

# Fetal Monitoring

## What is Fetal Monitoring?

Fetal monitoring is a way for your care provider to assess your baby's heart rate and, depending on the type of monitoring, your contraction pattern and intensity. Fetal monitoring is necessary to assess how your labor is moving and how well the baby is handling the labor process.

## How is my baby monitored?

There are several different modes of monitoring your baby and labor.

- ☞ One way is to periodically monitor your baby's heart rate using a doppler or fetoscope during your labor. If using this method (also called auscultation), your care provider trusts you to tell her/him how strong your contractions are and how far apart they are. (Your care provider will often pay more attention to you using this method, as they will want to periodically verify how far apart your contractions are for their records.) To assess the strength of your contractions, your care provider will place a hand on your abdomen during a contraction to feel how hard the uterus becomes and to assess how long it lasts. Using auscultation and intermittent contraction monitoring also **ensures** freedom of movement and has been proven to be a far superior way of assessing the mother and baby's well-being.



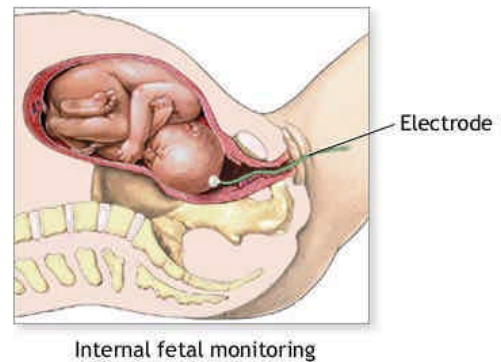
- ☞ The Second way is to monitor using an external fetal monitor (EFM). This is a monitor that uses an ultrasound transducer (essentially a doppler) and a pressure sensitive device (*tocodynamometer*,) that are strapped onto your belly by using either elastic adjustable belts or a wide elasticized band. The ultrasound part of the monitor records the baby's heart rate and the pressure sensitive part records the strength, duration, and time between contractions. This is recorded and printed out constantly while the mother is hooked up to the monitor and is transmitted to the nurse's station. This way of monitoring means less interaction between the mother and her



provider. Using this method, the mother is restricted in her movement and cannot rub her belly to alleviate contraction pain, as it can dislodge the sensitive devices that are attached to the monitor. Also, if the baby moves the doppler and tocodynamometer must be moved to another position which requires mom to be still again, regardless of discomfort. EFM may be indicated for high-risk women, but it has not yet been proven to improve outcomes vs. auscultation. EFM is associated with higher intervention rates and c-sections. In some facilities, a *telemetry* model is available which allows for more movement of the mother, as she is not strapped to wires...however, there is still the concern of the doppler and tocodynamometer becoming dislodged.



☞ The final way is Internal Fetal Monitoring (IFM). This is accomplished only after some dilation of the cervix has occurred and the mother's water has broken, either by spontaneous rupture of the membranes (SROM) or by artificial rupture of the membranes (AROM). For monitoring contractions, a pressure sensitive device (IUPC or intra uterine pressure catheter) is inserted into the mother's vagina and then into the uterus alongside of the baby's body (this does not hurt the baby, but is not comfortable for mother and further restricts movement) and looks like a long, flexible tube. This tube is then taped or strapped to the mother's thigh to keep it in place. This is a much more accurate way of assessing the strength of contractions than EFM. To assess the baby's heart rate, a catheter like tube containing an internal



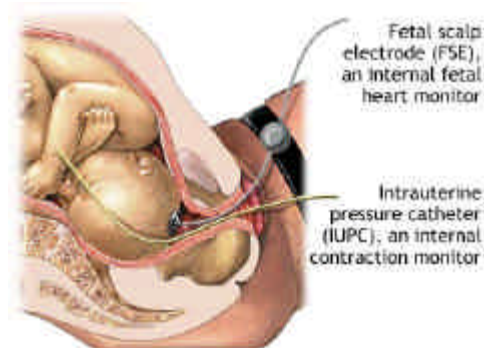
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electrode is inserted into the mother's vagina and into her uterus, where the doctor or nurse-midwife will affix the electrode into the baby's scalp. He does this by screwing the spiral electrode into the baby's scalp (it is not merely "placed" there as medical literature and patient brochures are worded, but inserted beneath the scalp causing discomfort to mother during placement and pain for baby upon insertion).

Once it is in place, the doctor then

retracts the protective sheath from the catheter (this shielded the mother's vaginal tissues from accidental puncture on the way to the baby) and straps or tapes the protruding wire to the mother's leg. Both of these devices are connected to the monitoring device where the printout of the mother's contraction patterns and baby's heart rate are observed, recorded, and transmitted. Internal fetal monitoring is used



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because of the ineffectiveness statistically of EFM (in other words, because it is more accurate). IFM severely restricts the movement of the mother and in most cases the mother is not aware that the baby's electrode is screwed into his/her scalp, causing it pain. A mother is resigned to bed at this time, as movement could dislodge the internal probes should she get out of bed or walk around. Internal monitoring is usually indicated when external fetal monitoring is deemed inaccurate and the mother's provider wishes to have better readings of the baby's heart rate and of the mother's contractions.