

Study finds low short-term risks after bariatric surgery for extreme obesity

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Short-term complications and death rates were low following bariatric surgery to limit the amount of food that can enter the stomach, decrease absorption of food or both, according to the Longitudinal Assessment of Bariatric Surgery (LABS-1). The study was funded by the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), part of the National Institutes of Health. Results are reported in the July 30 issue of the *New England Journal of Medicine*.

Less than 1 percent (0.3 percent) of patients died within 30 days of surgery, further supporting the short-term safety of bariatric surgery as a treatment for patients with extreme obesity.

Bariatric surgery can have dramatic health benefits--such as improved [blood sugar](#) control or even reversal of [type 2 diabetes](#). But it also carries serious risks, including death. The LABS-1 study aimed to evaluate the short-term safety of bariatric surgery to help doctors and patients understand the risks.

"Evaluating the 30-day safety outcomes of bariatric surgery in large populations is an essential step forward," according to co-author Myrlene Staten, M.D., senior advisor for diabetes translation research at NIDDK, part of NIH. "And LABS-1 data are from all patients who had their procedure performed by a surgeon participating in the study, not from just a select few patients."

Various types of bariatric surgery limit food intake, nutrient absorption or both. The major types of surgery undergone by participants in this study included laparoscopic adjustable gastric banding, laparoscopic Roux-en-Y [gastric bypass](#) and open Roux-en-Y gastric bypass. Gastric bands create a pouch around the top of the stomach to limit food intake at any one time. Gastric bypass also creates a pouch and redirects food around most of the stomach and part of the small intestine, limiting the absorption of food.

The LABS-1 consortium followed 4,776 patients who had bariatric surgery for the first time, evaluating complications and death rates within the first 30 days after surgery. Patients were at least 18 years old and had an average body mass index (BMI) of 44, considered extremely obese. BMI measures weight in relation to height. As with most populations undergoing bariatric surgery, the majority of LABS-1 patients were white and female. The study took place over two years at 10 medical sites, with one additional center coordinating data collection and analyses.

Within 30 days of surgery, 4.1 percent of patients had at least one major adverse outcome, defined as death, development of blood clots in the deep veins of the legs or in the pulmonary artery of the lungs, repeat surgeries, or failure to be discharged from the hospital within 30 days of surgery.

Thirty day mortality was low, ranging from no deaths in the laparoscopic adjustable gastric band group, to six (0.2 percent) in the laparoscopic Roux-en-Y gastric bypass group, to nine (2.1 percent) in those undergoing open Roux-en-Y gastric bypass. The overall risk of complications also varied by procedure.

The investigators pointed out, however, that people undergoing some procedures, such as open Roux-en-Y gastric bypass, tended to be heavier and sicker than those undergoing laparoscopic adjustable gastric banding, and after adjusting for patient and center characteristics, there were no significant differences in complication risk that could be attributed to the type of procedure. There were some patient factors that increased the risk of complications, including a preoperative history of deep vein blood clots and sleep apnea. Patients with a very high BMI, a measure that relates weight to height, were also at increased risk--those with a BMI of 75 had a 61 percent higher risk of complications than those with a BMI of 53.

Currently, more than one third of U.S. adults are obese (BMI higher than 30) and an increasing number are extremely obese (BMI higher than 40), according to the U.S. Centers for Disease Control and Prevention. People who are extremely obese are potential candidates for bariatric surgery.

"There is a real need to determine safe and effective treatments for patients with extreme obesity and its associated medical conditions," said Susan Z. Yanovski, M.D., a co-author of the paper and co-director of NIDDK's Office of Obesity Research. "This study's results can help patients and physicians make informed decisions about potential risks and benefits of bariatric surgery."

Source: NIH/National Institute of [Diabetes](#) and Digestive and Kidney Diseases

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