



## All breasts are not the same.

I've been told that I have dense breast tissue – what does that mean?

Breasts are made out of fat and breast tissue. Some women have more fat than breast tissue while others have more breast tissue than fat. When there is more breast tissue, the mammogram looks white and is considered dense. Since masses or lumps also appear white on a mammogram, a lump may be masked by the dense breast tissue. Dense breast tissue is also linked with an increase in the risk of developing breast cancer.

That being said, having dense breast tissue is NOT an abnormal condition. It is a part of you, like having green eyes or red hair and not something that you can readily change. Dense breast tissue is common, 40% of women have dense breast tissue. Since mammography has limited visibility in women with dense breast tissue, screening dense breasts with ultrasound, in addition to mammography, may improve the likelihood of detecting cancer.

You should discuss your personal risk factors including breast density with your physician.



# What you need to know about breast density

## It's in the media, your mammography report mentions it and now some states even have a law about it.

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>1</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>2</sup>

## Looking for a snowball in a snowstorm?

You may have heard the statement that looking for cancer in dense breast tissue is like looking for a snowball 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 on exam – it can only be determined by evaluating a mammogram. Your radiologist performs your breast density assessment at the time of your mammographic interpretation.

## 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>3</sup>

## Does this mean that something is wrong with me?

NO, having dense breast tissue is not an abnormal condition. It is a feature of your body. 46% of women in the United States have dense breast tissue.<sup>4</sup>

## How can I stop having dense breast tissue?

Dense breast tissue is just 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 be proactive, participate in your breast health and understand your risk factors.

## What about digital mammography? I've heard that it is better for dense breast tissue.

Digital mammography has been found to be more effective for pre and perimenopausal women with dense breast tissue. However, even digital mammography has significant limitations in dense breast tissue.<sup>4</sup>

## Yay! Does this mean that I'm done with mammography?

Mammography is still the gold standard. 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. However, a woman with dense breast tissue may not require ongoing supplemental imaging if her breast density changes and becomes more fatty.

1. 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

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

3. 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.

4. Pisano ED, Gastonis C, Hendrick E et al. Diagnostic Performance of Digital versus Film Mammography for Breast Cancer Screening. *NEJM* 2005; 353: 1773.

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