

Breast Implants Linked to Poorer Survival From Breast Cancer

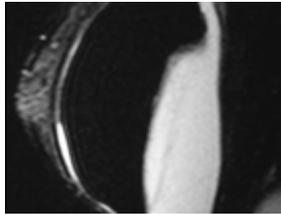
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Women with cosmetic breast implants who develop breast cancer have a higher risk of being diagnosed with nonlocalized breast tumors and have lower breast-cancer-specific survival than women without implants, according to a systematic review and meta-analysis [published online](#) April 30 in *BMJ*. However, study limitations warrant caution when interpreting the results.

"In the United States...cosmetic breast augmentation was the most commonly performed cosmetic surgical procedure in 2011; 307 000 surgeries were performed, an increase of approximately 800% compared with the early 1990s," write Eric Lavigne, from Centre de recherche du CHU de Québec, Faculté de médecine, Université Laval, in Quebec City, Canada, and colleagues. "Although breast augmentation is popular, controversies about the long term health effects of breast implants remain."

Most evidence from epidemiological studies suggests that cosmetic breast implants are not associated with increased risk for breast cancer. However, the radio-opacity of cosmetic breast implants impairs mammographic visualization of breast tissue, potentially hindering detection of breast cancer at an early stage.

The investigators conducted a systematic search of Medline, Embase, Global Health, CINAHL, IPAB, and PsycINFO for studies published before September 2012. Inclusion criteria included participants diagnosed with breast cancer who had had cosmetic augmentation mammoplasty.

The first meta-analysis included 12 studies looking at nonlocalized stage of breast cancer at diagnosis in women with implants who had breast cancer compared with women without implants who had breast cancer. The overall odds ratio was 1.26 (95% confidence interval [CI], 0.99 - 1.60; $P = .058$; $I^2 = 35.6\%$), indicating a 26% increased risk.

The second meta-analysis included 5 studies assessing the relation between cosmetic breast implantation and survival. Compared with women who did not have implants, those who had implants had reduced survival. Overall hazard ratio for breast-cancer-specific mortality was 1.38, indicating a 38% increased risk (95% CI, 1.08 - 1.75).

Limitations of this study include a possible nondifferential misclassification bias because certain studies in both meta-analyses included cases of in situ breast cancer. One study was responsible for all observed heterogeneity in the analysis of stage distribution of breast cancer, suggesting selection bias. Confounding in the individual studies could also affect the meta-analyses. In addition, methods used to pool the hazard ratios from available data in each study may have underestimated the variance of the estimates.

"The research published to date suggests that cosmetic breast augmentation adversely affects the survival of women who are subsequently diagnosed as having breast cancer," the study authors write. "These findings should be interpreted with caution, as some studies included in the meta-analysis on survival did not adjust for potential confounders. Further investigations are warranted regarding diagnosis and prognosis of breast cancer among women with breast implants."

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