

I hate breast cancer. As a radiologist who specializes in breast imaging, my career is devoted to the detection and diagnosis of breast cancer. I am passionate about women's health and my goal is to find breast cancer when it is most treatable.

There is a great deal of confusion surrounding screening mammography. Every week, I see women diagnosed with advanced breast cancer who have never had (or have not recently had) a screening mammogram. It saddens me to say that even with the most advanced cancer treatments, these women are more likely to die of their breast cancer. I would like to take this opportunity to clear up some of the misunderstanding surrounding mammography and to provide answers to a number of frequently asked questions about mammograms.

Q: Why is breast cancer a big deal?

A: Breast cancer is the 2nd leading cause of cancer death in US women. Over 230,000 women were diagnosed with breast cancer last year and over 40,000 women died of breast cancer last year.

Q: Why are mammograms important?

A: Mammograms are the only screening tool shown to decrease death from breast cancer. Mammograms result in a 30% reduction in breast cancer deaths.

Mammograms detect smaller cancers long before they become palpable lumps identified by a woman or her clinician. Mammograms also detect pre-cancer before it becomes cancer. Mammograms save lives through earlier detection, when breast cancers are smaller and more treatable.

Q: When should I get a mammogram?

A: Once a year, every year, starting at age 40. Annual screening mammograms starting at age 40 save the most lives and years of life from breast cancer.

Q: I thought that women in their 40s don't get breast cancer. Is this true?

A: No. Breast cancer is a big deal for women in their 40s. 1/3 of all years of life lost due to breast cancer is from women diagnosed in their 40s. 1 in 6 breast cancers occur in women in their 40s.

Q: Should I get a mammogram once a year or every other year?

A: Every year. Annual screening mammography starting at age 40 saves the most lives and the most years of life from breast cancer.

Q: What about guidelines that suggest I can start at age 50 and get mammograms every other year?

A: Every society and task force agrees that annual screening mammography starting at age 40 saves the most lives and the most years of life from breast cancer. Differences in recommendations have to do with minor risks of mammograms, including anxiety from getting called back for extra pictures and having a benign breast biopsy, versus the benefit of saving lives through earlier cancer detection. Nothing suddenly changes at age 50. There is no scientific or biologic reason to delay screening until age 50. Decades of scientific research has shown that the most lives and the most years of life are saved by yearly screening mammograms beginning at age 40.

Q: Breast cancer is very treatable these days. Are mammograms still important?

A: Yes, even with our advanced and modern treatments for breast cancer, the size of the cancer at the time of diagnosis is still very important. The larger the cancer at the time of diagnosis, the worse the survival. Mammograms find smaller breast cancers. If a woman waits until the cancer grows into a lump she can feel, the cancer is larger, detected later, and her likelihood of survival will be lower.

Q: I don't have a family history of breast cancer. Are mammograms still important for me?

A: Yes. $\frac{3}{4}$ of all women diagnosed with breast cancer have no family history and are not considered high

risk. Unfortunately, breast cancer is very common. US women have a 1 in 8 lifetime risk of breast cancer. Mammography saves lives through early detection.

Q: I'm 70 years old. When should I stop getting my mammogram?

A: Women in the United States have a life expectancy of approximately 80 years. Many women live well beyond 80 years. If you think you will be in good health for the next 5-7 years, then keep getting your mammogram.

Q: I'm worried about the radiation from a mammogram. How much radiation do I receive from a mammogram?

A: Mammograms are safe and have a very low dose of radiation. Your mammogram has less radiation than 2 months of naturally occurring background radiation that we all get just by living on planet earth.

Q: I heard that we are overdiagnosing breast cancers. Do mammograms lead to overdiagnosis?

A: It is estimated that 10% or less of breast cancers are overdiagnosed, meaning that if left untreated, they would not kill a woman. The problem is that we cannot tell the difference between which breast cancers will kill a woman and which will not. Over 40,000 women died of breast cancer last year. Our

best chance to help a woman survive breast cancer is to detect it earlier when it is smaller and when her chance of survival is greatest.

Q: I have dense breasts. Are mammograms still a good screening tool for me?

A: Yes. Cancers are still detected on conventional mammograms in women with dense breasts. The challenge with dense breasts is that they are mostly white on a mammogram and cancers are also white on a mammogram. It is easier for cancers to hide on a mammogram if a woman has dense breasts. A newer type of mammogram called tomosynthesis, a.k.a. the “3D mammogram,” lets us see through that dense tissue. The mammogram tube moves in an arc like a rainbow and creates 1mm thick pictures through the breast. Radiologists can more easily see through the dense tissue and find more breast cancers hiding in areas of dense tissue.

Q: Can anyone get the 3D mammogram or just women with dense breasts?

A: Studies have shown that 3D mammograms find more cancers in every breast density, not just dense breasts. Also, you are less likely to get called back for extra mammogram pictures if you start with a 3D mammogram as part of your routine yearly screening.

Q: Does my insurance cover 3D mammograms?

A: Most insurance companies cover 3D mammograms. A few do not. If your insurance does not cover it, most facilities are charging a low flat fee for the service.

Q: What about screening ultrasound?

A: Screening ultrasound has been shown to detect a few more breast cancers in high risk women. The problem with screening ultrasound is that it has a high false positive rate. We find more questionable abnormalities, do more biopsies, and only a very small number of these are breast cancers. The false positive rate for screening ultrasound is higher than that of mammography. Also, mammograms and 3D mammograms are able find signs of pre-cancer, such as suspicious types of calcium, which are not seen on ultrasound.

Q: What about Breast MRI?

A: Breast MRI is a powerful and sensitive tool and it has the highest rate of cancer detection amongst screening modalities. However, it also finds many things that are not breast cancer and it is expensive. Because of this, breast MRI is primarily recommended for high risk women who have a greater than 20% lifetime risk of breast cancer. Talk to your clinician to determine your risk. There are online risk assessment tools that calculate your lifetime risk

of breast cancer based upon family history and prior breast biopsy results.

Q: Are breast self exams still important?

A: Yes! Keep doing your breast self exams. A convenient time is when you are in the shower. You are looking for something that feels firm and different than the rest of the breast tissue, like a knuckle on your hand. If you have a lump, go to your clinician and get it checked out. Similarly, if you have new focal breast pain, go to your clinician and have it evaluated.

Q: Where can I get more information?

A: Here are some online resources:

Mammographysaveslives.org

Endtheconfusion.org

www.cancer.org

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