

# Breast density does not influence breast cancer death among breast cancer patients

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The risk of dying from breast cancer was not related to high mammographic breast density in breast cancer patients, according to a study published August 20 in the *Journal of the National Cancer Institute*.

One of the strongest risk factors for non-familial breast cancer is elevated mammographic [breast density](#). While women with elevated mammographic breast density have a higher risk of developing breast cancer, it is not established whether a higher density indicates a lower chance of survival in breast cancer patients.

In order to determine if higher mammographic breast density is linked to a reduced survival in [breast cancer patients](#), Gretchen L. Gierach, Ph.D., M.P.H., of the Division of [Cancer Epidemiology](#) and Genetics (DCEG) at the National Cancer Institute in Maryland, and colleagues looked at data from the U.S. Breast Cancer Surveillance Consortium and examined 9,232 women who were diagnosed with primary invasive breast carcinoma between 1996-2005 with an average follow-up of 6.6 years. The researchers studied the relationships between mammographic breast density and risk of death from breast cancer and all causes. Mammographic density was measured using the Breast Imaging Reporting and Data System (BI-RADS) density classification.

The researchers found that density does not influence the risk of death once the disease has developed. They write, "It is reassuring that elevated breast density, a prevalent and strong [breast cancer risk](#) factor, was not associated with risk of breast cancer death or death from any cause in

this large, prospective study."

However, they did find an association between low density and increased risk of breast cancer death among obese patients, or those diagnosed with large or high-grade tumors. "One explanation for the increased risks associated with low density among some subgroups is that breasts with a higher percentage of fat may contribute to a [tumor microenvironment](#) that facilitates cancer growth and progression," the authors write.

They add that these findings highlight the need to further probe "possible interactions between breast density, other patient characteristics, and subsequent treatment in influencing breast cancer prognosis."

Provided by Journal of the National Cancer Institute

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