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ZAHRA ASSOCIATION

Beyond the Image
Campaign Guide



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The Relationship Between Breast Density and Breast Cancer

First: What Is Breast Density?

The breast is made up of different types of tissue, including:

- Dense tissue: This includes glands, milk ducts, and supportive fibrous tissue.
- Fatty tissue: This consists mainly of fat cells.

Breast density refers to the proportion of dense tissue compared with fatty tissue in the breast. When there is a relatively greater amount of dense tissue, the breasts are described as having high breast density.

Having dense breast tissue is common and normal. By itself, it does not mean that you have a disease or breast cancer.

Second: How Is Breast Density Determined?

Breast density cannot be determined by the appearance or size of the breasts or through breast self-examination. It is assessed using a mammogram (breast X-ray).

After a mammogram, a radiologist evaluates the amount of fatty tissue compared with the dense tissue visible on the images and assigns a breast density category. Computer software may also be used to assist in assessing breast density, with the results reviewed by a radiologist.

Breast Density Classification
One of the most widely used systems is the American College of Radiology (ACR) Breast Imaging Reporting and Data System (BI-RADS), which classifies breast density into four categories:

•Category A | Almost Entirely Fatty
The breasts are composed almost entirely of fatty tissue, with very little dense tissue.
•Category B | Scattered Areas of Fibroglandular Density
Most of the breast is composed of fatty tissue, with scattered areas of dense tissue.
•Category C | Heterogeneously Dense
There is a greater amount of dense tissue, which may obscure some small masses on a mammogram.
•Category D | Extremely Dense
Most of the breast tissue is dense, which may reduce the ability of mammography to detect some cancers.

Categories C and D are generally considered to represent dense breasts.

Third: Why Is It Important to Know My Breast Density?

Knowing your breast density is important for two main reasons:
1. It May Affect the Ability of Mammography to Detect Breast Cancer

•Dense breast tissue appears white on a mammogram, and some breast cancers may also appear white. This means that dense tissue can make some cancers, particularly small ones, more difficult to see.

- As a result, detecting breast cancer with mammography may be more challenging in women with dense breasts.

2. High Breast Density Is Associated With an Increased Risk of Breast Cancer

- High breast density is considered an independent risk factor for breast cancer.
- In general, women with dense breasts have a higher risk of developing breast cancer compared with women who have lower breast density.

What Do Studies Show?

One study involving 1,437 women found that approximately 40% of women with breast cancer had high breast density (Categories C and D), compared with approximately 30% of women without breast cancer.

Studies also indicate that the risk of breast cancer increases with increasing breast density. Some local studies have reported a notable increase in breast cancer risk among Saudi women with high breast density.

Important: Having high breast density does not mean that you will develop breast cancer. Rather, breast density is one of several factors considered when assessing your overall risk and determining the most appropriate screening plan.

Fourth: What Factors Are Associated With Breast Density?

Breast density varies from one woman to another and may change over time. Factors associated with breast density include:

•Age

Breast tissue tends to become less dense with age. However, this does not occur in all women, and dense breasts can occur at any age.

•Weight and Body Fat Percentage

Women with a lower percentage of body fat are more likely to have breasts with relatively less fatty tissue and greater density.

•Hormone Therapy for Menopausal Symptoms

Certain types of hormone therapy, particularly combined hormone therapy, may be associated with increased breast density.

Fifth: How Can I Find Out My Breast Density?

If you have had a mammogram, you can ask your doctor about your breast density.

The radiology report usually includes information about breast density and classifies it into one of four categories: A, B, C, or D.

If your result is Category C or D, this means you have dense breasts. This is a common and normal finding, but it is important information to consider when discussing your breast cancer screening plan with your doctor.

Sixth: What Should I Do If I Have Dense Breasts?

Having dense breasts does not automatically mean that you need additional screening tests, nor does it mean that you will develop breast cancer.

However, it is important to discuss your results with your doctor. Your doctor will consider your breast density alongside other risk factors, such as:

- Age.
- Family history of breast cancer.
- Genetic mutations or inherited predisposition.
- Personal history of breast disease or breast tumors.
- Previous radiation therapy to the chest area
- Other relevant risk factors.

Depending on your overall risk, your doctor may discuss additional imaging tests alongside mammography, such as:

•3D mammography (digital breast tomosynthesis).
•Breast ultrasound.
•Breast magnetic resonance imaging (MRI).

These tests may help detect some cancers that can be difficult to see on mammograms in women with dense breasts. However, the most appropriate screening method depends on each woman's individual risk profile.

Seventh: Screening Recommendations for Women With Dense Breasts

Breast cancer screening plans are not based on breast density alone. They also take into account age, overall risk level, family and genetic history, and other relevant factors.

Women Under 40 Years of Age

•If there is a family history of breast cancer:
Screening may be recommended at an earlier age depending on the individual's level of risk and the age at which the affected relative was diagnosed.
•If breast density is high or additional risk factors are present:
The doctor may discuss the use of breast MRI or other supplemental imaging methods based on an individual risk assessment.
•If there has been previous radiation therapy to the chest:

An earlier breast cancer screening program may be required depending on the timing of radiation exposure and the individual's level of risk.

Women Aged 40 Years and Older

•Breast cancer screening with mammography is recommended according to established guidelines and the individual's level of risk.

•If additional risk factors are present, such as a genetic predisposition, a strong family history, or high breast density, the doctor may recommend additional imaging methods, such as breast MRI.

European Recommendations for Extremely Dense Breasts

Some European recommendations suggest that periodic breast MRI may be considered for specific groups of women with extremely dense breasts. The timing and type of screening should be determined according to age, individual risk level, and clinical assessment.

The Key Message

•High breast density is not a disease, but it is important information about your breast health.

•Knowing your breast density can help you and your doctor better understand your risk factors and choose the most appropriate breast cancer screening plan for you.

•After your mammogram, ask your doctor: "What is my breast density, and do I need any additional screening tests?

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References:

- •Aloufi, Areej S et al. “Mammographic breast density and breast cancer risk in the Saudi population: a case-control study using visual and automated methods.” The British journal of radiology vol. 95,1134 (2022): 20211197. doi:10.1259/bjr.20211197
- •Mayo Clinic