

# Breast density associated with increased risk of cancer recurrence

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A new study finds that women treated for breast cancer are at higher risk of cancer recurrence if they have dense breasts. Published in the December 15, 2009 issue of *Cancer*, a peer-reviewed journal of the American Cancer Society, the study's results indicate that breast cancer patients with dense breasts may benefit from additional therapies following surgery, such as radiation.

Previous studies indicate that [women](#) with dense [breast tissue](#) are at increased risk of breast cancer. Researchers have suspected that high [breast density](#) may also increase the risk of cancer recurrence after [lumpectomy](#), but this theory has not been thoroughly studied.

Researchers led by Steven A. Narod, MD, of the Women's College Research Institute in Toronto, reviewed the medical records of 335 patients who had undergone lumpectomy for breast cancer. Investigators monitored the patients for cancer recurrence and compared recurrence with breast density as seen on mammogram, categorized as low density (50 percent dense tissue).

The researchers found that patients with the highest breast density had a much greater risk of cancer recurrence than did women with the lowest breast density. Over ten years, women in the highest breast density category had a 21 percent chance of cancer recurrence, compared with a 5 percent chance among women in the lowest category. The difference in the recurrence rates at ten years was even more pronounced for women who did not receive radiation. In those women, 40 percent with

high-density breast tissue had a recurrence compared with none of the patients with low density.

"The composition of the breast tissue surrounding the breast cancer is important in predicting whether or not a breast cancer will return after surgery," concluded Dr. Narod. The authors say their findings indicate that women with low breast density, who have a low chance of recurrence after surgery, may not need radiation but that women with high breast density could significantly benefit from the additional therapy.

More information: "Mammographic density and the risk of [breast cancer](#) recurrence following breast-conserving surgery." Tulin Cil, Eve Fishell, Wedad Hanna, Ping Sun, Ellen Rawlinson, Steven A. Narod, and David R. McCready. *Cancer*; Published Online: November 9, 2009 ([DOI: 10.1002/cncr.24638](#)); Print Issue Date: December 15, 2009.

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