



# Breast Cancer Screening: Mammograms, MRIs, and More -- or Perhaps Less

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The debate about who, when, and what in regards to breast cancer screening had seem to settle down, until the last couple weeks. The pot has been stirred again. Last week, the medical journal *Annals of Internal Medicine* published new mammography guidelines for women age 40 to 49.

The major players in the latest debate are some well-respected medical associations, including the American Cancer Society, the National Cancer Institute, the American College of Physicians (ACP) and the U.S. Preventive Services Task Force (USPSTF).

Let's start with what they all agree upon. All women age 50 and over should have yearly or bi-yearly mammograms for early detection of breast cancer. Although some experts have challenged the value of routine mammography for any woman at average risk, most doctors start screening women for breast cancer at age 50.

## The Mammogram Controversy

The American Cancer Society and National Cancer Institute recommend that women ages 40 to 49 at average risk for breast cancer get screened with yearly or bi-yearly mammograms. The last formal guidelines from the USPSTF concur. The ACP says "not so fast." They think women age 40 to 49 should be offered mammography, but only after they are informed about the pros and cons of getting the test.

**The pros.** Routine mammography for women in their 40s is likely to save some lives. But many women have to undergo mammography to make that happen. An estimated 10,000 women will need routine mammography to potentially save 6 lives.

Although breast cancer occurs less often at younger ages, when it does occur it is often very aggressive. Finding it early improves the chance of cure. Also detecting a cancer while it is still small makes it more likely that lumpectomy (removal of the cancer only) rather than mastectomy (removal of the whole breast) can be performed.

**The cons.** There also are reasons for women under age 50 to opt out of screening mammography. Too many of the spots seen on mammograms in younger women turn out to be false positives, meaning that spot represents benign changes, not cancer.

Pre-menopausal women have higher false positive rates on mammograms because they have less fat in their breasts than postmenopausal women. Fat looks different than any other tissues on a mammogram. However, normal, non-fatty breast tissue can be dense and irregularly shaped, which can be mistaken for cancer. With less fat, determining whether a spot is a cancer or normal tissue is more difficult.

By far, most of the changes that look worrisome on the mammograms of younger women turn out not to be cancer. A woman age 40 to 49 has a 30% chance of at least one false positive exam after having five screening mammograms. The only way to know whether a spot is cancerous is to do more tests. Most of the time a biopsy is needed. The tests cause a lot of worry and additional cost, and they can even be harmful. Sometimes surgery is needed to determine whether a spot is cancer.

## Is MRI Better Than Mammography?

Yes and no. MRIs of the breast show more detail than mammograms. But the problem is they show too much detail—leading to a greater chance of false positives. Add to that problem the fact that MRIs cost 10 times what mammograms cost, and you'll see why no association is recommending routine breast cancer screening with an MRI.

MRI should be reserved for women with a lifetime breast cancer risk of 20% or more. Women with a known family history of BRCA1 or BRCA2 genetic changes fall into this high-risk category. Having two or more first degree relatives with breast or ovarian cancer, especially if these cancers occurred at a young age, also substantially raises a woman's breast cancer risk.

## My Recommendation

Personally, I recommend routine mammograms for women starting at age 40. But I inform them that it is quite likely they will be called back for more pictures and tests, and possibly even a biopsy. I let them know that the uncertainty about the final diagnosis could last for weeks or even a couple of months.

For some women, this potential for uncertainty seems too disruptive to their lives. If a woman makes the choice not to get screened, I will ask her to reconsider the choice in one year. It will be important to make sure nothing has changed that now puts her at higher than average risk for breast cancer.

And a woman who initially decides not to get screened can change her mind at any time -- next week, next month, or in six months -- and decide to go for the mammogram.

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