

## Breast cancer risk after false-positive mammography results

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False-positive mammograms could be an indicator of underlying pathology that could result in breast cancer, according to a study published April 5 in the *Journal of the National Cancer Institute*.

Screening mammography is associated with false-positive test results in disease-free women, and those women are usually referred back for routine screening after the initial diagnostic work-up does not reveal cancer. Suspicious findings on screenings leading to false-positives include asymmetric densities, skin thickening or retraction, tumor-like masses, recently retracted nipples or suspicious axillary lymph nodes. It is unknown if women whose mammographic screenings show these results have a higher long-term risk for breast cancer compared to women who initially test negative.

In order to determine if women who test false-positive after mammography screenings have a higher risk of developing breast cancer than those who test negative, My von Euler-Chelpin, Ph.D., in the department of public health at the University of Copenhagen and colleagues, gathered data from a long-standing population-based screening mammography program in Copenhagen, Denmark from 1991-2005. They evaluated the risk of breast cancer and ductal carcinoma in situ in women who had received false-positive test results between the ages of 50-69. The age-adjusted relative risk of breast cancer for women who had tested false-positive for breast cancer was compared to women who had tested negative.



The researchers found that women who had tested negative for breast cancer had an absolute cancer rate of 339/100,000 person-years at risk, compared to women who tested false-positive, who had an absolute cancer rate of 583/100,000 person-years at risk. The relative risk of breast cancer in women with false-positive tests was statistically significantly higher than women who tested negative even at 6 or more years after the test. However, the researchers caution that "The excess breast cancer risk in women with false-positive tests may be attributable to misclassification of malignancies already present at the baseline assessment," the authors write. Thus, new screening methods such as high-resolution ultrasound and stereotactic biopsy may result in more accurate diagnoses and fewer false positives on first screen.

The authors also caution that the experience of a false-positive may cause anxiety, which may discourage women from attending regular screenings. However, the long-term excess risk of <a href="mailto:breast cancer">breast cancer</a> in women who tested false-positive underscores the need for women to have regular screenings. "Based on the findings in this study, it may be beneficial to actively encourage women with false-positive tests to continue to attend regular screening."

## Provided by Journal of the National Cancer Institute

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