

Minimally invasive approach to weight-loss surgery reduces complications, study shows

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A study by researchers at Stanford University Medical Center has found that a popular weight-loss operation is safer and reduces hospital bills when done with minimally invasive techniques rather than open surgery, which requires a large abdominal incision.

The authors say that, to their knowledge, this is the first time the open and minimally invasive approaches have been compared at a national level. "There have been single-center randomized trials that support the greater safety and efficacy of the minimally [invasive approach](#), but what our study does is to confirm that those results are actually occurring in practice at hospitals and [academic medical centers](#) across the country," said John Morton, MD, MPH, associate professor of surgery and senior author of the study, which is to be published online June 18 in the [Archives of Surgery](#).

The patients who underwent the laparoscopic, or minimally invasive, procedure had lower [mortality rates](#), lower complication rates, shorter hospital stays and lower [hospital charges](#) compared with those who underwent [open surgery](#), even after adjusting for differences in the patients' socioeconomic levels and co-morbidities, the study reports.

The researchers examined 156,271 Roux-en-Y gastric bypass cases performed between 2005 and 2007 nationwide, including 115,177 patients who had the [laparoscopic approach](#) and 41,094 who had it done as open surgery.

The operation involves making a small pouch from the upper part of the stomach and connecting it directly with the middle section of the small intestine, bypassing the rest of the stomach and upper section of the small intestine. The result is that patients cannot eat as much food at one time and feel fuller with smaller portions.

Morton, who is also director of bariatric surgery at Stanford Hospital & Clinics and director of the Surgery Center for Outcomes and Research Evaluation at Stanford, said he wasn't surprised that the laparoscopic technique got good marks for patient safety. "What did surprise me was the degree of superiority pretty much across the board compared with open surgery," he said.

There were lower rates of in-hospital complications experienced by the laparoscopic patients in 15 out of 18 complication categories, including cardiac arrhythmia, sepsis and the need for a blood transfusion, the study reports. In addition, the patients who had the minimally invasive procedure were found to have shorter hospital stays.

The authors cite previous research in noting that "mortality and other complications are serious risks associated with bariatric surgery and are inversely correlated with the volume of cases performed by the surgeon."

They add: "The Centers for Medicare & Medicaid Services determined that bariatric procedures should only be performed at high-volume facilities that are either certified by the American College of Surgeons or the American Society for Metabolic and Bariatric Surgery/Surgery Review Corporation as a Bariatric Surgery Center of Excellence."

The Centers for Medicare & Medicaid Services define high-volume practices as those that perform 125 or more weight-loss surgeries annually.

Approximately 300 weight-loss operations are performed each year at Stanford Hospital, whose Bariatric and Metabolic Interdisciplinary Clinic is the only Bariatric Surgery Center of Excellence in Northern California to achieve Level 1A certification by the American College of Surgeons.

Provided by Stanford University Medical Center

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