

Ultrasound

What is an ultrasound?

Ultrasound, or sonography, uses sound waves to develop ultrasound images of what's going on inside the body. An instrument called a transducer emits high-frequency sound, inaudible to human ears, and then records the echoes as the sound waves bounce back to determine the size, shape, and consistency of soft tissues and organs. Doppler is a special type of ultrasound that makes images of blood flow through the vessels.

Most ultrasounds are done using a transducer on the surface of the skin. Sometimes to get a better diagnostic view the technician can insert the transducer into one of the body cavity's natural openings such as the vagina, the rectum, or into the mouth.

Ultrasounds are painless and do not require needles, injections, or incisions. There is no exposure to radiation. Ultrasounds can capture soft tissue images that sometimes don't show up on x-ray all that well.

Why is an ultrasound performed?

Ultrasound imaging is helpful during pregnancy as well as diagnosing a wide variety of conditions affecting the organs and soft tissues. Sound waves do not transmit through dense bones or parts of the body that hold air like the lungs or bowel, so they have some limitations. At times, ultrasound is used to aid in procedures like needle biopsies.

How do I prepare for an ultrasound?

Patients should not have anything to eat or drink 8 hours prior to appointment when having an ultrasound of the pelvis and/or abdomen. Pediatric patients having abdominal ultrasounds should not eat or drink 4-6 hours prior to appointment. Small sips of water are allowed. Adult patients requiring pelvic and abdominal ultrasounds need to drink 32oz of water an hour prior to their scan and hold their bladder to ensure it is full during the scan. Pediatric patients requiring pelvic ultrasounds (12 years and under) need to drink 16oz of water an hour prior to their appointment.

Patients having a renal or kidney ultrasound should not have anything to eat or drink 6 hours prior to appointment and need to drink 32oz of water prior to scan.

Renal and pelvic ultrasounds cannot be performed together at one appointment as they require images with a full bladder and an empty bladder. These scans need to have separate appointment times to allow for preparation requirements to refill the bladder between exams.

What should I expect during an ultrasound?

Depending on the type of ultrasound test you are having, your doctor may offer special instructions, such as not eating or drinking anything for a number of hours before the test. Or you may be advised to drink several glasses of water in the time leading up to the test and refrain from using the bathroom to ensure that your bladder is full.

You should wear comfortable clothing that is easy to remove or partially remove. In some cases, you may need to wear a gown, but often an ultrasound technician can easily access the area of the body that is being screened without your having to take off your clothes.

The technician will apply a water-based gel to the area. This is so the transducer can easily glide across your skin without any air in between. He or she may be looking for specific markers and may make measurements or notes while the test is in progress.

1st trimester ultrasounds, usually 13 weeks and under also consist of a transvaginal scan.

How long does an ultrasound take?

Usually an ultrasound takes between 30-60 minutes, unless scanning twins which takes about 90-120 minutes. You are awake and alert during the procedure. Often a sonographer will discuss what he or she is seeing during the test, however, the sonographer is not allowed to discuss results or findings of the exam. All results need to be discussed with your doctor.

How will my results be communicated?

After the radiologist has reviewed and interpreted your ultrasound images, a report will be sent to the ordering physician. Your physician will explain the meaning of your test results with you and next steps for your treatment and care plan.

How can I get a copy of my results?

Imaging results can be downloaded onto a CD for you to keep or share with other physicians. At times, electronic medical records allow other physicians to view the images if they have the same electronic system. Please allow 24 hours for film requests. Contact the imaging department for all film requests 540-785-7200. Films can be picked up at requested location. Charges may apply when requesting personal records.

Additional considerations:

It is not recommended to bring children under the age of 14 to your appointment unless accompanied by another responsible adult.

If appointments must be cancelled, please give us 24 hours' notice. If this is not possible, notify the office ASAP that you are not able to keep the appointment.

Please arrive 10-15 mins prior to appointment to allow time for the check-in process and appropriate questionnaires to be completed.