ULTRASOUND: FREQUENTLY ASKED QUESTIONS (FAQ)

What is an ultrasound?
Ultrasound, also known as a sonography, is an imaging technique used to detect many different kinds of cancers. It uses sound waves and their echoes to image the body’s internal structures. A computer collects the sound wave data and produces an image that allows the radiologist to look for abnormalities. Ultrasound is also commonly used to view the fetus inside a pregnant woman.

What can an ultrasound do that a mammography cannot?
An ultrasound is very good at examining abnormalities detected on a mammogram. It can determine whether a lesion is a fluid filled cyst or a solid mass. Cysts are much more likely to be benign than solid masses. Ultrasounds are also better than mammography when examining dense breasts.

What are “dense breasts’’?
The density of a breast is dependent on the relative amounts of glandular, fibrous and fatty tissue it has. Dense breasts contain high amounts of fibrous and glandular tissue and low amounts of fatty tissue. Dense breasts do not increase risk for breast cancer. Usually women 35 or younger have dense breasts.

Why is ultrasound better than mammography when examining dense breasts?
Dense breast tissue shows up white on a mammogram and fatty tissue shows up as black. Cancerous tissue also shows up as white on a mammogram. Therefore it is sometimes hard to distinguish dense tissue from cancerous tissue. On an ultrasound cancerous tissue shows up black and dense tissue is still white, therefore cancers are easier to distinguish.

Can I get an ultrasound instead of a mammogram?
Ultrasound does not replace mammography as a screening technique for breast cancer. In most cases it is used in combination with mammography when the results of a mammogram suggest that additional testing is needed or if there are significant symptoms present. If there are no lumps or other symptoms, a mammogram is usually enough to stay ahead of breast cancer. Under some circumstances, ultrasound is used instead of mammography. See the question below for more details.

Under what circumstances would I get an ultrasound instead of a mammogram?
There are a few cases where ultrasound may replace mammography as a screening exam:

1. Women with dense breasts. Ultrasound may provide an alternative view of the breast that shows different characteristics.
2. Women who are pregnant. Ultrasound takes the place of mammography as a screening tool in pregnant women because it won’t expose the fetus to radiation exposure used during mammography.
3. Women with breast implants. Ultrasound may provide an alternative image that won’t be distorted by the implants.
4. In women at high risk for breast cancer because of family history. Ultrasound used in combination with mammography is very good at detecting breast irregularities.

**Will the procedure hurt?**
Ultrasound is a painless, non-invasive exam. The device used for an ultrasound, called a transducer, simply rubs against the patient’s skin over the area being examined.

**How accurate is ultrasound?**
A recent study showed when mammography and ultrasound are used in combination they have a sensitivity of 98.1% in detecting cancerous lesions. Ultrasound and mammography in combination greatly reduce the chances of false positives and negatives. Watch videos about sensitivity and specificity and False Positive/Negative test results on www.cancerquest.org

**What is a false negative result?**
A false negative is when a ultrasound is read as 'negative' (i.e. no cancer) but the person being tested does have cancer. Watch a video about False Positive/False Negative test results

**What is a false positive result?**
A false positive is when an ultrasound is mistakenly interpreted as detecting cancer when the person being tested does NOT have cancer. Watch a video about False Positive/False Negative test results

**How should I prepare for an ultrasound?**
You will probably be asked to undress from the waist up and put on a gown, so it is best to wear a two piece outfit. Other than that there is no special procedure for an ultrasound. You do not have to fast or change your normal routine in any way.

**Is ultrasound safe if I am pregnant or breast feeding?**
Yes. Ultrasound is a very safe, non-invasive exam. If you are pregnant you should get an ultrasound instead of a mammogram to protect the fetus from radiation.

**Where can I get quality ultrasound exam?**
It is important that you have your ultrasound performed by an experienced technician. You can find an accredited ultrasound facility on the American College of Radiology website.
What do the results of an ultrasound look like?

Malignant Breast Tumor

Benign Breast Cyst