

## **What is an ultrasound?**

Ultrasound (also called sonography or ultrasonography) is a noninvasive diagnostic imaging test. It uses high-frequency sound waves to create real-time pictures or video of internal organs or other tissues, such as blood vessels.

Ultrasound enables healthcare providers to “see” details of soft tissues inside the body without making any incisions.

## **How does ultrasound work?**

Ultrasound works similarly to sonar technology, which uses sound waves to detect objects beneath the ocean’s surface. Healthcare professionals called diagnostic medical sonographers are trained to use an ultrasound probe. The probe is a device that emits sound waves.

A sonographer puts a special gel on the body part they will examine. They pass the probe over or inside that area. Sound waves from the probe bounce off internal tissues. The sound waves create a live picture and display it on a computer screen nearby. You can’t hear the sound waves.

## **Why do healthcare providers perform ultrasound tests?**

Healthcare providers commonly use ultrasound to check an unborn baby’s health and development during pregnancy. Ultrasound can also help your provider learn more about what’s causing a wide range of symptoms (such as unexplained pain, lump or inflammation).

Your provider may recommend an ultrasound to evaluate organs and glands in your body:

1. Digestive system (such as the liver, pancreas or gallbladder).

2. Urinary system (such as the kidneys or bladder)
3. Spleen.
4. Testicles.
5. Female reproductive system (such as the ovaries or uterus).
6. Thyroid.

### **How should I prepare for an ultrasound?**

Certain factors (like having a full bladder or stomach) can make ultrasound pictures turn out more or less detailed. Your healthcare provider will give you instructions before your test to help ensure clear images.

You may not need to do anything to prepare. Or your provider may ask you to:

- Avoid using the bathroom before your scan.
- Drink a specific amount of water right before your scan.
- Stop eating or drinking a certain number of hours before having an ultrasound.

### **How is an ultrasound performed?**

Preparation varies depending on what body part you'll have scanned. Your provider may ask you to remove certain pieces of clothes or change into a hospital gown. For the scan, you will lie on your side or back on a comfortable table. An ultrasound test usually takes 30 minutes to an hour.

### **During the test, a trained professional:**

- **Applies gel:** You'll have a small amount of water-soluble gel on your skin over the area to be examined. This gel does not harm your skin or stain your clothes.

- **Uses the scanner:** The technician moves a handheld instrument over the gel. The scanner may move on your skin or inside your body.
- **Asks you to hold still:** The provider may tell you to hold your breath for a few seconds. Being very still can help create clearer pictures.
- **Cleans your skin:** The technician wipes off any remaining gel on your skin.

### **What should I expect after an ultrasound?**

- 1) After the test, the technologist sends the images to our board-certified radiologists (doctor who specializes in reading medical images) for review.
- 2) After radiologists review your ultrasound pictures, they send a written report to your provider. Your provider discusses the test results with you. You usually get results within days of your test.

### **What can ultrasound detect?**

Ultrasound can help providers diagnose a wide range of medical issues, including:

- Abnormal growth (tumor), such as cancer, ovarian cysts or thyroid nodules.
- Enlarged spleen.
- Ectopic pregnancy (when a fertilized egg implants outside of the uterus).
- Gallstones.
- Kidney or bladder stones.
- Cholecystitis (gallbladder inflammation).
- Varicocele (enlarged veins in the testicles)

