

BREAST FREQUENTLY ASKED SCREENING: QUESTIONS

Advanced Medical Imaging Consultants, PC is dedicated to helping our providers and patients better understand all the information available about breast screenings. We've created a document to help answer some frequently asked questions we often get about breast screenings. Our hope is to provide explicit recommendations to help others sift through the ever growing pool of information. We hope you find this useful and informative!



Deborah Z. Gunderson, M.D.

When should I start getting mammograms and how often should I get them?

Although various medical organizations disagree on when to begin screening mammography and at what intervals, all agree that screening mammography is beneficial, and that women who have screening mammograms die of breast cancer less frequently than those that do not have mammograms. **Current screening data shows that yearly screening beginning at age 40 saves 71% more lives than screening every two years and beginning at age 50**, as recommended by the United States Preventive Services Task Force (USPSTF) in 2009.

Younger women of screening age are more likely to develop aggressive breast cancer than older women. This added risk reinforces why women should start screening at age 40.
(New England Journal of Medicine, 6/2017).

The following organizations recommend annual mammography screening beginning at age 40 for average risk women:

- American College of Radiology (ACR)
- American Congress of Obstetricians and Gynecologists (ACOG)
- National Cancer Consortium Network (NCCN)
- Society of Breast Imaging (SBI)

The following organizations recommend the decision to start screening should be an individual one. Women who place a higher value on the potential benefit and the potential harms may choose to begin screening at the following ages:

- American Academy of Family Physicians (AAFP)
ages 40-49, then every other year at and after age 50.
- United States Preventive Services Task Force (USPSTF)
ages 40-49, then every other year at and after age 50.
- American Cancer Society (ACS)
ages 40-44, then yearly from age 45-54, then every other year after age 55.
- American College of Surgeons
ages 40-44, then yearly from age 45-54, then every other year after age 55.



Should I do breast self-examinations?

Terminology for self-exam is evolving, and may now be referred to as "breast awareness". A minority of breast cancers continue to be detected as a palpable lump rather than by mammography. Breast cancers may also present with breast changes of skin redness, pain, itching, or a bloody or clear nipple discharge. The USPSTF and AAFP recommend that providers should not teach breast self exam. In contrast, the ACS and NCCN encourage breast awareness, stating that women should be familiar with how their breasts normally look and feel, and report any changes to a health care provider right away. ACOG and NCCN recommend an annual clinical breast exam after age 40, and NCCN recommends a clinical breast exam from 25-39 years of age every 1-3 years.

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What are the risk factors for breast cancer?

Please refer to <https://www.cancer.org/cancer/breast-cancer/risk-and-prevention/> for more details on the following:

Risks that you cannot change

- Being a woman
- Getting older
- Certain inherited genes
- Family history
- Having a personal history of breast cancer
- Race and ethnicity – Overall, white women are slightly more likely to develop breast cancer than African-American women
- Having dense breast tissue
- Certain benign breast conditions: Atypical ductal hyperplasia, single papilloma, lobular carcinoma in situ, atypical lobular hyperplasia, and others
- Menopause after age 55
- Starting menstruation prior to age 12
- Radiation therapy to your chest
- Exposure to diethylstilbesterol (DES) during pregnancy

Lifestyle Choices

- More than one alcoholic drink/day
- Not being physically active – less than 150 minutes of moderate intensity activity/week or less than 75 minutes of vigorous activity/week
- Pregnancy – the effect of pregnancy seems to be different for different types of breast cancer. Triple-negative breast cancers increase risk with pregnancy. Those who have not been pregnant or have had their first child after age 30 have slightly increased risk for breast cancer
- Breast implants – B cell lymphoma increased risk
- Hormone therapy - please refer to the **cancer.org** website for a detailed discussion



What is the BRCA gene and how do I know if I have this gene?

About 5-10% of breast cancers are hereditary, meaning that they are passed on from a parent with a gene defect. The most common hereditary breast cancer is the mutation in the BRCA1 or BRCA2 gene. **A woman with the BRCA1 or BRCA2 gene mutation has about a 7 in 10 chance of getting breast cancer by age 80.** There are other gene mutations that can lead to inherited breast cancer. Genetic testing may be indicated for patients with an appropriate family history of cancer, but consultation with a genetics counselor or health provider is recommended first to weigh the pros and cons.

Uncertain Increased risk

- Amount of fat in diet
- Use of vitamins
- Compounds in the environment that have estrogen-like properties
- Smoking or exposure to second-hand smoke
- Night shift work



Does radiation exposure from annual mammograms increase my risk of thyroid cancer? Should I request a thyroid shield?

