



Don't **BE** *dense,* *be* **DENSE AWARE**

Becoming aware of your breast density can be vital for you. Since having dense breasts can actually obscure a lump on a standard mammogram, checking the density percentage of your breasts will let you consider different and personalised screening options.

ONE SIZE DOESN'T FIT ALL!

It's up to each woman to be aware of their breast cancer risk and pursue a personalised screening strategy that is right for them - *in consultation with their doctor.*



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About Breast Density

What, Why, Who, How

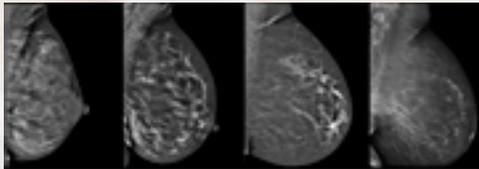
The answers to your most common questions in regards of breast cancer and the concept of breast density. Be dense aware in order to pursue personalised screening options in consultation with your doctor.

WHAT IS Breast Density

Breasts are made up of three types of tissue – **fatty**, **fibrous** and **glandular tissue**. Every woman is unique and has a different amount of these three types of tissue. A person with dense breasts (on a mammogram) has less fatty tissue and more glandular and fibrous tissue.¹

As you can see from the mammogram images below, some breasts are mostly made up of fatty tissue. Others are mostly made up of glandular and fibrous tissue, and these are known as dense breasts.

>75% density >50% density <25% density <50% density



FATTY BREAST TISSUE. SCATTERED DENSITY. HETEROGENEOUSLY DENSE. EXTREMELY DENSE.

WHO IS MORE LIKELY TO HAVE Dense Breasts AND CAN I CHANGE My Breast Density

Breast density is often greater in women who are younger.¹ Other factors that may increase the likelihood of having dense breasts include being pre-menopausal, use of certain drugs such as menopausal hormone therapy, being pregnant and as a result of genetics.¹

While some women's breasts become less dense with age, others experience little change.¹ In general, the best way to deal with the increased risk associated with having dense breasts is not to try to reduce your breast density, but to talk to your doctor about a breast cancer screening program that suits your individual needs.

WHY IS Breast Density Important

Women with dense breasts (on mammogram) have a four to five times increased risk of breast cancer compared with women with average breast density.^{4,5} It is currently unclear as to why this is, so more research is needed in this field.⁴

There is also an increased risk of breast cancer not being detected by a standard mammogram in women with dense breasts.^{6,8} As you can see in the image below, dense breast tissue appears whiter on a mammogram image. This makes it more difficult for radiologists to interpret and often results in the need for follow-up imaging.¹

<25% density



NOT DENSE BREAST.

>75% density



DENSE BREAST.

HOW DO I KNOW If I have Dense Breasts

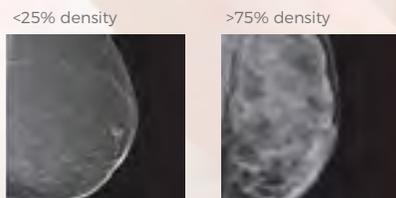
Breast density is seen only on mammograms.⁹

Dense breasts have a lot of fibrous or glandular tissue and less fatty tissue.⁹ Breast density is often included in the report from the radiologist following a mammogram so you can ask your doctor about your breast density.

WHY DOES HIGH BREAST DENSITY *Hide Cancer*

As you can see in the image below, dense breast tissue appears whiter on a mammogram image, making it more difficult for radiologists to interpret and often resulting in the need for follow-up imaging.⁹

Imagine dense breast tissue as clouds in the sky and breast cancers as white planes in flight. When a plane flies through wispy clouds, you can still see the plane in the air, but when a plane flies through thick clouds, it can be nearly impossible to visually detect.



NOT DENSE BREAST.

DENSE BREAST.

IS BREAST SIZE RELATED TO *Breast Density*

You may be surprised to learn that breast density isn't based on how your breasts feel e.g. the size or firmness.¹ In fact, **breast density is seen only on mammograms.**¹ **Breast density relates to the type of tissue present, not to the size or firmness.** Dense breasts have a lot of fibrous or glandular tissue and less fatty tissue.¹

While you can't tell whether your breasts are dense from looking at them or feeling them, it is still important for all women to know the normal look and feel of her breasts. If you notice any changes in your breasts, you should visit your GP.

