

Breast Density and Personalized Screening



Breast cancer is the most common type of cancer in women worldwide, according to the WHO.¹

Treatment can be highly effective, especially when the disease is identified early. Improvements in survival began in the 1980s in countries with early detection programmes combined with different modes of treatment.¹

Regular screening can have a beneficial impact on clinical outcome. Women who are screened with a mammogram every 1-2 years can reduce their mortality risk.²

Breast cancer impacts

2.3
million
women each
year¹ globally



Medical Imaging Options for Breast Cancer Detection:



Ultrasound:

uses sound waves to generate a grey scale picture of the breast tissue



X-ray mammography:

typically takes pictures of both breasts from two angles



Digital breast tomosynthesis:

creates a 3D image of the breast, using multiple X-ray images from different angles



Contrast-enhanced magnetic resonance imaging (MRI):

uses radio waves and strong magnets to take images of the breast tissue



Contrast-enhanced mammography:

uses iodinated contrast medium to improve visualization of breast lesions

Breast Density and Breast Cancer Risk



Breast density impacts both **breast cancer risk...**



...and the **accuracy** of a breast cancer screening test.

Breast density impacts both breast cancer risk and the accuracy of a breast cancer screening test.³ Dense breasts are composed of a relatively high amount of fibro-glandular tissue and a relatively low amount of fatty tissue.

The ability of X-ray mammography to detect breast cancer is decreased in women with dense breasts, which means cancer is more often missed or found later in advanced stages in women with dense breasts.⁴

In addition, women who have dense breasts have an increased risk of developing breast cancer when compared with women with fatty breasts.⁵

Breast MRI may reveal additional breast cancers which are missed by standard mammography, especially in women with high breast density. Breast MRI can be perceived as a long and complicated procedure, but recent studies provided evidence that a three-minute protocol might be sufficient and its sensitivity is approximately 2 to 3 times higher than that of X-ray mammography.⁶⁻⁸

See the Possible. Create the Future.

> BAYER IN RADIOLOGY

COR-PF-RAD-AT-0024-1_02-2025

Causes of Breast Density⁹⁻¹¹

Certain Factors Can Affect a Woman's Breast Density, Including:

Age	BMI	Hormones	Genes
Breast tissue tends to less density after menopause.	Women with less body fat are more likely to have higher breast density.	Women who take combination hormone therapy for menopause are more likely to have dense breasts.	Breast density is also influenced by heredity.

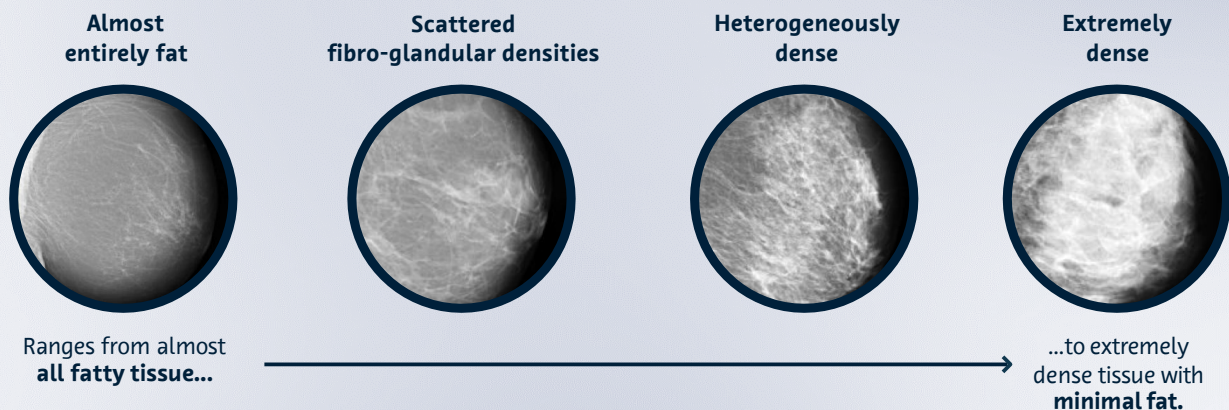
Breast Density Measurement

Breast density cannot be determined by either sight or clinical examination and is usually determined by X-ray mammography.^{12,13}

Radiologists classify breast density using the Breast Imaging Reporting and Data System (BI-RADS), which includes 4 categories, ranging from almost all fatty tissue to extremely dense tissue with minimal fat.¹⁴

Breast Density

is an important risk factor for HCPs to consider when deciding whether a patient should have additional screening examinations.



For an overview of breast dense cancer and screening options, please visit:
www.letstalkaboutit.bayer.com

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