Clinical Policy: Bariatric Surgery

Description
There are two categories of bariatric surgery: restrictive procedures and malabsorptive procedures. Gastric restrictive procedures include procedures where a small pouch is created in the stomach to restrict the amount of food that can be eaten, resulting in weight loss. The laparoscopic adjustable gastric banding (LAGB) and laparoscopic sleeve gastrectomy (LSG) are examples of restrictive procedures. Malabsorptive procedures bypass portions of the stomach and intestines causing incomplete digestion and absorption of food. Duodenal switch is an example of a malabsorptive procedure. Roux-en-y gastric bypass (RYGB), biliopancreatic diversion with duodenal switch (BPD-DS), and biliopancreatic diversion with gastric reduction duodenal switch (BPD-GRDS) are examples of restrictive and malabsorptive procedures.

LAGB devices are currently not FDA approved for adolescents less than 18 years, and are being used less for adolescents in favor of SG.

Policy/Criteria
It is the policy of Louisiana Healthcare Connections that bariatric surgery is medically necessary when the following criteria under section I and II are met:

I. Medical history, meets all of the following:
   A. Age and body mass index (BMI) (meet criteria in 1 or 2)
      1. Age > 18 and: Obesity has continued despite previous weight loss attempts, or waiting for attempted weight loss could result in worsening of a health condition and one of the following (a, b, or c):
         a. BMI ≥ 40 kg/m² and LAGB, LSG, laparoscopic RYGB or laparoscopic BPD DS/BPD-GRDS is requested;
         b. BMI ≥ 35 and < 40 kg/m² and both of the following:
            i. LAGB, LSG, laparoscopic RYGB or BPD-DS/BPD-GRDS is requested;
            ii. One of the following comorbidities is present:
               a) Type 2 diabetes mellitus (DM)
               b) Poorly controlled hypertension
               c) Dyslipidemia
               d) Obstructive sleep apnea
               e) Obesity-hypoventilation syndrome/Pickwickian syndrome
               f) Nonalcoholic fatty liver disease or nonalcoholic steatohepatitis
               g) Coronary artery disease
               h) Cardiomyopathy
               i) Gastroesophageal reflux disease
               j) Asthma
               k) Venous stasis disease
               l) Severe urinary incontinence
               m) Osteoarthritis (hip, knees and/or ankles)
               n) Idiopathic intracranial hypertension
         c. BMI ≥ 30 and < 40 kg/m² and both of the following:
            i. Type 2 DM;
            ii. LAGB, LSG or laparoscopic RYGB is requested;
      2. Age < 18 years, LSG or laparoscopic RYGB is requested, and one of the following (a or b):
Bariatric Surgery

a. BMI ≥ 40 kg/m² or 140% of the 95th percentile (whichever is lower);

b. BMI ≥ 35 kg/m² or 120% of the 95th percentile with ≥ 1 severe comorbidity listed below that has significant short-term effects on health and that is uncontrolled with lifestyle or pharmacotherapy management:

i. Type 2 DM

ii. Obstructive sleep apnea

iii. Idiopathic intracranial hypertension

iv. Nonalcoholic steatohepatitis

v. Blount’s disease

vi. Slipped capital femoral epiphysis (SCFE)

vii. Gastroesophageal reflux disease

viii. Hypertension

ix. Hyperlipedemia

x. Insulin resistance

II. Preoperative evaluation and medical clearance requirements within 12 months of the scheduled surgery include all of the following:

A. Cardiac evaluation includes an electrocardiogram and one of the following categories (1 or 2):

1. LOW CARDIAC RISK candidates, with none of the risk factors listed in section 2, need cardiac clearance by a PCP or cardiologist. If additional testing is needed, it should be conducted by a cardiologist.

2. HIGH CARDIAC RISK candidates need consultation/evaluation and cardiac clearance from a cardiologist. High risk candidates include those with any of the following:

   a. History of ischemic heart disease;

   b. History of congestive heart failure;

   c. History of cerebrovascular disease;

   d. Glomerular filtration rate < 30 mL/min⁻¹;

   e. High-grade arrhythmia;

   f. Hemodynamically significant valvular heart disease.

B. Glycemic control should be optimized as evidenced by one of the following (not required if qualifying for surgery based on BMI ≥ 30 kg/m² and < 35 kg/m² with type 2 DM):

1. HbA1c < 7.0%;

2. Fasting blood glucose level of ≤ 110 mg/dL;

3. 2-hour postprandial blood glucose concentration of ≤ 140 mg/dL;

4. HbA1c of 7 - 8% in candidates with advanced microvascular or macrovascular complications, extensive co-morbid conditions, or long-standing diabetes in which the general goal has been difficult to attain despite intensive efforts.