HOW COMMON ARE *Dense Breasts*

We've all heard of high risk breast cancer gene mutations, such as BRCA1 and BRCA2, that occur in 5-10% of all breast cancers.² But did you know that **having dense breasts is a far more common risk factor for breast cancer?**³

While it is not known exactly how many women in Australia have dense breasts, international studies suggests that **dense breasts occur in more than half of women aged under 50 years, in around 40% of women in their fifties and in about 25% of women aged 60 and older.**³

So as you can see, breast density is very common and is not abnormal.¹

WHAT DOES IT MEAN FOR ME IN TERMS OF *Breast Cancer Screening* IF I HAVE DENSE BREASTS

Standard 2D mammograms may be less accurate in women with dense breasts.^{6,10} 3D mammography is a newer technology that helps to eliminate most detection challenges associated with standard 2D mammography in a diagnostic setting.^{6,10} 3D mammography has been shown to detect 41% more invasive breast cancers and reduce the need for unnecessary further testing by up to 40%.^{6,10} This means two simple things: **earlier detection than ever before and less anxiety about unnecessary further testing.**^{7,11}

3D mammography may be performed in conjunction with an Ultrasound and/or MRI exam.

Discuss with your doctor whether a 3D mammography exam, MRI or ultrasound might be right for you.

WHY ARE *Standard Mammograms Less Accurate* IN WOMEN WITH DENSE BREASTS

Standard 2D digital mammography is currently the most common screening method used in Australia. However, it does have some limitations.

Standard mammograms may be less accurate in women with dense breasts because dense breast tissue appears more opaque on a mammogram, making it harder for doctors to spot any abnormalities or cancers on the scan, as these also appear opaque on a mammogram.²

WHAT IS *Australia*

DOING IN REGARDS TO BREAST DENSITY

In the USA, 28 (56%) states have adopted a mandatory breast density notification requirement since 2005 and Federal legislation is pending.^{12,13}

However, **in Australia, there is currently no requirement for breast density to be provided on mammogram reports.**³ That means that it is up to you to ask that this information be included in your mammogram report. You and your doctor can then use this information to help plan a breast cancer screening approach that is most suited to your individual needs.

1. American Cancer Society. Available at: <https://www.cancer.org/cancer/breast-cancer/risk-and-prevention/breast-cancer-risk-factors-you-cannot-change.html>. Accessed June 2017. 2. Breast Cancer Network Australia. Available at: <https://www.bcna.org.au/about-us/advocacy/position-statements/family-history-and-hereditary-breast-cancer/>. Accessed September 2017. 3. BreastScreen SA. Breast density Information for consumers. Available at: http://www.sahealth.sa.gov.au/wps/wcm/connect/6e1a80804e78310ebd28fdc09343dd7f/Breast+Density+Consumer+Information-v3_FORMATTED.pdf?MOD=AJPERES&CACHEID=6e1a80804e78310ebd28fdc09343dd7f. Accessed September 2017. 4. Boyd NF et al. N Engl J Med 2007;356:227-36 5. Yaghjian L et al. J Natl Cancer Inst 2011;103:1179-89. 6. Skaane P et al. Radiology 2013;267:47-56. 7. Rose S et al. AJR Am J Roentgenol 2013;200:1401-8. 8. Ciatto S et al. Lancet Oncol 2013;14:583-9. 9. American Cancer Society. Available at: <https://www.cancer.org/cancer/breast-cancer/screening-tests-and-early-detection/mammograms/breast-density-and-your-mammogram-report.html>. Accessed June 2017. 10. Friedewald S et al. JAMA 2014;311:2499-507. 11. Australian Institute of Health and Welfare 2013. BreastScreen Australia monitoring report 2010- 2011. Cancer series no. 77. Cat. no. CAN 74. Canberra: AIHW. 12. American College of Radiology. Available at: <https://www.acr.org/Advocacy/eNews/20170217-Issue/20170217-State-Breast-Density-Reporting-Laws-Proliferate>. Accessed September 2017. 13. Freer PE. Radiographics 2015;35:302-15.