

When Should Screening Mammograms Begin?

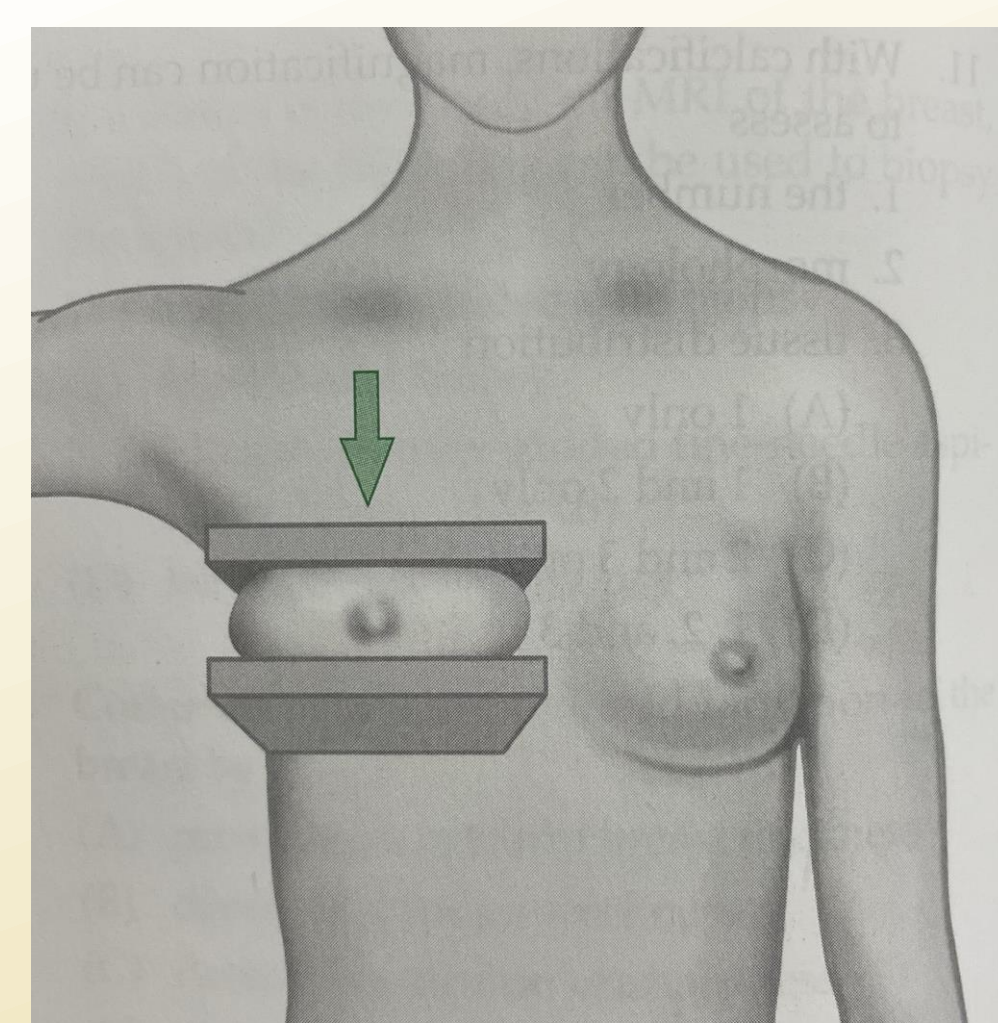
Student Researcher: Michaela Cragle
Faculty: Lynn Blazaskie M.S., R.T. (R) (ARRT)

Introduction

Screening mammograms are recommended for women to detect changes in breast tissue. There is some controversy as to when baseline screening mammograms should begin. "The American Cancer Society recommends that women receive a mammogram once a year after age 40" (ASRT, 2020). Having regular mammograms increases the chance of detecting early stages of breast cancer (Ehresman & Oberleitner, 2018).

Mammography

- Mammography is an imaging study of the breast using x-rays (Ehresman, Oldle, & Shratter, 2020).
- The two basic positions used are craniocaudal (CC) and mediolateral oblique (MLO).
- For the CC view, the machine is raised to place one breast at the same level as the detector.
- The breast is centered with the nipple in profile and the patient's head turned opposite.
- Shoulders back, while the breast is pulled forward.
- The technologist holds the breast in place and compression begins with the foot pedal.
- Compression is done until the lateral aspect of the breast is taut.
- The second position of each breast is the MLO.
- For the MLO, the patient is positioned with their side toward the mammography unit.
- The unit is angled between 30-60 degrees to align parallel with the pectoral muscle.
- The height of the machine is level with the axilla.
- The breast is lifted forward and upward while compression is applied until the breast is held in place (Olive, 2022).



