

Fetal Testing

What is fetal testing?

While you are pregnant your health care team has many ways to check on your baby's well being. Your baby's heartbeat, movements, and growth are noted during routine prenatal visits. Sometimes we need to do additional tests to learn more about your baby's health. The tests explained here are safe and will not harm your baby. Most are used only when there is a higher than normal risk of problems, such as:

- When a baby's movements decrease greatly
- When a mother has high blood pressure, diabetes, or other medical problems
- When a baby seems to be not growing enough
- When a pregnancy lasts more than a week beyond a woman's due date
- When an earlier pregnancy ended in stillbirth
- Findings during ultrasound or other screenings

What are these tests and how are they done?

Non stress test (NST)

A non-stress test (NST) tells us how your baby's heartbeat responds to his or her movements. Any contractions (tightenings of the uterus) are noted, too.

You will be in a semi-sitting position for the test or lying on your side. A belt that holds two disks will be wrapped around your belly. One disk is coated with a gel that helps transmit your baby's heartbeat so it can be monitored. The other disk picks up any contractions of your uterus. You may be asked to press a hand-held button each time you feel the baby move.

The NST machine records the baby's heartbeat and your contractions on a strip of paper. Patterns in the heartbeat tell us how you baby is doing. Studies show that an active baby whose heartbeat rises when he or she moves is almost always healthy. This is called a **reactive NST**. Some babies' heartbeats don't vary much (a **nonreactive NST**). Such a baby may just be sleeping. We often try to make the baby more active by having you change position or drink something icy or sweet. Sometimes a baby's heartbeat will fall (decelerate), which can have a range of meanings. Your clinician will consider your situation and discuss it with you.

An NST occasionally takes as little as 20 minutes, but plan on 30-60 minutes or longer. After the test is done, your clinician will discuss the results with you. The NST is only a screening test. It is reassuring if the results are normal, but often not helpful otherwise. If an NST stays nonreactive or an abnormal pattern appears, you may be asked to repeat the test later or have another type of test.

Sometimes the follow-up test is done at an ultrasound center or a hospital.

An NST may be done just once, but often it is repeated once or sometimes twice a week. **Be sure you know if and when the test should be repeated.** If possible, schedule the test for a time when your baby is usually active.

Ultrasound and the biophysical profile (BPP)

Ultrasound uses sound waves to form a picture of tissues, fluid, and organs. Sometimes ultrasound is used to evaluate how a baby is doing by estimating the baby's weight, the amount of amniotic fluid, or the blood flow through blood vessels in the umbilical cord.

An ultrasound test called a **biophysical profile** checks your baby's muscle tone and several types of movements. It also shows how much fluid surrounds him or her. You might have this test if your NST was non-reactive, if you have passed your due date by more than a week, or in certain higher-risk situations.

During an ultrasound test, you lie on an exam table while a clinician or technician puts a gel on your belly. The gel helps an imaging tool called a **transducer** slide easily on your skin and send sound waves through your body. These sound waves form a picture on a monitor. Most ultrasound tests, including the biophysical profile, take 10-30 minutes.

Oxytocin challenge test (OCT)

The **oxytocin challenge test (OCT)** is done much less often than other fetal tests. It shows how your baby responds to contractions of your uterus. The fetal heart rate is recorded while a drug called oxytocin (Pitocin) is used to cause mild contractions. The drug is given by IV (a thin plastic tube with a needle inserted in a vein in your arm).

How long an OCT takes depends on how long it takes you to have three contractions in 10 minutes. This is required to complete the test.

What if a test result is not normal?

Fetal testing can help assess if your baby is well and reacting normally. A normal test result is reassuring. Abnormal results can alert your clinician that your baby may be having a problem. Your clinician will consider the test results, the baby's maturity, the reason you had the test, and your health to decide on a safe plan of action. Sometimes this means more tests and close observation. Less often, an early delivery may be done to help insure the well being of your baby and you.

What can I do to help monitor my baby's well-being?

Take care of yourself and pay attention to baby's movements. See Fetal Movement handout.