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The Gravity of Weight

Unbearable Heaviness of Being: Considering Bariatric Surgery

When diet, exercise, and even medication are not enough

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Bariatric surgery is generally intended for severe obesity

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As the population of the U.S. grows heavier and heavier, obese patients have turned to major abdominal surgery as an alternative treatment when they have been unsuccessful at losing significant weight (and maintaining that weight loss over time) by a combination of diet, exercise, and even medication alone. Currently, surgical treatment is recommended only when a person has at least a body mass index (BMI) of 40 kg/m² (considered "extreme," "morbid," or Class 3 obesity) or a BMI of 35 kg/m² (class 2 obesity) when there are substantial, significant accompanying medical conditions such as diabetes, hypertension, cardiac disease, or obstructive respiratory disease. (e.g. sleep apnea).

Bariatric surgery has considerable benefits besides substantial weight loss. Even before weight loss (and sometimes within days of surgery), some patients have improved metabolic profiles, including resolution of their diabetes and hypertension.

There have been many techniques in use over the last 50 years, but the two most common ones in use today are the gastric bypass (also known as the Roux-en-Y) and some form of gastric banding. Gastric banding is considered a restrictive technique in which the stomach capacity is made smaller by a band, placed either vertically or horizontally. Over time, though, the smaller stomach pouch may enlarge or the

staples used to hold some bands in place may deteriorate so that a second surgical procedure is required. Some banding techniques can be done laparoscopically, with minimal hospital stays.



Body Mass Index (BMI), a weight/height ratio, is one measure used to determine classification of obesity but waist circumference measures are important as well

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Gastric bypass involves more extensive surgery and has a restrictive component, a malabsorption component, and a hormonal component. The surgery involves creating a small pouch in the stomach, but also "rearranging gastrointestinal anatomy," as researchers Cummings and Flum have described, by bypassing parts of the small intestine. This procedure can be done either abdominally or laparoscopically but does not allow, as do the banding techniques, for adjustments, should they become necessary over time so it has been considered a "one size fits all technique." Significantly, though, gastric bypass surgery inhibits the secretion of several hormones

including ghrelin, the hormone that makes us feel hungry, and this may be responsible for the decreased appetite that may occur after surgery. Typically, bypass surgery leads to greater weight loss than the banding techniques and is less likely to require a second surgery.

Bariatric surgery is not necessarily a benign procedure. In an article written a few years ago in *The New York Times*, Stephen J. Dubner and Steven D. Levitt, who wrote the book *Freakonomics*, suggested that surgery for weight loss is what economists call a "commitment device." In other words, once started, "retreat is not an option." Dubner and Levitt jokingly suggested that in lieu of such a drastic strategy, the obese carry around their necks a Ziplock bag with a towelette "infused with...a deeply disgusting" smell to deter them from eating too much

Over the years, mortality and complication (morbidity) rates from the various bariatric procedures have decreased, but still obviously depend on the skill and experience of the surgeons and their surgical teams. Serious complications, though, can still occur after surgery, including wound infections, pulmonary embolism, bowel obstruction, hemorrhage, deep vein thrombosis, and even the catastrophe of peritonitis. But even uncomplicated gastric bypass surgery requires postoperative follow-up as vitamin D, B12, calcium, and iron deficiencies should be anticipated. Furthermore, up to 70% of those who have had gastric bypass develop the "dumping syndrome"--symptoms that include light-headedness, nausea, flushing, sweating, abdominal pain, palpitations, and diarrhea after eating sugary foods. Vomiting is not uncommon with any bariatric procedure and can last for years after surgery. Though patients can lose from 40 to over 100 pounds over time, about 20 to 30% will regain considerable weight in the two years after surgery. The mechanisms for weight regain include increased intake of calories as the stomach pouch may enlarge over

