Ultrasound During Pregnancy

Ultrasound imaging, also known as sonography, uses inaudible sound waves to produce images of the different structures in your body. During an ultrasound examination, a small, hand-held device called a transducer is pressed against your skin. It generates high-frequency sound waves that pass through your body, sending back echoes as they bounce off organs, vessel walls and tissues. Special computer equipment then converts these echoes into an image.

Because ultrasound uses sound waves instead of radiation, it is a safe way to image a pregnant woman and her unborn child. Obstetrical ultrasound is used to assess the baby’s well-being and position, diagnose multiple gestations (twins, triplets, etc.) and estimate a delivery date. If the baby is old enough and positioned correctly, its sex also can be determined. However, it’s important for you to know that not all abnormalities can be identified by ultrasound.

During the Examination

Total examination time is usually around 30 minutes. You will be asked to lie on your back or side on the examination table and expose the lower part of your abdomen. Next, the sonographer will apply an odorless, water-soluble gel to your skin on the area being imaged. The gel makes it easier for sound waves to travel through your body. The gel is sticky, but it wipes off easily at the end of the exam.

After the gel is applied, the sonographer will move the transducer over your abdomen. As the transducer sends out sound waves and receives echoes, they are relayed to a computer and displayed as a real-time picture on a screen that looks like a television monitor. The sonographer can view the images during the procedure, and often you will be able to see the images as well. Selected pictures can be saved on paper, film, videotape or in a computerized format to be reviewed by your physician.

During the procedure, you will feel pressure from the transducer as it moves over your skin. At times, the sonographer may need to press your abdomen firmly to get a better image of your baby. In some instances, the pressure may feel uncomfortable, especially if your bladder is full, but the discomfort is temporary. The sonographer might ask you to change your position or hold your breath for a few seconds so that he or she can obtain certain images.

When the exam is complete, your ultrasound scans will be given to a radiologist, a physician who specializes in the diagnostic interpretation of medical images. Other physicians who might interpret ultrasound exams include obstetricians and gynecologists.

Postexamination Information

After your ultrasound images have been reviewed by a radiologist, your personal physician will receive a report of the findings. Your physician then will advise you of the results and discuss what further procedures, if any, are needed.

There are no known side effects or aftereffects from ultrasound imaging, and it is not necessary to take any special precautions following your examination.

Ultrasound image of an unborn child.

Patient Preparation

You should wear a comfortable two-piece outfit on the day of your examination. If you are in the early stages of pregnancy, you might be asked to drink several glasses of water before the procedure because sound waves travel more easily through the fluid in your bladder. You also might be advised to avoid drinking carbonated beverages before the examination because the air bubbles can interfere with the image.

Before the exam begins, a sonographer will explain the procedure to you, ask questions about your health, ask why your physician requested the exam and answer any questions you have. A sonographer is a skilled medical professional who has received specialized education in the areas of anatomy, patient care, imaging techniques and ultrasound procedures.