



Ultrasound – What it is and How it Works

What is UltraSound?

Ultrasound imaging is a safe, painless test that helps physicians diagnose and treat a variety of medical conditions. It is a noninvasive imaging method that uses high-frequency sound waves to produce images of organs within your body which can help detect changes in appearance and function of your organs. Images are captured in real time, allowing the images to show movement of internal organs as well as blood flowing through vessels. A Doppler ultrasound test is used specifically to evaluate blood flow as it moves through your arteries and veins.

How does an Ultrasound Procedure Work?

During an ultrasound, a trained technician applies a clear gel to the area of your body that is being studied. The technician will then press a small hand-held device called a transducer against your skin. The gel helps to ensure there is contact between the transducer and your skin, eliminating any air pockets. The transducer generates and receives high-frequency sound waves. These sound waves are inaudible to the human ear. As the sound waves bounce off organs and tissue within your body, they are recorded by a microphone within the transducer. The transducer then sends the images produced by the echoing sound waves to a computer screen for viewing. An ultrasound procedure typically takes 30 minutes to one hour.

If you have questions about your ultrasound study, please call our Radiology department at (360) 428-2541.