Positioning for CC view. (Olive, 2022).



Positioning for MLO view. (Long, Rollins, Smith, 2019).

Risk Factors

- Risk factors include anything that increase a person's chance of developing breast cancer.
- Major risk factors that cannot be controlled include: gender, age, personal history of breast or other forms of cancer, family history or breast cancer, genetic risk factors, race, and abnormal breast biopsy (Olive, 2022).
- Other risk factors for developing breast cancer include starting menstruation earlier than 12 years, and reaching menopause after 55. The greater the number of menstruation cycles in a woman's life will increase breast cancer risk.
- Pregnancy is considered to have a protective effect against breast cancer because women do not menstruate during pregnancy. The longer a woman goes without getting pregnant, the chances of breast cancer increase. Also, women who have had their first full-term pregnancy after the age of 30, or women who have never had a full-term pregnancy are at increased risk.
- If a woman has received radiation therapy to the breast before the age of 30 is another risk factor.
- Obesity increases breast cancer risk because of increased adipose tissue which allows for more estrogen to be produced because of the conversion of androstenedione to estrone (Olive, 2022).
- Factors that influence the reproductive hormones in a woman's body increase breast cancer development.
- Breast density influences breast cancer. Women with dense glandular breast tissue have higher risks of breast cancer developing because their cancer could be missed. (Olive, 2022).

