

## Studies reinforce link using bariatric surgery to reduce obesity-associated breast cancer

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New studies aim to clarify the relationship between obesity and breast cancer, and explore the potential role of bariatric surgery in reducing this risk, according to a review published online in *Obesity* journal.



"Our review highlights recent publications linking bariatric surgery to decreased <u>breast cancer</u> incidence, discusses possible consequences of bariatric surgery on <u>breast cancer screening</u> and finally proposes bariatric surgery as a potential preventative and adjuvant therapy for breast <u>cancer</u>," said Andrea M. Stroud, MD, MS, Department of Surgery, Oregon Health & Science University, Portland, Ore. Stroud is the corresponding author of the paper.

In a study by Tsui et al., researchers published the incidence of female-specific (breast, endometrial, ovarian) cancers from the New York Statewide Planning and Research Cooperative System database. This study included a large number of patients, including 55,781 female bariatric surgery patients matched with 247,102 non-surgical participants. Results revealed that incidence of breast cancer was approximately 15% lower in the surgical group compared to individuals who did not have bariatric surgery.

Recent systematic reviews and meta-analyses evaluating the risk of breast cancer after bariatric surgery have showed similar findings. Lovrics et al. pooled results from a total of 11 studies including 1,106,939 patients and found a 50% reduced risk of breast cancer following bariatric surgery. The risk reduction was pre-dominate in higher stage groups and patients who had undergone bariatric surgery were more likely to have early stage cancer, which has better outcomes and survival. The study's authors explain that earlier stage disease in the surgical group could suggest that women in bariatric surgery programs may receive more preventative health screening. Of note, women with obesity are less likely to undergo screening mammography, which can help identify cancer at an earlier stage. Winder et al. found bariatric surgery reduced the incidence of breast cancer by 44% including data from 8 different studies. A systematic review by Ishihara et al. of breast, ovarian and endometrial cancers that included 7 studies, found that breast cancer risk was reduced by 49% in patients who had bariatric



surgery. In summary, these studies suggest that women with obesity who undergo bariatric surgery will reduce their risk of breast cancer in half.

In addition to these studies, this review explores the therapeutic potential bariatric surgery may provide both as a prophylactic and <u>adjuvant</u> therapy in women with obesity who are at higher risk for breast cancer development and worse breast cancer outcomes. The authors' add that with less than one percent of eligible patients being referred for surgery, increased awareness of this treatment option is needed.

The authors of this review discuss that the underlying mechanism of reduced breast cancer risk after bariatric surgery remains an unanswered question. Future treatment of these overlapping diseases should focus on identifying individuals at increased risk, evidence-based screening recommendations, and counseling around weight management options. Additionally, future investigations are needed to better elucidate the role of bariatric <u>surgery</u> in the prevention and treatment of breast cancer.

"Primary care and women's health providers should be aware of the increased risk of breast cancer associated with obesity and weight gain as women age. This patient population would benefit from careful screening and discussion about weight management options, including the benefits of <u>bariatric surgery</u> for <u>breast</u> cancer risk reduction," said Stroud.

Other authors of the study include Trevor Crafts, Jennifer Tonneson and Bruce Wolfe, Department of Surgery, Oregon Health & Science University, Portland, Ore.

The paper, titled "Obesity and Breast Cancer: Preventative and Therapeutic Possibilities for Bariatric Surgery," will be published online in *Obesity*. The paper will be published in the March 2022 print issue.



**More information:** "Obesity and Breast Cancer: Preventative and Therapeutic Possibilities for Bariatric Surgery," *Obesity*, onlinelibrary.wiley.com/doi/10.1002/oby.23369

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