Non-Stress Test (NST)

What is it?

A non-stress test is a technique for evaluating how well the placenta is functioning and thus the well-being of the fetus in the uterus. By watching the response of the fetal heart rate to fetal movement, we can get a good idea of how well the placenta is meeting the fetus’ needs.

Why is it done?

NST’s are done for several reasons. Most common is post-maturity, or going beyond the due date. Others may include high blood pressure, maternal diabetes, toxemia, and decreased fetal movement. These are all conditions that may be associated with decreased placental function.

How is it done?

Before an NST, you should eat a meal or a snack to promote fetal activity. You will be positioned comfortably and the external fetal monitors will be fastened to your abdomen with elastic straps. You will be given a “button” to push whenever you feel fetal movement. The test takes 20-40 minutes, depending on whether the fetus is awake or asleep at the beginning of the test.

How are results determined?

An NST is considered “good” or reactive, if the fetal heart rate increases, or accelerates, with fetal movement. We like to see at least 2-3 fetal heart rate accelerations in a 10 minute period. If the test is reactive, the NST may be repeated at weekly intervals until delivery to monitor continued fetal well-being.

If accelerations are not seen, we may change your position, stimulate the baby, give you a snack or ask you to walk for a while, and then re-monitor. A borderline or non-reactive tracing may require a repeat or further testing.

If contractions are noted on the monitor, we can assess the fetus’ response to the contractions as well as to fetal movement. On occasion, we may ask you to try “nipple stimulation” to create spontaneous contractions. This constitutes a “contraction stress test”.

An official contraction stress test is rarely indicated. This involves giving small amounts of oxytocin intravenously until there are enough mild contractions (3 in 10 minutes) to judge the baby’s response to them. This test is done in the labor room.