Prenatal ultrasound, also known as sonogram, is an imaging technique that is used to look at a fetus during the pregnancy. Ultrasound involves using sound waves that reflect off of the different parts of the baby to generate a picture. This picture can be used to take measurements, which can be used to verify how far along a pregnancy is and to monitor growth throughout the pregnancy. Ultrasound can also be used to screen for birth defects, such as spina bifida, heart defects, and cleft lip.

It is fairly common to have at least one ultrasound during pregnancy. However, some women may have an earlier ultrasound or more ultrasounds if they have bleeding, pain, or other concerns are identified on an initial ultrasound.

Currently, there is no reliable evidence that ultrasound is harmful to a developing baby. For example, there have been no associations between ultrasound and birth defects, childhood cancer, or developmental delays later on in life.

However, according to the American College of Obstetricians and Gynecologists patient information on ultrasound, it is possible that harmful effects could be identified down the road. Their recommendation is that ultrasounds be performed only for medical reasons by qualified health care providers.

There are generally two types of ultrasounds that are used during pregnancy to screen for genetic conditions and birth defects: the first trimester ultrasound, and the anatomy ultrasound.

Overview

First Trimester Ultrasound

The first trimester ultrasound is usually done in the first trimester (from conception up until about 14 weeks), and the baby is small at this time, only a few inches in length. Although the fetus is still very little, there are some important things that this ultrasound can tell us:

- It can verify the presence of a viable pregnancy
- It can estimate how far along the pregnancy is
- It can see if there is more than one fetus (twins, triplets, etc)
- It can measure a pocket of fluid behind the fetus' neck called the nuchal translucency (NT)
    - If the NT measurement is larger than expected, it can increase the risk for chromosome conditions, such as Down syndrome, as well as heart defects

A normal first trimester ultrasound does not guarantee a healthy baby, but it does lower the chance for certain birth defects and genetic conditions.

Anatomy/Level 2 Ultrasound

The anatomy (or level 2) ultrasound, usually done around 20 weeks, is where a lot of measurements are taken. The fetus is checked out from head to toe, and measurements are taken of its head, limbs, and abdomen. During this screening test, the doctor will also look at important organs, such as the heart, the brain, and the kidneys. This is usually the ultrasound where the gender of the baby can be determined. The anatomy ultrasound can also make sure the placenta looks healthy, and that there is the right amount of amniotic fluid around the baby. Much like the first trimester ultrasound, a normal anatomy ultrasound does not guarantee a healthy baby, but it can lower the risk for certain birth defects and genetic conditions.

While most anatomy ultrasounds are completely normal, there are occasions when the doctor may find something that looks different on an ultrasound. These difference can be broken down into two categories: structural abnormalities (birth defects) and minor markers.

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