

# ABUS: Automated Breast Ultrasound

## PATIENT GUIDE

### Your Information

Name: \_\_\_\_\_ Age: \_\_\_\_\_

Date of my most recent mammogram: \_\_\_\_\_

(Write n/a if you've never had a mammogram)

#### Reported breast density (if known):

☐ (A) Fatty    ☐ (B) Scattered    ☐ (C) Heterogeneously Dense    ☐ (D) Extremely Dense    ☐ Not Sure

#### Have I had callbacks or extra images because my mammogram was hard to read?

☐ No    ☐ Yes, how many times in the last 3 years? \_\_\_\_\_

#### First-degree relative with breast cancer?

☐ No    ☐ Yes

#### Known genetic mutation (e.g., BRCA1/2)?

☐ No    ☐ Yes    ☐ Unknown

#### Current symptoms or changes (lump, focal pain, nipple discharge, skin changes)

☐ None    ☐ Yes, please describe: \_\_\_\_\_

#### Implants or prior breast surgery?

☐ Implants    ☐ Reduction    ☐ Lumpectomy    ☐ None    ☐ Other: \_\_\_\_\_

### Questions to ask your doctor:

- What is my breast density, and how does it affect the accuracy of my mammogram?
- If I have dense breast tissue and/or prior callbacks, would supplemental screening with ABUS improve my chances of early detection?
- If I'm average risk but have dense breasts, is ABUS a better supplemental option for me than other tests (e.g., MRI), considering accuracy, comfort, and access?
- What is the experience and comfort level of an ABUS exam like?
- Can you include ABUS on my imaging order today and refer me to Envision Imaging?
- Is ABUS typically covered for patients with dense breasts under my plan? If not, can we note medical necessity and discuss self-pay options?



# What you need to know about Breast Density

**It's in the media, your mammography report mentions it, and now a U.S. federal regulation will require mammography facilities to notify you about your breast density.<sup>3</sup>**

Breast tissue consists of fatty and fibroglandular tissue. Dense breast tissue is defined as having a higher percentage of fibroglandular tissue within your breasts. If more than 50% of your breast is made of fibroglandular tissue, then your breasts are classified as "dense." The sensitivity of mammography is significantly diminished in women with dense breast tissue.<sup>4</sup> Additionally, women with dense breast tissue have a 4-6 times higher risk of developing breast cancer than women with minimal fibroglandular tissue in their breasts.<sup>5</sup>

## **Looking for a polar bear in a snowstorm?**

You may have heard the statement that looking for cancer in dense breast tissue is like looking for a polar bear in a snowstorm. This is a descriptive way of explaining why dense breast tissue can potentially mask breast cancers. On an x-ray mammogram, both dense breast tissue and cancers show up as white. Therefore, with mammography, a cancer can easily hide in a background of dense breast tissue since they both appear white. Alternatively, in fatty tissue, which is gray, a white mass (cancer) can be readily identified.

## **My breasts don't feel dense so I must not have dense breast tissue, right?**

Breast density cannot be determined by palpation or by the appearance of the breasts – it can only be determined by evaluating a mammogram. Your radiologist performs your breast density assessment at the time your mammogram is reviewed.

## **Isn't dense breast tissue only a problem for young women?**

Generally speaking, it is true that younger women usually have denser breast tissue and most women will have fatty replacement of dense glandular breast tissue as they age. However, that being said, 74% of women in their 40s, 57% of women in their 50s, 44% of women in their 60s, and 36% of women in their 70s have dense breast tissue.<sup>6</sup>

## **Is having dense breasts normal?**

Yes, having dense breast tissue is normal. It is a feature of your body. Over 40% of women (and 70% of Asian women) have dense breast tissue.<sup>1,2\*</sup>

## **How can I stop having dense breast tissue?**

Dense breast tissue is a physical attribute like other features of your body. It is not something that you can actively try to change or improve. The best thing to do is to become informed, know your personal risk factors, and participate in regular breast screening.

## **Does this mean that I no longer need a mammogram?**

Mammography is still the gold standard and is the only way to tell if you have dense breasts. Supplemental imaging is meant to complement mammography, not replace it. If your doctor recommends a breast ultrasound exam, it should not be performed in isolation.

## **What happens next if I have dense breasts?**

If you have dense breasts, the addition of automated breast ultrasound (ABUS) when used with mammography has been shown to improve breast cancer detection compared to mammography alone<sup>7,8</sup> and has the potential to avoid unnecessary biopsies.<sup>9</sup>

## **Ask your doctor if ABUS screening would benefit you.**

\*Shown in various studies conducted in the U.S., Europe, and New Zealand.

1. Pisano et al. NEJM 2005; 353: 1773.

2. Ellison-Loschman, et al, PLOS ONE July 2013.

3. <https://public-inspection.federalregister.gov/2023-04550.pdf>. Effective September 10, 2024.

4. Mandelson et al. Breast density as a predictor of mammographic detection: comparison of interval- and screen-detected cancers. J Natl Cancer Inst 2000; 92: 1081-1087.

5. Boyd NF et al. Mammographic Density and the Risk and Detection of Breast Cancer. NEJM 2007; 356: 227-36.

6. Checka CM, Chun JE, Schnabel FR, Lee J, Toth H. The relationship of mammographic density and age: implications for breast cancer screening. AJR Am J Roentgenol. 2012 Mar; 198 (3): W292-5.

7. FDA PMA P110006 summary of safety and effectiveness.

8. Brem RF, Tabár L, et al. Radiology. 2015 Mar; 274(3): 663-73.

9. Wenhui Ren, MPH, & Youlin Qiao, MD, PhD, Fanghui Zhao, MD, PhD et al. 2023 The Association of University Radiologists. Elsevier Inc <https://doi.org/10.1016/j.acra.2023.02.026>.

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