



Position Statement

Position Statement on Breast Density

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Approved by: Faculty of Clinical Radiology Council
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1. INTRODUCTION

1.1 Purpose

This position statement has been developed to give guidance to The Royal Australian and New Zealand College of Radiologists® (ABN 37 000 029 863) (the College), Fellows, Members and other individuals on breast density.

1.2 Scope

This position statement has been developed in conjunction with the RANZCR Breast Imaging Reference Group.

1.3 RANZCR Mission

The mission of The Royal Australian and New Zealand College of Radiologists is to drive the appropriate, proper and safe use of radiological and radiation oncological medical services for optimum health outcomes by leading, training and sustaining our professionals.

2. DEFINITIONS

In this Position Statement on Breast Density:

BIRG means the Breast Imaging Reference Group

RANZCR means The Royal Australian and New Zealand College of Radiologists.

3. POSITION STATEMENT

Increased breast density, along with other factors like age and family history, is associated with increased risk of developing breast cancer. Increased breast density also reduces the ability of cancer to be detected by mammography. However, having two-yearly screening mammograms is currently the most effective way to detect breast cancer early in asymptomatic women above 50 years of age, regardless of their breast density. It is also important for women of all ages to be aware of the normal look and feel of their breasts because breast cancer can develop at any time and personalised diagnostic pathways are available for women with symptoms or concerns about their risk factors.

The Royal Australian and New Zealand College of Radiologists supports awareness of medical risks by medical and consumer groups and is strongly supportive of the growth and stimulation of research and advances in technology that result in improved cancer detection rates and improved morbidity and mortality rates in association with screening for breast cancer.

These are some examples of questions your patients may raise with their health professional and suggestions for discussion:

3.1 What does high breast density mean?

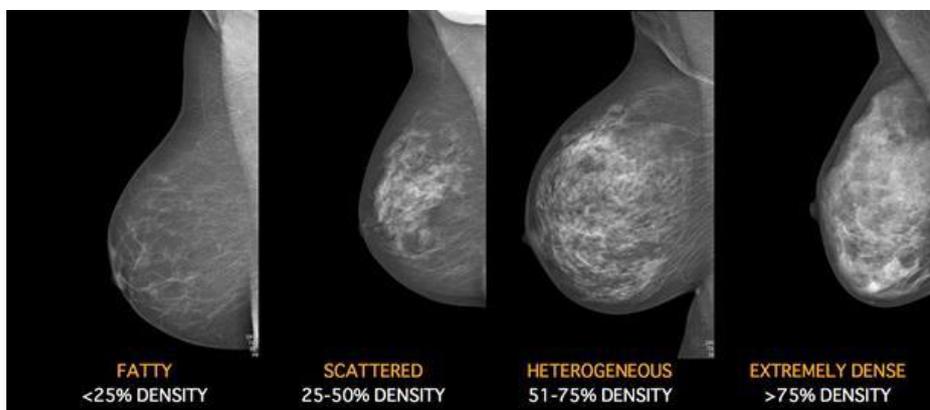
Composition of breast tissue: Breasts are made up of a combination of fibrous tissue, glandular tissue and fatty tissue. The appearance of breast tissue on a mammogram depends upon the mixture of components of breast tissue. Dense breasts have more fibrous and glandular tissue, whereas less dense breasts have more fatty tissue.

On a mammogram, fatty tissue appears dark grey/black and fibrous/glandular tissue appears light grey/white. It is this light grey/white appearance that is classified as high breast density. Dense breasts contain more glandular tissue and fibrous tissue, and the mammogram appears white.

3.2 How is breast density measured?

Currently there is no reliable method that measures breast density in a consistent manner. Breast density can be assessed on a mammogram by a clinical radiologist. There are generally four categories of breast density.

