

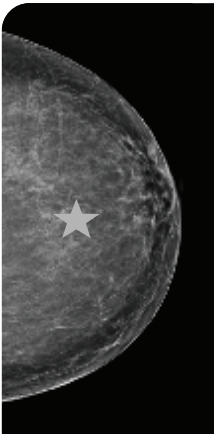
Breast Density

What it means and when to consider supplementary imaging



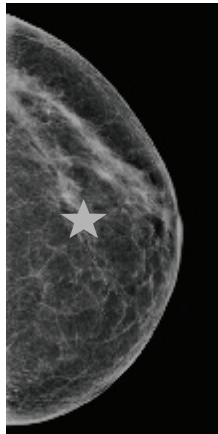
Breast density refers to the relative amount of glandular and connective tissue compared to fat, as seen on a mammogram. Dense breast tissue (BI-RADS Category C and D) appears white on mammogram, similar to malignancies, making early detection of breast cancer more challenging.

Density categories



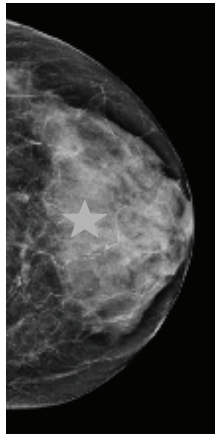
GRADE A

Almost entirely fatty breast tissue



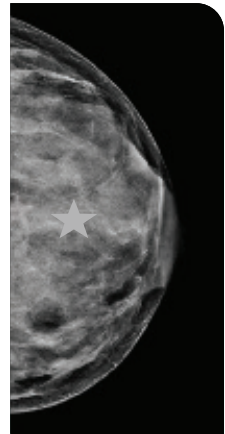
GRADE B

Scattered fibro glandular density



GRADE C

Heterogeneously dense, which may obscure small masses



GRADE D

Extremely dense, which lowers the sensitivity of mammography

*The star in the images represents how cancer may be hidden on a mammogram. (Image: Breast Density Explained – Volpara Health).

Clinical implications of breast density

- **Reduced diagnostic sensitivity:**
Mammographic sensitivity is reduced in dense breasts, particularly in Category C and D.
- **Increased cancer risk:**
Women with dense breasts have a higher risk (1.2–4×) of developing breast cancer compared to women with less dense tissue.

Breast screening recommendations based on breast density

3D tomosynthesis mammography is the preferred screening method for women with Category C and D density. It helps detect small invasive cancers more effectively and reduces unnecessary follow-up from false positives. Women with Category A or B density may choose to have 2D mammography or 3D tomosynthesis.

BI-RADS Category A and B:	2D mammogram or 3D tomosynthesis.
BI-RADS Category C:	3D tomosynthesis. If the patient has extra risk factors (such as family history or personal history of breast cancer), consider adding: <ul style="list-style-type: none">• Breast MRI every two-four years OR• Contrast enhanced mammogram (where available) every second year, alternating with 3D tomosynthesis. In the year CEM is performed, 3D tomosynthesis is not required that year.
BI-RADS Category D:	3D tomosynthesis and in addition: <ul style="list-style-type: none">• Breast MRI every two-four years OR• Contrast enhanced mammogram (where available) every second year alternating with 3D tomosynthesis. In the year CEM is performed, 3D tomosynthesis is not required that year.

Risk assessment:

Breast density should be evaluated in conjunction with other risk factors such as:

- Family history and genetics (e.g. BRCA mutations)
- Menstrual and reproductive history
- BMI and lifestyle factors (e.g. alcohol intake, smoking)

A comprehensive risk assessment helps guide decisions around the need for supplementary screening and frequency.