



What about “false positives”?

While it's understandable that being recalled after your screening mammogram for additional imaging can be inconvenient and scary, the importance being placed on the “risks of screening” have been largely overstated. Consider the following:

- The rate of being recalled from a screening mammogram for additional testing is approximately 10%, or 100 women in every 1000 screened. This is the “false positive” rate to which some of the recent studies have referred. This rate is similar to that seen in other screening exams such as the “Pap” smear for cervical cancer screening.
- When a radiologist recalls a woman from a screening mammogram, the radiologist gives an assessment of BIRADS 0, meaning that the screening exam is incomplete. This can be best thought of as a request for more information.
- Greater than 50% of those recalled from screening mammography will be given a negative or benign assessment after they return for a few more mammogram or ultrasound pictures. An additional 25% will ultimately receive a negative or benign assessment after a 6 month follow-up course.
- The rate of core needle biopsy generated from the entire screening population is just under 2% or approximately 19 women in every 1000. Approximately 30% of those women undergoing needle biopsy will be diagnosed with breast cancer. When a radiologist considers the false positive rate, they look at the number of women recommended to have biopsies that are shown not to have cancer at the time of biopsy, not the number of women recalled from their screening mammogram. When you consider a population of 1000 women, only 13 women (1.3% of the entire population) would undergo biopsy and receive a diagnosis other than cancer.
- The yield of 30% of biopsies recommended by abnormal mammograms resulting in a cancer diagnosis is double that of biopsies performed for palpable lumps felt by physicians (15% diagnosed with cancer). Considering that cancers found when palpable are typically later stage, larger, and less curable than cancers detected in asymptomatic women by screening mammography, the fact that the rate of cancer diagnosis from biopsies generated by screening mammograms is double that of biopsies performed on palpable lumps is remarkable.
- Studies have shown no lasting effects to potential anxiety caused over being recalled for an inconclusive mammogram.
- Short term anxiety does not outweigh a 35% reduction in breast cancer deaths by screening mammography

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What about overdiagnosis (i.e. finding an early cancer that is slow growing and would not have decreased patient mortality if not found?)

- The rate of overdiagnosis is likely 1-10%, largely due to the inclusion of ductal carcinoma in situ (DCIS). Few, if any, invasive cancers are over-diagnosed and the natural history of some DCIS is to progress to invasive cancer if left untreated.
- Although there are some advocates for a more conservative approach to the treatment of DCIS, at this time we cannot differentiate between which cancers will progress into invasive potentially lethal disease if left untreated and which will not.

Take home points:

-To reduce the risk of dying from breast cancer as much as possible screening mammography should occur annually starting at age 40.

-If you have any questions regarding breast cancer screening, we encourage you to talk with your primary care provider or reach out to the Women's Center at 515-875-9500.

For more information:

<http://www.sbi-online.org/RESOURCES/ScreeningMammography.aspx>

<https://theoncologist.alphamedpress.org/content/19/2/107.full.pdf+html>