

## Ultrasound by Mike DeCinti

Today we expect our TV, videos and pictures to be the best quality possible. Screens are getting bigger and our images are either digital or HD. We have high-resolution computer screens, flat panel TVs and digital picture frames. But there is a moment in a lot of people's lives when a grainy black and white image viewed on a tiny screen might be the best thing they've ever seen. I'm talking about the first time you get to see your baby on a sonogram. Of course at that time the image doesn't look much like a baby, but for my wife Alison and myself, we couldn't have been happier to see those first pictures.

Much of the general public is familiar with the use of medical ultrasound during pregnancy, however many people are unaware that ultrasound can be used throughout all stages of life for various medical indications. Next month is Medical Ultrasound Awareness Month, and Lumberton Radiological Associates would like to use this opportunity to familiarize and educate the public about medical ultrasound and its increasing role in health care. Diagnostic medical ultrasound is a procedure that uses high frequency sound waves (ultrasound) to produce dynamic images (or sonograms) of organs, tissues, or blood flow inside the body. It is used to examine a wide variety of body parts. Abdominal ultrasound can evaluate soft tissues and organs in the abdominal cavity; Breast ultrasound looks at abnormalities that are found with screening mammography; and it is also used to view the reproductive system, heart and blood vessels. Diagnostic ultrasound is increasingly being used in the detection of heart disease and vascular disease, as well as for the detection of injuries to the muscles, tendons and ligaments.

And unlike other medical imaging procedures, ultrasound does not use x-rays. Technological advancements in medical ultrasound have had a tremendous impact on the quality of health care over the past 50 years. Plus, the safety of ultrasound has allowed this noninvasive imaging to become an increasingly popular tool in medical diagnoses. An ultrasound examination involves using an instrument called a transducer, which works like a loudspeaker and microphone because it can transmit and receive sound. The transducer sends out a stream of high frequency sound waves into the body and detects their echoes as they bounce off internal structures, which all reflect sound waves differently. A computer then translates this information to generate images of the structure(s) on a monitor.

So who performs these procedures and what should you be looking for when considering a facility to perform your ultrasound? The first thing you want to make sure is that you visit an accredited facility. Practices that have obtained accreditation have demonstrated competency in every aspect of their operation. The next thing you want to be sure of is that the radiologic technologist who performs your procedure is certified. A certified medical sonographer is a highly skilled professional that plays a critical role in extracting the information necessary to derive a diagnosis. At Lumberton Radiological Associates, not only are the ultrasound technologists certified, but also the physicians are all board certified radiologists who are specifically trained in the reading of medical imaging.

So as October approaches, and most of our attention falls to Breast Cancer Awareness, it's important to be aware of the importance of ultrasound in our healthcare and know what your options are, to determine the best care for you and your family.

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