

Screening Ultrasound

Fetal Ultrasound

A fetal ultrasound exam is a procedure that uses high-frequency sound waves to scan a woman's abdomen and pelvic cavity to create an image of the developing baby (fetus) and the placenta. An ultrasound can be performed at any time during the pregnancy; however, the information obtained from the test depends on the stage of pregnancy. For example, in early pregnancy, an ultrasound may be used to confirm the stage of pregnancy (determine the date of expected birth) and to check if there is more than one baby. Between 11 and 14 weeks of pregnancy (also called the gestational age) an ultrasound may be performed in order to measure the Nuchal Translucency, information which can predict the chance of having a baby with a birth defect. In early pregnancy, for the purposes of detecting birth defects, ultrasound is used as a screening test.

At 18 to 20 weeks of pregnancy, a detailed ultrasound examination, called an anatomy scan, can check the baby's growth and detect certain structural (physical) birth defects such as brain, heart, lung, spinal, kidney and stomach and intestinal defects, just to name a few. At this stage in pregnancy an ultrasound can be used as both a screening and a diagnostic test. An anatomy ultrasound does not tell you if your baby has Down syndrome or any chromosome abnormality. Moreover, a normal ultrasound cannot guarantee the baby will be normal. Here are answers to some common questions about ultrasound.

What happens during an ultrasound?

Fetal ultrasound uses sound waves to create an image of the developing baby before birth. The "echoes" caused by sound waves bouncing off the different body tissues are converted into a picture of the fetus. Fetal ultrasound examinations are done by people who have had specialized training. They can be doctors, nurses or ultrasound technicians. The term sonographer refers to the person performing the exam, not their professional designation.

While lying down on an examination table, a gel is applied to the abdomen. A device called a transducer (which sends sound waves into the abdomen) is gently rolled over the surface of the abdomen. As the sonographer slowly moves the transducer over the abdomen, the reflected sound waves create an image of the baby on a nearby monitor. A screening ultrasound can take from 15 minutes to half an hour.

What does the sonographer look for during an ultrasound?

Ultrasound exams are used to detect or aid in the detection of abnormalities and conditions related to pregnancy. An ultrasound exam is used throughout pregnancy for the following reasons:

First Trimester:

- Confirm heartbeat
- Measure the crown-rump length or gestational age
- Count the number of babies
- Check for ectopic pregnancies
- Perform a Nuchal Translucency

Second Trimester:

- Check for structural (physical) abnormalities
- Check growth and confirm gestational age
- Confirm heartbeat

Third Trimester:

- Identify placental location
- Confirm heartbeat
- Observe baby's presentation
- Observe baby's movements
- Check the amount of amniotic fluid around the fetus/baby

An ultrasound can also be used to help doctors find the baby, placenta and amniotic fluid during diagnostic tests and procedures such as amniocentesis.

What are the risks involved?

There are no known risks to the mother or baby from this procedure. An ultrasound does not use x-rays or other types of potentially harmful radiation and can be done as early as the 5th week of pregnancy.

NT: Nuchal Translucency

A nuchal translucency (NT) ultrasound refers to an ultrasound performed between 10 - 14 weeks in pregnancy which measures the thickness of the skin fold behind the fetal neck (known as the nuchal region). This is done because an NT measurement combined with information regarding the mother's age and age of the fetus can provide a couple with an individual risk for having a child with Down syndrome.

Anatomy Scan

The purpose of an anatomy scan is to check the development of the baby. It is usually performed between 18 to 20 weeks gestation. As part of an anatomy scan the organs such as the head, brain, face, spine, arms, hands, fingers, heart, lungs, bowels, kidneys, bladder, legs and feet are seen and documented. The umbilical cord, the amount of fluid around the baby as well as the position of the placenta are also checked for any abnormalities.