

So, Your Patient Wants to Discuss Screening Mammography, and . . .



She wants to know what approach will minimize her chance of dying of breast cancer¹:

Screening regimen, patient age (y)	Reduction in risk of dying of breast cancer ¹	Number of women whose lives will be saved (per 100,000) ¹	Life-years gained (per 100,000) ¹
Yearly, 40–84 [*]	40%	1,190	18,900 (+72%) [#]
Yearly, 45–54; every other year, 55–79 [~]	31%	925	14,900 (+35%) [#]
Every other year, 50–74 [^]	23%	695	11,000

^{*}American College of Radiology, Society of Breast Imaging, American Society of Breast Surgeons and National Comprehensive Cancer Network

[~]American Cancer Society

[^]United States Preventive Services Task Force

[#]Percentage increase in number of life-years gained compared to screening every other year age 50–74.

She wants to know at what age she should start getting screened:

Breast cancer is the second leading cause of all deaths for women ages 40–49. One in six breast cancers and about 30% of total years of life lost to breast cancer are from women diagnosed in their 40s.²

1. Half of all fatal breast cancers are diagnosed before age 50.³
2. All major groups agree that annual screening beginning at age 40 saves the most lives and most years of life. These groups include the USPSTF, NCCN, ACOG, WHO, ACS, ASBrS, ACR and SBI.
3. One third of all breast cancers in Black, Asian and Hispanic women and one fourth of all breast cancers in White women are diagnosed under age 50.⁴
4. Starting screening at age 40 will save 100,000 more lives over a decade than starting at 50.¹
5. Women ages 40–49 years who do not get screened frequently are 3.4 times more likely to need a mastectomy and 2.5 times more likely to need chemotherapy if they get breast cancer.⁵

She has no family history of breast cancer and asks whether she needs to be screened:

1. 75% of women who develop breast cancer are considered “average risk.” They have no family history of breast cancer and no risk factor other than the fact they are women.
2. All women, especially Black women and those of Ashkenazi Jewish descent, should be evaluated for breast cancer risk no later than age 25, so that those at highest risk can be identified and can benefit from supplemental screening.⁶

Place Your Logo Here



She worries she may need a biopsy:

1. The likelihood of needing a needle biopsy of a benign breast lesion found at screening is about 1% per year. Therefore, most women will never need a needle biopsy for a benign breast lesion.⁷
2. Almost all biopsies performed today are minimally invasive percutaneous needle biopsies. Very few women need a surgical biopsy to establish or exclude a diagnosis of breast cancer.
3. Percutaneous needle biopsies are well-tolerated. 90% of women report no pain or only mild discomfort during the procedure.⁸

She wants to know what approach will minimize her chance of unnecessary treatment:

Overdiagnosis refers to detection of a cancer that would not become clinically evident in a patient's lifetime.

1. The best-designed studies confirm that only 1% to 10% of breast cancers diagnosed by screening represent overdiagnosis.⁹ Most of those are DCIS and most are in women over 80 years of age.¹⁰
2. For women in their 40s, SEER data confirm that only 0.1% of screening-detected breast cancers are overdiagnosed. Because their life expectancy is long, nearly all would present with clinical signs or symptoms of breast cancer before they die of something else.¹⁰
3. Breast cancers never regress on their own without treatment. The few truly overdiagnosed cancers will be detected on the next exam. Screening later or less often will not reduce overdiagnosis.¹¹

She wants to know at what age she should stop getting screened:

Data confirm that women 75 years of age and above reap the same benefits of early detection from screening as younger women: more lives saved through less invasive treatment.

1. Medicare claims data indicate that women ages 69–84 who are screened each year are 2.5 to 3 times less likely to die of breast cancer than those screened less frequently or not at all.¹²
2. According to the National Comprehensive Cancer Network (NCCN), an upper age limit for screening has not been established.¹³ Screening remains effective unless comorbid conditions limit life expectancy (e.g., ≤ 10 years) or therapeutic intervention would not be considered.

If she wants more information about screening mammography?

Please visit MammographySavesLives.org and EndTheConfusion.org.

Place Your Logo Here



American College
of Radiology™



REFERENCES:

1. Arleo EK, Hendrick RE, Helvie MA, Sickles EA. Comparison of recommendations for screening mammography using CISNET models. *Cancer*. 2017;123(19):3673-3680.
2. Oeffinger KC, Fontham ET, Etzioni R, et al. Breast Cancer Screening for Women at Average Risk 2015 Guideline Update From the American Cancer Society *JAMA*. 2015;314(15):1599-1614.
3. Webb ML, Cady B, Michaelson JS, et al. A failure analysis of invasive breast cancer. *Cancer*. 2014;120:2839-2846.
4. Stapleton SM, Oseni TO, Bababekov YJ, Hung YC, Chang DC. Race/Ethnicity and Age Distribution of Breast Cancer Diagnosis in the United States. *JAMA Surg*. Jun 1, 2018; 153(6):594-595.
5. Ahn S, Wooster M, Valente C, et al. Impact of screening mammography on treatment in women diagnosed with breast cancer. *Ann Surg Oncol*. 2018;25(10):2979-2986.
6. Monticciolo DL, Newell MS, Moy L, Niell B, Monsees B, Sickles EA. Breast Cancer Screening in Women at Higher-Than-Average Risk: Recommendations From the ACR. *J Am Coll Radiol*. 2018 Mar;15(3 Pt A):408-414. doi: 10.1016/j.jacr.2017.11.034. Epub 2018 Jan 19. PMID: 29371086
7. Yaffe MJ, Mittmann N, Lee P, et al. Clinical outcomes of modelling mammography screening strategies. *Health Rep*. 2015;26(12):9-15.
8. Soo AE, Shelby RA, Miller LS, et al. Predictors of pain experienced by women during percutaneous imaging-guided breast biopsies. *J Am Coll Radiol*. 2014;11(7):709-716.
9. Puliti D, Duffy SW, Miccinesi G, et al; EUROSCREEN Working Group. Overdiagnosis in mammographic screening for breast cancer in Europe: a literature review. *J Med Screen*. 2012;19 Suppl 1:42-56.
10. Hendrick RE. Obligate overdiagnosis due to mammographic screening: a direct estimate for U.S. women. *Radiology*. 2018;287(2):391-397.
11. Arleo EK, Monticciolo DL, Monsees B, McGinty G, Sickles EA. Persistent untreated screening-detected breast cancer: an argument against delaying screening or increasing the interval between screenings. *J Am Coll Radiol*. 2017;14(7):863-867.
12. Sanderson M, Levine RS, Fadden MK, et al Mammography screening among the elderly: a research challenge. *Am J Med*. 2015;128(12):1362.e7-e14.
13. National Comprehensive Cancer Network. Breast cancer screening and diagnosis. Version 3.2018. http://www.nccn.org/professionals/physician_gls/pdf/breast-screening.pdf. Accessed May 1, 2019.