The amount of radiation women receive from annual mammograms does not increase their likelihood of developing thyroid cancer (ACR and SBI). A thyroid shield is unnecessary.

Disproven or controversial for increased risk

- Antiperspirant use
- Bras
- Induced abortions or miscarriages

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? If I am high risk for breast cancer, does that change the recommendations for breast cancer screenings?

To receive a free online estimate of your breast cancer lifetime risk, go to: bcrisktool.cancer.gov, or discuss other methods for determining your lifetime risk number with your health care provider. **If you have a greater than 20% lifetime risk for breast cancer then the American Cancer Society recommends that you have an annual screening MRI in addition to a screening mammogram.** Yearly mammograms and breast MRI begin earlier than 40 years of age in some patients who are at high risk for breast cancer. All high risk patients should consider counseling in a breast cancer high risk clinic to define the appropriate breast cancer screening algorithm.

? What is 3D breast tomosynthesis and how is it different than 2D?

Breast tomosynthesis creates not just one image of the breast (2D mammogram), but also a stack of thin image “slices” of the breast (3D mammogram). The breast is evaluated by the radiologist using both 2D and thin slice-by-slice (3D). **The 3D imaging minimizes the masking effect of overlying tissue and this improves cancer detection.** The reduced masking effect also helps the radiologist reduce the number of patient call-backs to the breast center for evaluation of overlapping breast tissue.

? What is breast MRI and can it replace my mammography screening?

MRI images the breast in a completely different way than mammography. It does not use x-rays, but magnetism and radio frequency waves to generate detailed images of the breast. **A breast MRI is useful as a problem-solving imaging tool and for supplemental screening of patients at high risk for breast cancer, but not as a replacement for screening mammography.** MRI is very sensitive for the detection of breast cancer masses, but it also identifies findings that look like cancer, but are not. This may lead to unnecessary additional breast imaging and biopsies. Breast MRI is a more time consuming and costly breast imaging method than mammography. Breast MRI is not sensitive for detecting breast cancers that present as microcalcifications that are only seen well by mammography.



What is breast density and why does it matter on my mammogram?

In 2017 Colorado enacted a breast density notification law that requires each patient receiving a mammogram be notified of their breast density. AMIC radiologists include this information on each mammography report, and in a letter mailed to the patient with her mammography results and breast density.

There are four categories of normal breast density:

- A.** Almost entirely fat - breasts are almost entirely composed of fat. 1 in 10 women
- B.** Scattered fibroglandular densities – scattered areas of dense tissue, but the majority of the breast is not dense, 4 in 10 women have this result
- C.** Heterogeneously dense – there are some areas of non-dense tissue, but the majority of the breast tissue is dense, 4 in 10 women have this result*
- D.** Extremely dense – nearly all of the breast tissue is dense, 1 in 10 women*

* Having heterogeneously dense or extremely dense breasts increases your risk for breast cancer. It also increases the likelihood that breast cancer may go undetected by a mammogram, since the dense breast tissue can mask a potential cancer. Despite concerns about detecting cancer in dense breasts, mammograms are still effective.

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I have been told I have dense breasts, does this change anything for me in terms of screening?

If you have been informed that you have dense breast tissue, then you should strongly consider supplemental screening for breast cancer using breast 3D tomosynthesis.

Would you summarize the message that I should take home to my mother, sisters, daughters and friends about breast cancer screening?

Breast cancer screening recommendations as a whole are unfortunately complicated and without a unified message amongst health professional organizations. This has occurred because it is a complicated topic, and because a public health researcher views breast cancer screenings from a different perspective than a breast oncologist, a breast radiologist, a cancer society, or a family physician. If all perspectives were compiled together, then a recommendation might be:

If you desire to reduce the chance that you will die of breast cancer, and you accept that this may involve some anxiety and stress, then having a screening mammogram every year beginning at age 40 is your best choice. No other method of screening the breast, interval of screening, or age to start screening has better overall effectiveness.

Being informed and up to date is important, including knowledge of your breast density and your approximate lifetime risk score for breast cancer. Discuss with your trusted health provider to determine if supplemental screening or genetic testing is appropriate, and to agree on a tailored screening plan that is just right for you.

Resources

www.cdc.gov/cancer/breast/pdf/BreastCancerScreeningGuidelines.pdf
www.sbi-online.org/endtheconfusion/FactsFigures.aspx
www.cancer.org/cancer/breast-cancer/risk-and-prevention.html
www.ajronline.org/doi/10.2214/AJR.16.17127
www.breastsurgeons.org/about/statements/PDF_Statements/Screening_Mammography.pdf
ww5.komen.org/Breastcancer/Highbreastdensityonmammogram.html
www.bcrisktool.cancer.gov/
www.mammographysaveslives.org/