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## Study: Correlation between Density, Cancer in Other Breast



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A new study published in the journal *Cancer* indicates that breast cancer patients with dense breast tissue have almost a two-fold increased risk of developing disease in the contralateral breast. The study is among the first to find the association between breast density (BD) and contralateral breast cancer (CBC), according to researchers from The University of Texas MD Anderson Cancer Center.

**See Also:** [Focal Breast Pain: Does Breast Density Affect the Need for Ultrasound?](#)

The estimated 10-year risk for women with breast cancer developing CBC can be as low as two percent and as high 40 percent. The dramatic range is due mainly to the variability of risk factors across the patient population, says study author Isabelle Bedrosian, MD, associate professor in breast surgical oncology.

For the retrospective, case-controlled study, the researchers identified 680 stage I, II and III breast cancer patients, all treated at MD Anderson between 1997 and 2012. BRCA patients were excluded from the study, given their known increased risk of CBC.

Women with an additional diagnosis of metachronous CBC – defined as BC in the opposite breast diagnosed more than six months after the initial diagnosis – were the “cases,” and patients who had not developed CBC were the “controls.” Cases and controls were matched on a 1:2 ratio based on a number of factors, including age, year of diagnosis and hormone receptor status.

Of the selected patients, 229 were cases and 451 were controls. The MD Anderson researchers categorised each patient’s breast density by mammogram reading, assessed at the time of first diagnosis, as “nondense” or “dense,” using the categorisations from the American College of Radiology.

Among the cases, 39.3 percent were classified as having nondense breast tissue and 60.7 percent as having dense breast tissue, compared to 48.3 percent and 51.7 percent, respectively, in the controls. After adjusting for known breast cancer risk factors, the research team found almost a two-fold increased risk of developing CBC in breast cancer survivors with dense breasts.

“Our findings have valuable implications for both newly diagnosed patients with dense breasts and for breast cancer survivors as we manage their long-term risk of a secondary diagnosis,” said Carlos Barcenas, MD, assistant professor in breast medical oncology, and the study’s corresponding author. “Our future goal is to develop a risk model incorporating breast density to best assess a breast cancer survivor’s risk of developing CBC.”

In the long-term, the MD Anderson researchers hope to use this tool to counsel patients on their personal risk and their options for treatment and surveillance, if their risk is sufficiently high.

Source: [University of Texas M. D. Anderson Cancer Center](#)

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