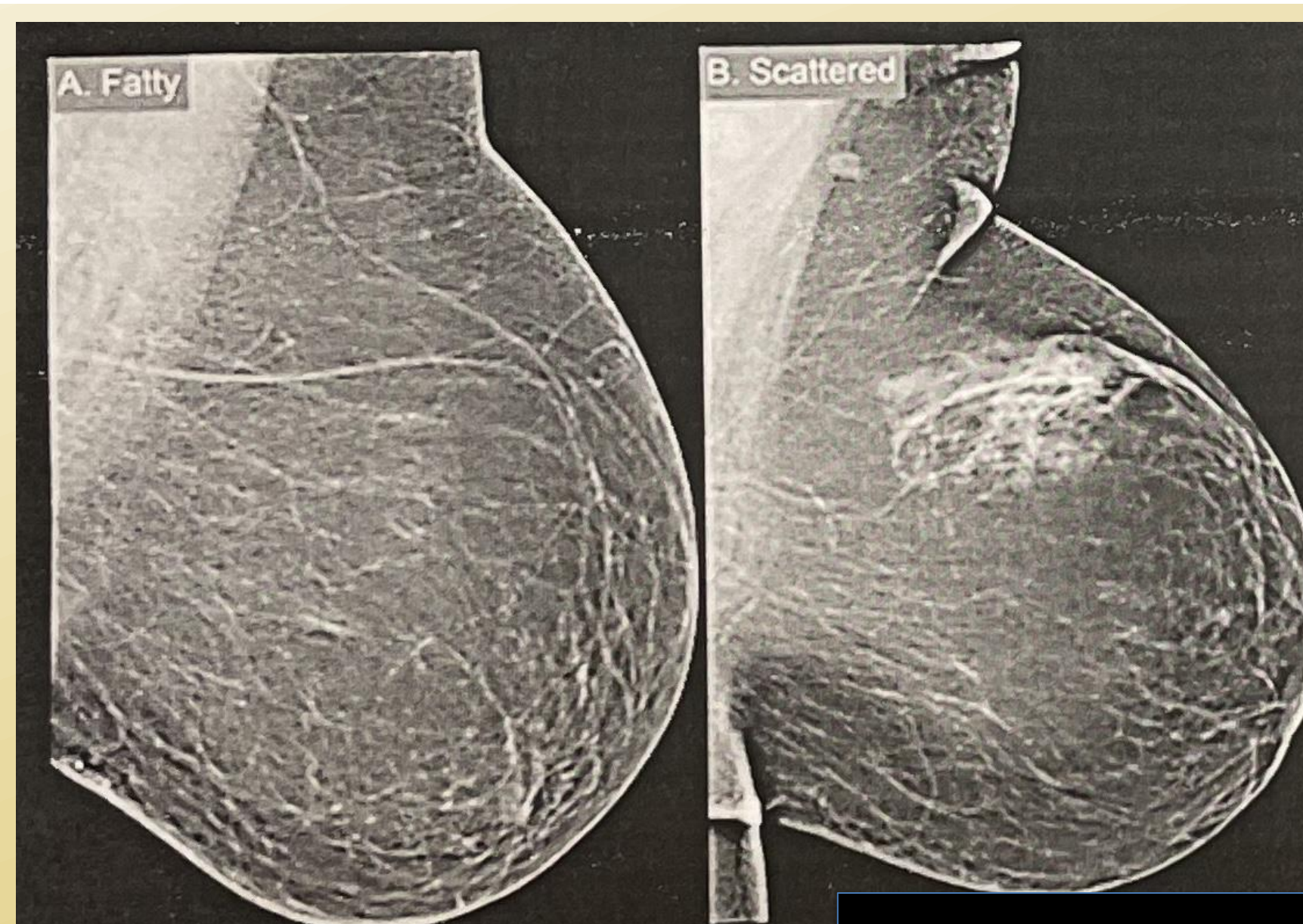


Image A shows fatty breast tissue. Image B shows scattered breast density. (Dense Breast-Info.org, 2015-2022).

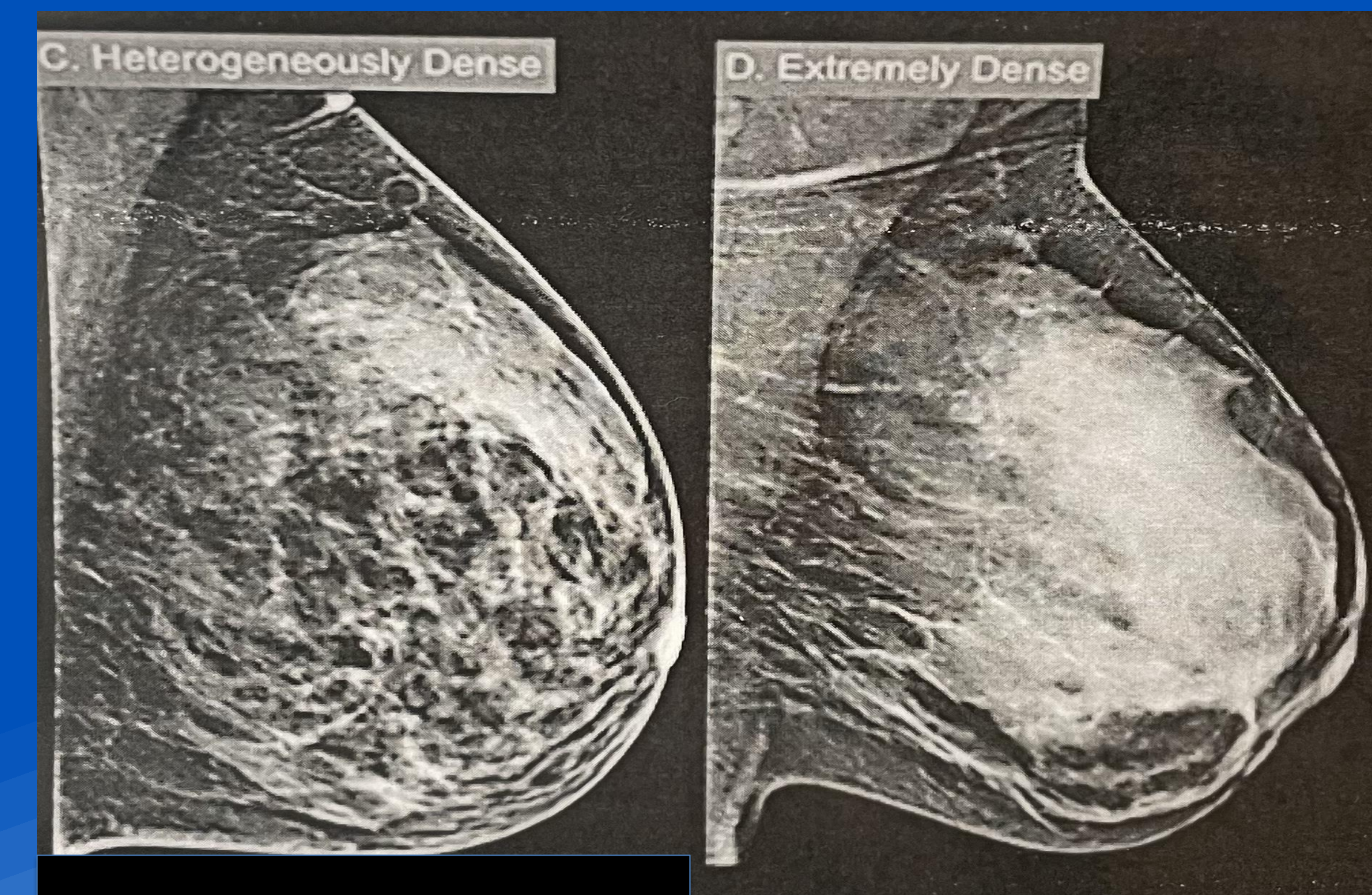


Image C shows heterogeneously dense breast. Image D shows extremely dense breast. (Dense Breast-Info.org, 2015-2022).