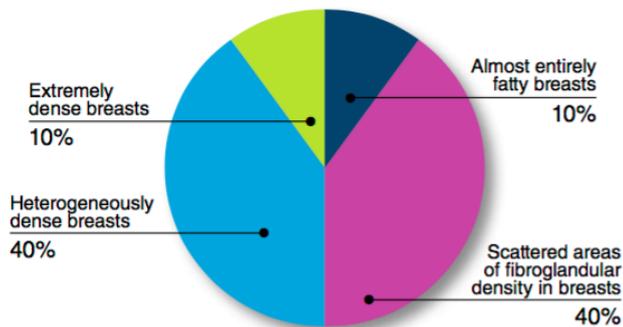
	Levels	Amount of glandular (dense) tissue
Least dense ↓ Most dense	1	less than 25%
	2	25-50%
	3	51-75%
	4	more than 75%



3.3 How common are dense breasts?

There are no statistics on the number of women in Australia with dense breasts because this information is not currently recorded. However, research suggests that:

- More than half of women under the age of 50 have dense breasts, and it is normal for young women to have dense breasts
- About 40 percent of women in their 50s have dense breasts
- About 25 percent of women age 60 and older have dense breasts



Breasts tend to become less dense as women get older, especially after menopause, as the glandular tissue involutes and is replaced by fatty tissue. A range of other factors also contribute to breast density such as hormones, body mass index (BMI) and genetics.

3.4 What are the risks for women with high breast density?

Research has shown that increased breast density is associated with increased risk of developing breast cancer. Breast density also impacts upon screening mammography, as cancers may be obscured/ masked by surrounding “dense” breast tissue and this can lead to a lower accuracy or ‘sensitivity’ for cancer detection.

The risk of developing breast cancer is also influenced by a range of other factors such as growing older, having a strong family history, being overweight, drinking alcohol and other lifestyle and environmental factors.

Age is the biggest risk factor for developing breast cancer, with most breast cancers occurring in women over 50. Importantly, most women who develop breast cancer have no known risk factors other than being female and getting older.

3.5 What is the current recommendation for women with high breast density?

Having two-yearly screening mammograms is currently the most effective way to detect breast cancer early in asymptomatic women, regardless of their breast density.

It is also important for women to be aware of the normal look and feel of their breasts because breast cancer can develop at any time.

Mammography is performed as a population based screening program at BreastScreen Australia and in the screening and diagnostic setting across the private practices and within public and private hospitals nationally.

Mammography has been the central tenet to the success of our national screening program at BreastScreen Australia, where the benefits of early breast cancer detection are maximised, and

the potential harms to women are minimised. The BreastScreen Australia program has been found to reduce breast cancer mortality by around 21-28% for women 50-69 years of age.

In response to research and statistics, which indicated a benefit in mortality reduction, the target age group for population screening at BreastScreen Australia, was modified in 2013, to include women between the ages of 50-74 years of age (previously 50-69 years of age).

At this time, mammography providers, including BreastScreen Australia, do not routinely provide women with information about breast density, nor routinely carry out supplemental screening using other technologies for women with dense breasts.

There are currently no randomised controlled trial data that show supplemental screening using technologies such as ultrasound, Magnetic Resonance Imaging (MRI) or tomosynthesis (3D mammography) saves lives. Mammography continues to be the only proven population based screening tool that is effective in reducing mortality from breast cancer for women, including those with dense breasts. There is also no consensus that breast density confers sufficient risk to warrant supplemental screening. The potential harms associated with supplemental screening include unnecessary and invasive tests, additional false positive examinations, a higher rate of benign breast biopsies, associated psychological distress and financial costs to both the woman and the health system. While there is some evidence that these technologies may detect malignancies not found with mammography, the benefit of any additional cancer detection within a population based screening program has not been shown to outweigh the harms.

For women with dense breasts, receipt of breast density information may create undue anxiety about their risk and worry that mammography may have missed a breast cancer. For women with fatty breasts, it may convey a false sense of security.

3.6 What does this mean for my patients?

BreastScreen Australia, with input from groups such as the BIRG, constantly review evidence to ensure that the delivery of mammography is safe, of high quality and is evidence based. However, until there is more robust, scientific evidence available, regular two-yearly mammography is recommended for women over the age of 50 years, and is currently considered the most effective screening test for women, regardless of breast density.

4. ACKNOWLEDGEMENT

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5. REFERENCES

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