



Thank you for choosing Emory Radiology for your diagnostic ultrasound exam. On behalf of our team, I welcome you to our facility. As you will read in this guide, Emory Radiology provides you and your physician with specialized expertise, the latest in imaging technology and

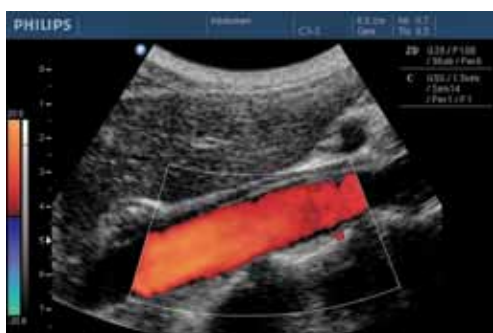
a multidisciplinary approach to diagnosis and care. At any time, please feel free to ask questions of any member of our team.

Carolyn Meltzer, MD, FACR
Department Chair

About Ultrasound

Ultrasound is a safe and effective medical procedure that uses sound waves at a frequency higher than is audible to the human ear to create images of internal organs. Most people associate ultrasound exams with pregnancy. However, diagnostic ultrasound exams may be used to evaluate many parts of the body.

You may have heard of sonar or Doppler sound waves being used to locate fish in the fishing industry or to detect weather on your news channel. The technology used by our ultrasound machines is similar, but for medical ultrasound we use Doppler in addition to imaging to obtain pictures of the body.



Why Is Ultrasound Used?

Ultrasound is used to evaluate many organs and structures, including the liver, kidneys, pancreas, gallbladder, bile ducts, heart, vascular system and spleen. For women, ultrasound is also used to examine the breasts, uterus, ovaries and, during pregnancy, the fetus. Additionally, ultrasound is used to guide procedures such as needle biopsies and fluid drainages.

How Does Ultrasound Work?

Ultrasound uses a device known as a transducer to send high-frequency sound waves into the body. The sonographer will place the transducer on your skin for most exams. Sound waves emitted by the transducer reflect off of internal structures and are transmitted back to the ultrasound machine, thus producing images of the area of interest.

The sonographer will place gel on your skin to improve transmission of the sound waves. We keep the gel warm for your comfort.



Emory – Dedication to Advanced Technology

Because Emory Radiology is part of a world-class, university-based health-care system, we have access to some of the most advanced ultrasound technology available. In addition, we work closely with the equipment manufacturers to develop new ultrasound imaging systems, advance imaging technology and discover better ways to diagnose disease at the earliest possible stages.

Our Team

At Emory, state-of-the-art equipment is only part of the story. Your sonographer is certified by the American Registry for Diagnostic Medical Sonography. While you may only have direct contact with the sonographer who performs your exam, it is important to know there is also a multidisciplinary team of specialized physicians, engineers and scientists responsible for making sure your exam is performed to the highest possible standards. This team interprets your exam results and works closely with your doctor to develop an accurate diagnosis and the most appropriate treatment plan for you.

Our radiologists also teach at Emory University School of Medicine and participate in cutting-edge university-based research. As a result, they are uniquely qualified to provide the best, most up-to-date treatments and techniques with skill and confidence. And because they work within particular specialties – and often subspecialties – their training and exposure to specific diseases and conditions are unmatched in the community. This level of skill and training translates into more accurate results and fewer re-exams, saving valuable time and resources for everyone involved.

Is Ultrasound Safe?

The sound waves used in diagnostic ultrasound imaging produce no known health risks of any kind and are associated with no side effects.¹ Ultrasound does not use X-rays or any other form of ionizing radiation and can be repeated safely and easily as needed. And because ultrasound imaging is less expensive than other imaging modalities, it helps control health-care costs.

Preparing for Your Ultrasound Exam

Ultrasound exams generally are covered by insurance plans, but you or your physician may be required to obtain authorization from or provide documentation of medical necessity to your insurance provider prior to your exam.

You should call Fast Track Admissions prior to your exam date to pre-register. You may call up to 30 days in advance of your exam.

- For exams scheduled at Emory University Hospital, call 404-686-5270 or 1-800-640-9293.
- For exams scheduled at Emory University Hospital Midtown, call 404-686-1573.
- Fast Track Admissions also may be required for exams scheduled at The Emory Clinic. Please call 404-778-XRAY or ask your scheduler at the time you make your appointment.



Leading up to your exam:

- Some exams require no preparation. For other exams, we may ask you to restrict your eating and drinking for a specified period of time, or we may ask you to drink liquids to fill your bladder. Your doctor or the sonographer will provide specific instructions as necessary.
- If available, please bring copies of any previous non-Emory Healthcare X-ray, CT (computed tomography) or MRI (magnetic resonance imaging) results and images with you to the imaging center.

A diagnostic ultrasound takes approximately 30 to 45 minutes, but you should expect to be at the imaging center for one to two hours.

The Day of Your Ultrasound Exam

Plan to arrive 30 minutes before your appointment time. Wear comfortable clothing. Certain exams require that you change into a hospital gown, but many do not.

The Ultrasound Procedure

For most diagnostic ultrasound exams, you will be asked you to lie on an examination table. The sonographer will apply gel to your skin in the area of interest and then pass the transducer firmly over the targeted area.

You may notice the sonographer typing labels onto images and making measurements during your procedure. The sonographer also may ask you to perform relatively simple tasks to aid in capturing the necessary images. For example, you may be asked to turn a certain way, hold your breath or remain still for a short period of time. Once the sonographer is satisfied with the images and the exam is complete, he or she will wipe the gel off your body.

The sonographer will then review the images he or she has obtained with the radiologist. A radiologist is a medical doctor who has undergone at least four years of specialized training in diagnostic radiology following medical school. The radiologist will compare our ultrasound images with your prior imaging results and medical records, if available. The radiologist will then create a report for your doctor. Because we want to compile all of your information before issuing a report, our sonographers are instructed not to tell you preliminary results during your study.

Some ultrasound procedures are more invasive. For example, if you are a woman and are going to have a pelvic ultrasound exam, the sonographer may need to insert a special transducer into your vagina in order to obtain the best possible pictures of your ovaries and uterus. Rest assured that our transducers are fitted with sanitary probe covers before insertion and are sterilized after each use.

Following Your Ultrasound Exam

Following your exam, you should feel fine and may immediately return to your normal activities unless the sonographer or your doctor tells you otherwise.

We read and interpret the results shortly after your exam is complete. We will call critical results to your physician immediately. Non-critical results are generally available to your physician's office within two to three business days. Your referring physician will contact you once the results are ready for review.

Contact Us

Ultrasound is available at Emory University Hospitals and many Emory Clinic locations. For more information, visit www.emoryhealthcare.org/radiology or call 404-778-7777.

References

1. Radiological Society of North America (RSNA). General Ultrasound Imaging. Available at www.rsna.org. Accessed September 19, 2008.
2. Radiological Society of North America (RSNA). RadiologyInfo. Available at: www.radiologyinfo.org.

