

Understanding breast imaging begins with understanding your breasts

Let's start with the breast basics. Your breasts have fatty tissue and dense tissue. Different women have different ratios of fatty to dense tissue in their breasts, though in general, breasts become less dense with age. Over 40% of women have dense breasts – a high proportion of dense breast tissue which can be a factor increasing a woman's risk of breast cancer.

A typical breast cancer screening begins with a standard mammogram, which may be followed up with an ultrasound if the doctor decides on the need to investigate further. Depending on different factors, such as your fat to dense tissue ratio in your breasts, the accuracy of these first line techniques may differ and results may be considered abnormal.

Following this primary workup, further testing might be needed to get a clearer picture.



DISCLAIMER

Contrast-Enhanced Spectral Mammography (CESM) is a prescription medical device that is limited to sale, distribution, or use, to or on the order of a physician. The medical risks of any mammography including CESM are radiation exposure, minor bruising or tearing of the skin. CESM requires the injection of an iodinated contrast agent which could cause mild to severe adverse reactions in some patients that could include, but are not limited to itching, hives, nasal congestion, and swelling about the eyes and face. In extreme cases more severe reactions can occur.

The use of contrast agents should be determined on an individual basis according to the clinical circumstances of each patient and the decision to use a contrast agent must be made according to the best judgment of the physician in charge of the examination. Please review the risk information with your doctor.

1. Barton MB, Morley DS, Moore S, Allen JD, Kleinman KP, Emmons KM, Fletcher SW. Decreasing women's anxieties after abnormal mammograms: a controlled trial. J Natl Cancer Institute 2004;96:529-38.

©2014 General Electric Company – JB17509US

Waiting for answers after an abnormal mammogram?

*Know sooner with
Contrast-Enhanced
Spectral Mammography
(CESM)*



Each year in the US, **5-11% of women** who undergo routine mammograms are called back in for further testing because of abnormal results.

Research has shown that the anxiety a woman experiences while she waits for more testing can have long-term effects¹.

CESM helps turn "abnormal" into answers. Sooner. Rather than wait days or weeks for follow-up test after abnormal mammogram, you can have CESM soon afterwards - in some cases, on the very same day.

Understanding Breast Imaging

Contrast-Enhanced Spectral Mammography is a technology that is designed to help your doctor spot breast cancer quickly and confidently. And it's almost as simple as a traditional mammogram.

CESM is accessible to women who might face barriers to other diagnostic tests

Cost

CESM may cost the same as a diagnostic mammogram, plus the cost of the contrast injection depending on the facility.

Scheduling

CESM is a quick test, available soon after an abnormal mammogram.

Physical constraints

CESM uses standard mammography equipment, so your exam experience will be very similar to what you're used to.

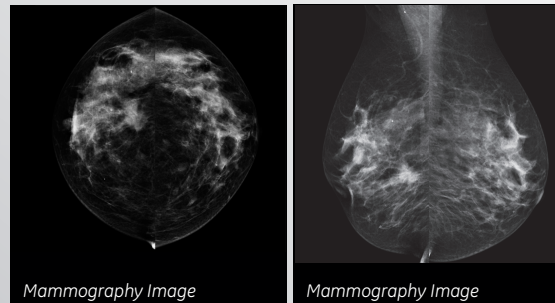
Preparing yourself is simple

As with a regular mammogram, you should avoid wearing deodorant, perfume, or lotion under your arms. And you may want to wear a separate top and bottoms, so that you only need to remove your top.

ROUTINE MAMMOGRAPHY

On a standard mammogram, the fatty tissue in your breast appears as black, while the dense tissue appears as white. Breast cancer appears also as a white spot, which can make a tumor difficult to identify when there's dense tissue in the picture.

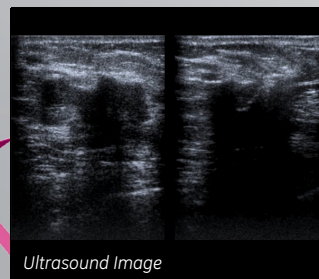
This difficulty can lead to inconclusive results and the doctor may prescribe an ultrasound exam for a closer look.



BREAST ULTRASOUND

A breast ultrasound is often used after abnormal mammogram results, to show whether a lump is a fluid-filled cyst or a solid mass.

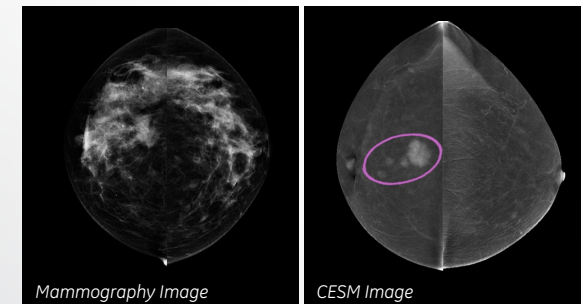
In an ultrasound image, fluid appears as black, while tissue appears as gray. The denser the tissue, the lighter gray it will appear. If the ultrasound shows a solid mass, further testing is needed to determine its cause.



CONTRAST-ENHANCED SPECTRAL MAMMOGRAPHY (CESM)

On a CESM image, dense breast tissue - the white areas - are hidden from view and suspicious areas are highlighted in white.

Because CESM images offer a similar view to standard mammography, they can be easily compared to the initial mammogram.



HOW DOES CESM WORK ?

The exam is very much like a standard mammogram. The main difference is that the exam begins with the injection of an iodine-based contrast agent, which makes any areas of increased blood supply more visible in the x-ray. Because cancer cells stimulate the development of new blood vessels, these areas may indicate that cancer is present.

Your radiologist can view the resulting images almost immediately, and make informed decisions quickly and confidently.

“With CESM, the level of detail compared to a regular mammogram gave me such easing of my worries. It makes a big, big difference to know what's happening and why.”

Liz S, breast cancer patient