



Dense Breasts

Q&A GUIDE



NATIONAL
BREAST
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Dense Breasts Q&A Guide



INTRODUCTION

Dense breast tissue is a topic many women hear about but aren't sure exactly what it means or how it impacts their overall health.

Dense breast tissue can increase the risk of developing breast cancer and it can make lumps or other breast irregularities harder to detect. Therefore, it's important for women to know what dense breast tissue is and what to do if they have it. This guide explains the risk posed by dense breast tissue, what exactly having dense breast tissue means, and what women can do to support early detection if they have dense breast tissue.

This guide was created in collaboration with our partners at Parkland Hospital and UT Southwestern in Dallas, Texas. Special thanks to Aeisha Y. Taylor, BSRS, RT (R)(CT)(M), ARRT and Dr. Jennifer Schopp, Breast Imaging Radiologist, Assistant Professor of Radiology, UTSW and Parkland Hospital.

We hope this guide will help inform you and your medical team to make informed and empowered decisions for your healthcare and early detection needs.

Disclaimer: Always discuss any risk factors for breast cancer, including dense breast tissue, with your health care provider to determine the breast cancer screening schedule and method that is right for you.

Table of Contents

What are dense breasts?	4
How do women know if they have dense breasts?	4
How common are dense breasts?	6
What contributes to having dense breast tissue?	7
Do dense breasts feel different when performing a breast self-exam?	8
Does having dense breasts increase the likelihood of developing breast cancer?	8
Is additional screening needed if a patient has dense breasts?	9

What are dense breasts?

Every breast has a different mixture of breast tissue or variations of amounts of fatty and fibroglandular tissue. Broadly, breast tissue may be referred to as non-dense (more fatty) and dense (less fatty with more fibroglandular tissue). Dense breast tissue simply means there is more fibroglandular tissue, which appears white on a mammogram. When a patient has dense breasts, a mammogram will show that a greater amount of the breast is filled with dense breast tissue than fatty tissue.

How do women know if they have dense breasts?

Having a mammogram is the best way to find out if dense breast tissue is present. A radiologist (doctor who views mammograms) will analyze the ratio of fatty tissue to dense tissue and determine the level of breast density.

On a mammogram, fatty tissue appears dark, while dense breast tissue appears white. Dense breast tissue isn't transparent like fatty tissue, often making it difficult to see through.

Breast density levels are reported using the Breast Imaging Reporting and Data System (BI-RADS).

Density levels are often recorded in mammogram reports using letters (A-D):

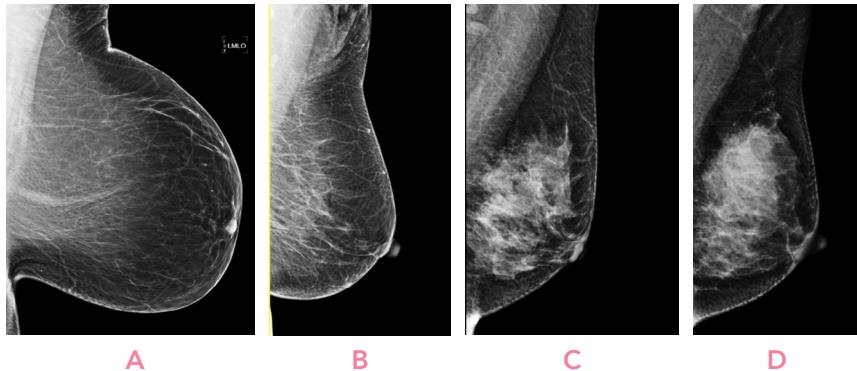
A: Almost entirely fatty indicates that the breasts are almost entirely composed of fat. Found in about 10% of women.

B: Scattered areas of fibroglandular density indicates there are some scattered areas of density, but the majority of the breast tissue is non-dense. Found in about 40% of women.

C: Heterogeneously dense indicates that there are some areas of non-dense tissue, but that the majority of the breast tissue is dense. Found in about 40% of women.

D: Extremely dense indicates that nearly all of the breast tissue is dense. Found in about 10% of women.

Typically, women with heterogeneously dense (C) and extremely dense (D) breast types are considered to have dense breasts.



DENSE BREAST LEGISLATION CHANGES:

In March of 2023, the FDA announced that mammogram reports sent to patients must include breast density, described as either “not dense” or “dense.”

If your breast tissue is **not dense**, the report will say, “Breast tissue can be either dense or not dense.”

Dense tissue makes it harder to find breast cancer on a mammogram and also raises the risk of developing breast cancer. Your breast tissue is not dense. Talk to your healthcare provider about breast density, risks for breast cancer, and your individual situation.”

If your breast tissue is **dense**, the report will say, “Breast tissue can be either dense or not dense. Dense tissue makes it harder to find breast cancer on a mammogram and also raises the risk of developing breast cancer. Your breast tissue is dense. In some people with dense tissue, other imaging tests in addition to a mammogram may help find cancers. Talk to your healthcare provider about breast density, risks for breast cancer, and your individual situation.”

Mammogram reports sent to healthcare providers must also include an overall assessment of breast density using the 4 BI-RADS categories. All mammography centers in the US must comply with this rule by September 10, 2024.

Tip: Be your own best advocate. Ask for copies of your reports and medical records to better understand your breast health.

How common are dense breasts?

