

Weight loss with bariatric surgery cuts the risk of developing cancer and death from cancer

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A Cleveland Clinic study shows that among adults with obesity, weight loss achieved with bariatric surgery was associated with a 32% lower risk

of developing cancer and a 48% lower risk of cancer-related death compared with adults who did not have the surgery. The research is published by *JAMA*.

Approximately 42% of American adults have obesity, according to the Centers for Disease Control and Prevention (CDC). Obesity increases the risk of developing 13 types of cancer that account for 40% of all cancers diagnosed every year in the United States, according to the CDC.

Ali Aminian, M.D., lead author of the study and director of Cleveland Clinic's Bariatric & Metabolic Institute, said that bariatric surgery is currently the most effective treatment for obesity. "Patients can lose 20 to 40% of their [body weight](#) after surgery, and weight loss can be sustained over decades. The striking findings of this study indicate that the greater the weight loss, the lower the risk of cancer," said Dr. Aminian.

The SPLENDID (Surgical Procedures and Long-term Effectiveness in Neoplastic Disease Incidence and Death) research is a matched-cohort study that included more than 30,000 Cleveland Clinic patients. A group of 5,053 [adult patients](#) with obesity who had bariatric surgery between 2004 and 2017 were matched 1:5 to a [control group](#) of 25,265 patients who did not have surgery for their obesity.

After 10 years, 2.9% of patients in the bariatric surgery group and 4.9% of patients in the non-surgical group developed an obesity-associated cancer. The International Agency for Research on Cancer describes 13 types of cancer as obesity-associated cancers such as endometrial cancer, postmenopausal breast cancer, and cancers of the colon, liver, pancreas, ovary and thyroid.

After 10 years, 0.8% of patients in the surgery group and 1.4% of

patients in the non-surgical group died from cancer. Those findings indicate that bariatric surgery is associated with a 48% lower risk of dying from cancer.

Researchers noted that the benefits of bariatric surgery were seen in a wide range of study participants, including both women and men, young and old, and Black and white patients. In addition, benefits were similarly observed after both gastric bypass and gastric sleeve operations.

"According to the American Cancer Society, obesity is second only to tobacco as a preventable cause of cancer in the United States," said the study's senior author, Steven Nissen, M.D., Chief Academic Officer of the Heart, Vascular and Thoracic Institute. "This study provides the best possible evidence on the value of intentional weight loss to reduce cancer risk and mortality."

Numerous studies have shown the health benefits of bariatric or weight-loss surgery in patients with obesity. The Cleveland Clinic-led STAMPEDE study showed that following bariatric surgery, significant weight loss and control of type 2 diabetes last over time. The SPLENDOR study showed that in patients with fatty liver, bariatric surgery decreases the risk of the progression of liver disease and serious heart complications.

The SPLENDID study adds important findings to the literature focused on the link between obesity and cancer. Given the growing epidemic of obesity worldwide, these findings have considerable public health implications.

"Based on the magnitude of benefit shown in our study, [weight loss surgery](#) can be considered in addition to other interventions that can help prevent cancer and reduce mortality," said Jame Abraham, M.D.,

chairman of the Hematology and Medical Oncology Department at Cleveland Clinic. "Further research needs to be done to understand the underlying mechanisms responsible for reduced [cancer](#) risk following [bariatric surgery](#)."

More information: Ali Aminian et al, Association of Bariatric Surgery With Cancer Risk and Mortality in Adults With Obesity, *JAMA* (2022). [DOI: 10.1001/jama.2022.9009](https://doi.org/10.1001/jama.2022.9009)

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