OBSTETRIX MEDICAL GROUP
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ULTRASOUND INFORMATION

What is ultrasound Imaging?

Ultrasound imaging, also called ultrasound scanning involves the use of a small transducer (probe) and ultrasound gel to expose the body to high-frequency sound waves. Ultrasound is safe and painless, and produces pictures of the inside of the body using sound waves. Ultrasound examinations do not use radiation like x-rays. Because ultrasound images are captured in real-time, they can show the structure and movement of the woman's internal organs and the fetus. Ultrasound imaging is a noninvasive medical test that helps physicians diagnose and treat medical conditions or complications with the pregnancy.

Obstetrical ultrasounds provide pictures of an embryo or fetus within a woman's uterus, as well as the mother's uterus and ovaries.

What are some common uses of an obstetrical ultrasound?

An obstetrical ultrasound is a useful clinical test to:

- Establish the presence of a living fetus.
- Estimate the age of the pregnancy.
- Diagnose congenital or structural abnormalities of the fetus.
- Evaluate the position of the fetus.
- Evaluate the position of the placenta.
- Determine if there are multiple pregnancies.
- Determine the amount of amniotic fluid around the baby.
- Check for opening or shortening of the cervix.
- Assess fetal growth.
- Assess fetal well-being.

Some physicians also use 3-D ultrasound to image the fetus and determine if it is developing normally.

How should I prepare?

You should wear a loose-fitting, two-piece outfit for the examination. Only the lower abdominal area needs to be exposed during this procedure. The perinatologist may elect to examine an early pregnancy by means of a transvaginal ultrasound in order to see the pregnancy more closely or to assess the cervix and cervix length.

What does the equipment look like?

Ultrasound scanners consist of a console containing a computer and electronics, a video display screen and a transducer that is used to do the scanning. The transducer is a small hand-held device that resembles a microphone, attached to the scanner by a cord. The transducer sends out inaudible high frequency sound waves into the body and then listens for the returning echoes from the tissues in the body. The principles are similar to sonar used by boats and submarines. The ultrasound image is immediately visible on a video display screen that looks like a computer or television monitor.

How does the procedure work?

In medicine, ultrasound is used to detect changes in appearance of organs, tissues, and in pregnancy to see and assess the fetus. When the transducer is pressed against the skin, it directs small pulses of inaudible, high-frequency sound waves into the body. As the sound waves bounce off of internal organs or fluids the sensitive microphone in the transducer records tiny changes in the sound's pitch and direction. These signature waves are instantly measured and displayed by a computer, which in turn creates a real-time picture on the monitor. One or more frames of the moving pictures are typically captured as still images or pictures.

The movement of the embryo or fetus and his or her heartbeat can be seen as an ongoing ultrasound movie. Most ultrasound devices also have an audio component that processes the echoes produced by blood flowing through the fetal heart, blood vessels and umbilical cord. This sound can be made audible to human ears and has been described by patients as a 'whooshing' noise.

CONTINUE & SIGN ON BACK

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How is the procedure performed?

For most ultrasound exams, the patient is positioned lying face-up on an examination table that can be tilted or moved. After you are positioned on the examination table, the sonographer will apply a warm water-based gel to the area of the body being studied. The gel will help the transducer make secure contact with the body and eliminate air pockets between the transducer and the skin that can block the sound waves from passing into your body. The transducer is placed on the body and moved back and forth over the area of interest until the desired images are captured.
There is usually no discomfort from pressure as the transducer is pressed against the area being examined. However, if scanning is performed over an area of tenderness, you may feel pressure or minor pain from the transducer.

Once the imaging is complete, the clear ultrasound gel will be wiped off your skin.
Sometimes the radiologist determines that a transvaginal scan needs to be performed. This technique often provides improved, more detailed images of the uterus, ovaries and fetus. This method of scanning is especially useful in early pregnancy.

Transvaginal ultrasound is performed very much like a gynecologic exam and involves the insertion of the transducer into the vagina after the patient empties her bladder. The tip of the transducer is smaller than the standard speculum that is used when performing a Pap smear. A protective cover is placed over the transducer, lubricated with a small amount of gel, and then inserted into the vagina. Only two to three inches of the transducer end are inserted into the vagina. The images are obtained from different orientations to get the best views of the uterus, ovaries and fetus. Transvaginal ultrasound is usually performed with the patient lying on her back, possibly with her feet in stirrups similar to a gynecologic exam. With transvaginal scanning, there may be minimal discomfort as the transducer is inserted into the vagina.

What will I experience during and after the procedure?

Ultrasound examinations are painless and easily tolerated by most patients.
However, at times during an obstetrical ultrasound, the sonographer may have to press more firmly to get closer to the embryo or fetus to visualize the structure better. Any discomfort is usually minimal and temporary. With transvaginal scanning, there may be minimal discomfort as the transducer is inserted into the vagina.

This ultrasound examination is usually completed within 30-60 minutes. It may take a little longer if there is more than one fetus or if there is a known problem with the pregnancy.
When the examination is complete, the patient may be asked to dress and wait while the ultrasound images are reviewed.
After an ultrasound examination, you should be able to resume your normal activities immediately.

Who interprets the results and how do I get them?

The perinatologist will analyze the images and send a signed report to your primary care physician, or to the physician or other healthcare provider who referred you for the exam, who will share the results with you. In some cases the perinatologist may discuss results with you at the conclusion of your examination.
Follow-up examinations may be necessary, and your doctor will explain the reason why another exam is needed. Sometimes a follow-up exam is done because a suspicious or questionable finding needs clarification with additional views or a special imaging technique. A follow-up examination may be necessary so that any change in a known abnormality can be monitored over time. Follow-up examinations are sometimes the best way to see if treatment is working or if an abnormality is stable over time.

If you have questions concerning the ultrasound, please do not hesitate to discuss these with the perinatologist or your doctor.

You are requested to sign this document before your ultrasound to acknowledge that you have read this information and that you give your consent for this examination.

We do not permit video taping or recording on your cell phone or other device any part of the ultrasound exam.

ALL ELECTRONIC EQUIPMENT MUST BE TURNED OFF DURING YOUR ENTIRE VISIT.

_____ _____
Printed name Date of Birth

_____ _____
Signature Date of Signature