According to the National Cancer Institute, nearly half of all women age 40 and older undergoing mammograms have dense breasts.

Breasts change over time due to hormones. Before having children or before menopause, a lot of women’s breasts are dense. After having kids or going through menopause, breasts change and tend to become more fatty. Women may even personally go through variations of breast density, from dense, to average, to fatty. For this reason, it’s important to be diligent throughout the

years asking about breast density. Information that was shared 10-20 years ago may not hold true.

Tip: Keep your breast health at the forefront as your body changes.

What contributes to having dense breast tissue?

Everyone has a different genetic makeup and disposition as to whether they'll have dense breasts or fatty breasts. Most people start with dense breast tissue and as they age or experience hormonal changes, the dense tissue turns to fatty tissue.

Other factors include:

- **Genetics.** Dense breast tissue has been shown to be genetic or influenced by genetic factors. Women should familiarize themselves with their family history to stay proactive with their health.
- **Low body mass index.** Undergoing weight loss can increase the amount of dense breast tissue with respect to amount of fatty tissue in a woman's breast. This is an area of ongoing research as well.
- **Hormonal therapy.** Outside factors, like hormonal therapy, can cause dense breast tissue to either remain or increase. Women on hormonal therapy should be especially diligent with their mammograms.

Tip: Share this guide with female family members to begin the discussion on breast health.

Do dense breasts feel different when performing a breast self-exam?

Only a mammogram can show if a woman has dense breasts. However, sometimes with dense breasts, the breast can feel lumpy, which can make it hard to find a mass. This is why it's recommended for women to perform breast self-awareness techniques in multiple different positions (in the shower, upright, and laying down) to properly assess any areas of concern. Any concern (specifically a discrete mass, lump, or area of firmness) should be brought to the attention of a physician, as imaging can provide insights on suspicious areas.

Tip: Familiarize yourself with breast self-awareness and breast self-exam by visiting nbcf.org/breast-self-exam.

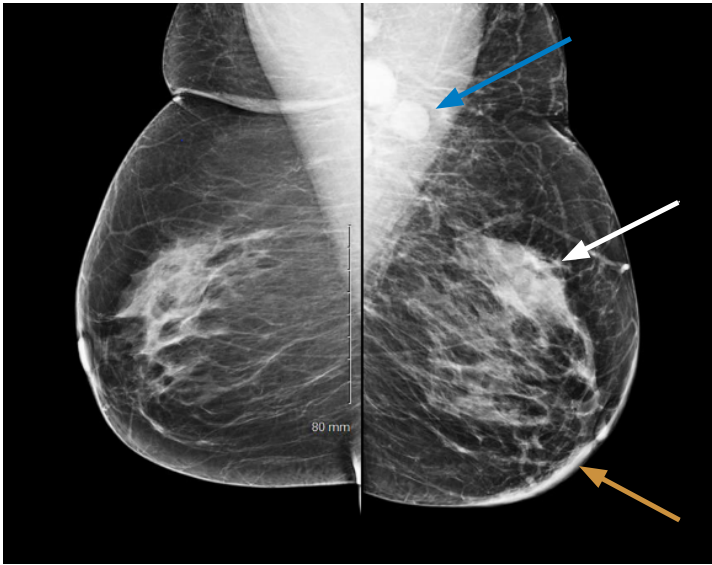
Does having dense breasts increase the likelihood of developing breast cancer?

Breast density affects the risk of breast cancer for women in two ways:

- Breast density can have a masking effect on detection of underlying cancer on a mammogram
- Breast density is an independent risk factor for breast cancer

Breast density refers to the relative amount of dense tissue (appearing white on a mammogram) compared with the amount of fatty elements (appearing dark) seen on a mammogram. As the white appearing areas on the mammogram increase, the dense breast tissue could mask the detection of breast cancer, as abnormal breast changes and cancer also appear white on a mammogram.

Below are 2 views from a mammogram, showing the right and left breasts. The white arrow in the breast shows a cancer, which is very subtle within the fibroglandular tissue. In this case, there are also prominent lymph nodes (blue arrow) and also skin thickening (gold arrow).



Breast density itself is also an independent risk factor for breast cancer. This means women with dense breasts have a higher risk of developing breast cancer than women without dense breasts, and the risk increases with increasing breast density.

Is additional screening needed if a patient has dense breasts?

Due to increased risk factors with dense breasts, there has been increased reporting of breast density to patients and clinicians. This has led to a need to evaluate when and how to best offer supplemental screening to women with dense breasts.

Remember: Despite concern of possible masking in women with dense breast tissue, mammography is recommended for all women of screening age, independent of breast density and breast cancer risk. Mammography alone has reduced the mortality (death rate) from breast cancer due to early detection of breast cancers, before there is chance of spreading or metastasis.

Women who have dense breasts and are only getting a mammogram, may not be getting the best screening for their circumstance. Supplemental imaging such as tomosynthesis (or 3D mammograms), ultrasounds, and MRIs can assist with cancer detection in the setting of dense breasts.

If a patient has dense breasts, she should review her breast cancer risk factors with her doctor and consider options for supplemental screenings.

Tip: Every patient and circumstance is different. Women with dense breasts should work closely with their doctor to determine the screening plan they're both comfortable with. Yearly screening mammograms are recommended for all women over 40 years of age.

SOURCES:

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