitor.html>

Also see:

<http://www.childbirth.org/articles/efm.html>

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