

Study confirms long-term benefits of weight loss surgery in the prevention of cancer

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After adding follow-up years, increased sample sizes and examining multiple surgical procedures, new research shows bariatric surgery is associated with lower all-cancer and obesity-related cancer incidence

among females. The research also found that cancer mortality was significantly lower among female surgical patients compared to non-surgical subjects, according to a new study in *Obesity*.

Although population studies have established a positive association between body mass index and cancer incidence, less clear is whether voluntary reduction in [body weight](#) leads to reduced cancer risk, because significant and sustained weight loss in large populations is difficult to achieve. However, because of the substantial and maintained weight loss following bariatric surgery, studies have reported reduced cancer incidence and lower [cancer mortality](#) in bariatric surgical patients compared with matched non-surgical subjects, according to the study's authors.

"As scientists study human diseases, an element of discovery is to confirm like results from multiple studies. This research represents another important study that strongly supports the long-term benefits of weight loss surgery in the prevention of cancer," said Ted D. Adams, Ph.D., MPH, Intermountain Surgical Specialties/Digestive Health Clinical Program and Intermountain Healthcare; Division of Epidemiology, Department of Internal Medicine and the Department of Nutrition and Integrative Physiology, University of Utah, Salt Lake City, Utah. Adams is the corresponding author of the study.

In the current study, researchers compared cancer incidence and mortality stratified by obesity- and non-obesity-related cancers, sex, cancer stage and procedure. Retrospectively (1982–2019), nearly 22,000 bariatric surgery patients were compared with non-surgical subjects with severe obesity. The participants were matched 1:1 for age, sex and body mass index.

The Utah Population Database was used for this study and included linked population-based data such as statewide birth and death

certificates, the Utah Cancer Registry and driver license information at each license renewal period. Three Utah bariatric surgery registries were linked to the population database and included patients who had undergone gastric bypass, gastric banding, sleeve gastrectomy or duodenal switch procedures. Non-surgical participants were selected for the study from Utah driver license records.

Results showed that the bariatric surgery group had a 25% lower risk for developing any cancers compared to the non-surgery group. Female bariatric surgery patients had a 41% lower risk for developing obesity-related cancers compared to matched non-surgery females. Cancer risk for male bariatric surgery patients was not lower compared to non-surgery male subjects.

Significant reduction in [cancer risk](#) was shown for the following cancers: uterine, ovarian, colon, pre-menopausal breast and post-menopausal breast. Death from cancer was lower by 47% among female bariatric surgery patients compared to matched non-surgery female subjects.

Adams commented, "Important findings of this study are that bariatric surgery results in lower incidence rates of colon cancer (prior studies have not been consistent). Also, both pre- and post-menopausal women experience reduced breast [cancer incidence](#) following bariatric surgery, which may suggest weight loss among women in either category with severe obesity may benefit from reduced breast cancer."

"Adams and colleagues have made another important contribution to our understanding of the relationship between obesity and cancer. The results of this study add to the literature indicating that the large [weight loss](#) seen with bariatric surgery decreases the risk of several types of cancer. The risk of cancer in women, who represent the majority of individuals who undergo bariatric surgery, was most greatly decreased. Persons with obesity and their health care providers should strongly

consider these benefits when discussing the pros and cons of bariatric [surgery](#)," said David B. Sarwer, Ph.D., associate dean for research; director, Center for Obesity Research and Education, College of Public Health, Temple University, Philadelphia, Pa. Sarwer was not associated with the research.

The study's authors noted that continued [bariatric surgery](#)-driven mechanistic research aimed at cancer prevention remains clinically important.

More information: "Long-Term Cancer Outcomes After Bariatric Surgery," *Obesity* (2023). [DOI: 10.1002/oby.23812](https://doi.org/10.1002/oby.23812).
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