

What are my Screening Options if I have Dense Breasts?



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Mammography uses x-rays to image the breast. It is recommended as the first line of screening. It has been studied for decades and has shown a 30% reduction in mortality. Mammography uses compression and involves radiation to penetrate through breast tissue. **As the density of a breast increases, the sensitivity of the mammogram to 'see' cancer decreases. Having dense breasts is the strongest predictor of cancer being missed by mammography.** Digital mammography performs better in dense breasts than analog mammography.

Tomosynthesis or 3D mammography is a newer form of x-ray and significantly reduces patient call-backs. Many facilities have replaced 2D with 3D mammogram as its primary screening. 3D increases detection of invasive cancers over traditional digital mammogram across all densities. However, it is still limited in detection of cancer in the dense breasts. Discuss with your health-care providers **your breast tissue composition and risk** and the addition of adjunct screening to your 3D mammogram.

Ultrasound uses sound waves to image the breast. It does not emit radiation and may generate false positives (suspicious lesions that are determined to be benign after a biopsy). Ultrasound is readily available. Studies for decades have shown **a significant increase in invasive cancers detected** on otherwise normal mammograms. In recent years, automated ultrasound has become available. Automated ultrasound seeks to improve operator dependency of hand-held systems.

Magnetic Resonance Imaging (MRI) uses magnetic field to track lesions where blood is concentrating in the breast. A contrast agent (gadolinium) is used. MRI is very sensitive in cancer detection but may generate more false positives. MRI is generally recommended for women with the highest cancer risk. **A quicker protocol for MRI called FAST or Quick MRI is being researched.** It reduces the test time between 4 and 8 minutes, lowering the cost of the test.

Molecular Breast Imaging (MBI) or Breast Specific Gamma Imaging (BSGI) is mostly used for diagnostic imaging. It uses a **radioactive contrast agent and is highly sensitive** in detecting cancer. It generates less false positives.

Contrast Enhanced Spectral Mammography (CESM) is a mammogram that is currently used after an inconclusive or abnormal mammogram. Iodine based contrast injection is used to show increased blood flow, which may **indicate the presence of cancer.**

***R*emember:** Breast Density Legislation does not replace educated conversations between patient and provider about personal screening surveillance. Discuss your breast tissue composition and other risks with your health care providers. Request a copy of your mammography reporting results that is written by the radiologist to your referring health-care provider about YOUR breast imaging results. This report most likely will not be **the same report** that you receive about your mammography results. In most instances, your breast tissue composition will be in this report. You are your best health advocate!