Controversy

- The American Cancer Society (ACS) recommends that women aged 40-44 should discuss annual screening along with clinical breast examinations with healthcare providers.
- The ACS says women 45-54 should have a mammogram once a year. Women 55 and older should receive a mammogram every 1 or 2 years.
- The American College of Radiology recommends screening annually begins at age 40 for average risk women. Earlier screening is recommended for high risk and minority women. Annual screening should continue for as long as the woman is able with no cap on age limit. (Olive, 2022).
- Controversy in mammography revolves around the concern that screening mammograms cause more harm (in terms of recalls, over-treatment, unnecessary biopsies, patient anxiety) than good in younger age groups <50 (Sutton, Reilly, Johnson & Garreau, 2018).
- Women who are <50 years of age tend to be diagnosed with more aggressive forms of breast cancer and have a worse outcome. The effectiveness of screening mammograms in women with dense breast tissue below the age of 50 is of concern. Asymmetries could be missed due to the density of their breasts.

Age Distribution: Breast Cancer Under 50

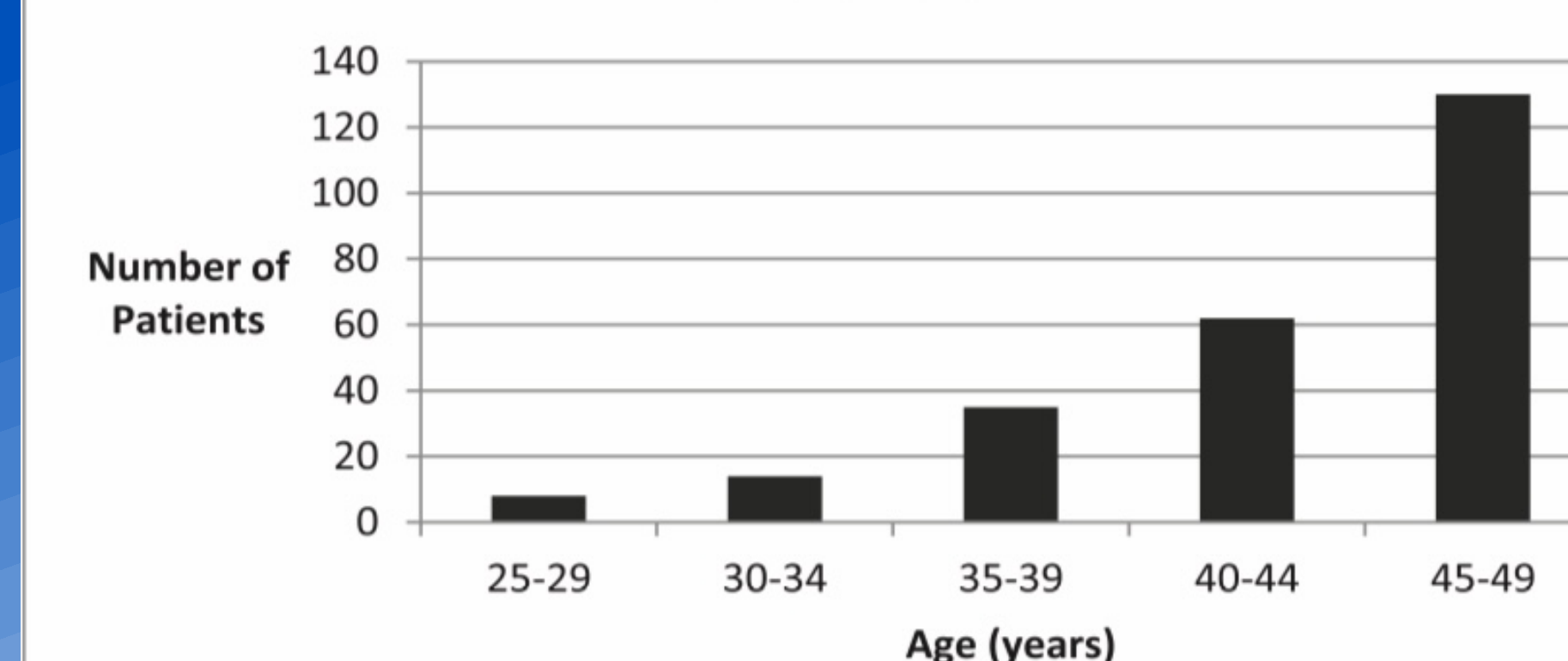


Chart shows the number and age category of patients diagnosed with breast cancer. (Sutton et al., 2018).

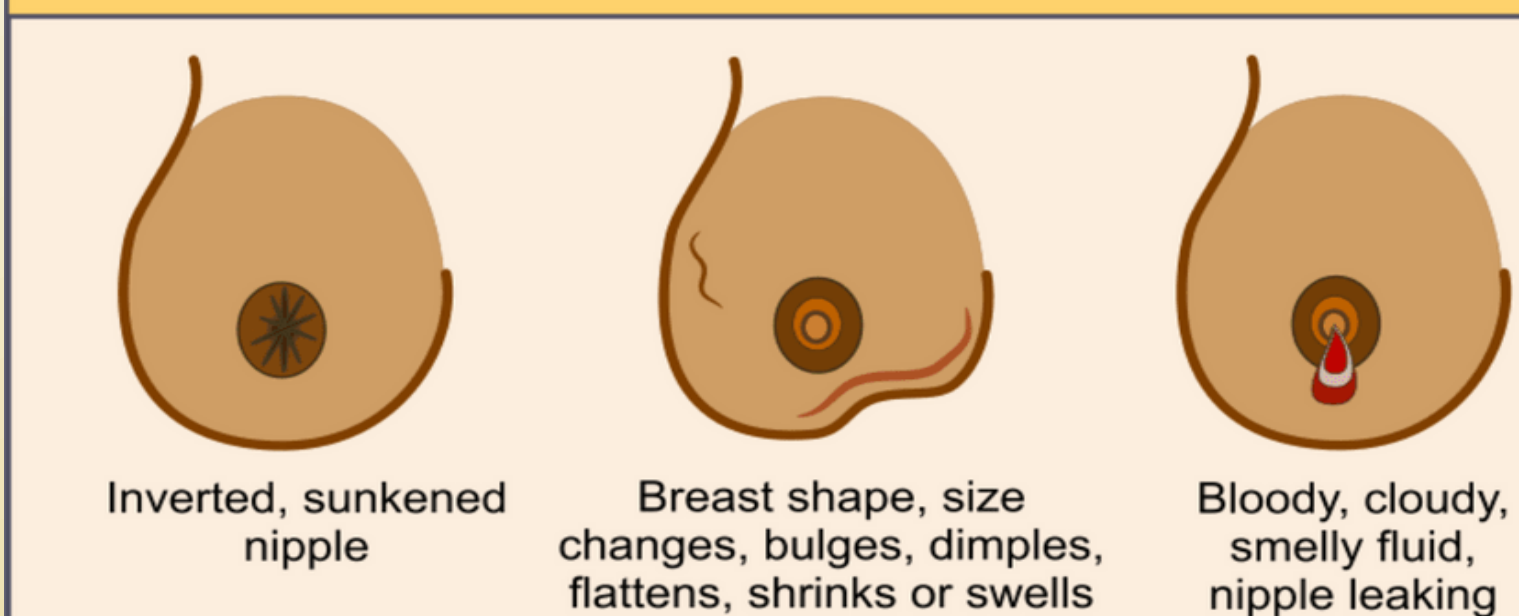
Signs and symptoms of breast cancer:

Breast Changes and Breast Cancer Warning Signs that need Medical Attention!

Do not ignore these symptoms or delay seeing a medical professional. A needle biopsy and mammogram can help rule out possible cancer.



Early Detection = Early Treatment



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(Hhabesha Health, n.d.)

Conclusion

Women are already at a higher risk for developing breast cancer simply because of gender. Although women under the age of 50 are not considered high risk, controversy regarding screening mammograms is evident based on this research. Mammography should continue to be a subject of discussion between providers and patients. Studies have shown that the best prevention for breast cancer is early detection. Early detection has been significant with the improvement of tomosynthesis in the mammography modality. Hopefully with improving technology the amount of recalls and biopsies done will slowly decrease.