C. Pulmonary Evaluation:

1. Chest x-ray;

2. Screening for obstructive sleep apnea;

3. Pulmonary function testing and arterial blood gas analysis for candidates with intrinsic lung disease or disordered sleep patterns;

4. Polysomnography (PSG) for evaluation of obstructive sleep apnea when at least one of the following criteria for PSG is met:

   a. Recurrent witnessed apnea during sleep > 10 seconds in duration;
b. Excessive or inappropriate daytime sleepiness such as falling asleep while driving or eating;

c. Sleepiness that interferes with daily activities not explained by other conditions, such as poor sleep hygiene, medication, drugs, alcohol, psychiatric or psychological disorders;

d. Having an Epworth Sleepiness Scale score > 10;

e. Persistent or frequent disruptive snoring, choking or gasping episodes associated with awakenings;

5. Specialist should be consulted for interpretation of any abnormal findings.

D. Nutritional evaluation, including micronutrient measurements and treatment of insufficiencies/deficiencies prior to surgery.

E. Nutritional therapy/counseling

1. Initial comprehensive diet history to include assessment of current pattern of nutrition and exercise and steps to modify problem eating behaviors;

2. Monthly nutritional counseling until the date of the surgery;

3. Prescribed exercise program;

4. Must provide documentation that counseling has been conducted regarding the potential for success of weight loss surgery dependent on post-op diet modification (if patient < 18 years of age, consultation must be with adolescent AND parent/guardian).

F. Age appropriate psychiatry/psychology consultation including all of the following:

1. An in-person psychological evaluation to assess for major mental health disorders which would contradict surgery and determine ability to comply with post-operative care and guidelines;

2. If history is positive for alcohol or drug abuse, meets both of the following:
   a. Must provide documentation of alcohol and drug abstinence for ≥ 1 year prior to surgery;
   b. Negative urine drug screen within 3 months of request;

3. If age < 18 years: evaluation must also include assessment of emotional maturity, decisional capacity, family support and family willingness to participate in lifestyle changes.

G. Screened with a TSH level if signs or symptoms of hypothyroidism (other than obesity) are present, and treated if found to be hypothyroid.

H. A fasting lipid panel must be obtained and treatment initiated for dyslipidemia.

I. Screening for Helicobacter pylori with a urea breath test or stool antigen test if signs or symptoms of active peptic ulcer disease are present, with documentation of treatment if positive for H. pylori.

J. Prophylactic treatment for gouty attacks in patients with a history of gout.
K. If tobacco user, must stop use > 6 weeks prior to surgery.

L. For members capable of becoming pregnant, counseling to avoid pregnancy preoperatively and for at least 12 months postoperatively and until weight has been stabilized.

III. Repeat Surgeries
A. Repeat bariatric surgery is considered medically necessary for one of the following:
   1. To correct complications from a previous bariatric surgery, such as obstruction or strictures (could include conversion surgeries to LSG or RYGB for adults or adolescents; or BPD-DS for adults);
   2. Conversion from LAGB to a LSG, RYGB or BPD-DS; or revision of a primary procedure that has failed due to dilation of the gastric pouch when all of the following criteria are met:
      a. All criteria listed above for the initial bariatric procedure must be met again;
      b. Previous surgery for morbid obesity was at least 2 years prior to repeat procedure;
      c. Weight loss from the initial procedure was less than 50% of the member/enrollee's excess body weight at the time of the initial procedure;
      d. If the conversion is requested due to removal of an eroded laparoscopic adjustable band, at least two months have passed between the band removal and the subsequent bariatric procedure;
      e. Documented compliance with previously prescribed postoperative nutrition and exercise program. If non-compliant with postoperative regimen, member/enrollee will be required to take part in an established multidisciplinary bariatric program to meet all of the initial surgery criteria listed above;
      f. Supporting documentation from the provider should also include a clinical explanation of the circumstances as to why the procedure failed and if initial procedure failure was related to non-compliance with diet then why the requesting provider feels member/enrollee will be compliant with diet after repeat surgery.
   3. Conversion of sleeve gastrectomy to Roux-en-Y gastric bypass for the treatment of gastro-esophageal reflux disease (GERD) when anti-reflux medical therapy has been tried and failed.

B. Panniculectomy after bariatric surgery will be covered when medically necessary as determined by the following criteria:
   1. Member had bariatric surgery at least 18 months prior and the member’s weight has been stable for at least 6 months; and
   2. The Pannus is at or below the level of the pubic symphysis; and
   3. The pannus causes significant consequences as indicated by at least one of the following:
      ▪ Cellulities, other infections, skin ulcerations, or persistent dermatitis that has failed to respond to at least 3 months of non-surgical treatment; or
      ▪ Functional impairment such as interference with ambulation

IV. Contraindications for surgical weight loss procedures include:
A. Medically correctable causes of obesity;
B. Current or planned pregnancy within 12 to 18 months of the procedure;
C. Severe coagulopathy.

V. It is the policy of Louisiana Healthcare Connections that the following bariatric surgery procedures are considered investigational, because the medical literature indicates that studies have been inadequate to determine their efficacy and long-term outcomes:
   A. Distal gastric bypass (very long limb gastric bypass);
   B. Loop Gastric Bypass ("Mini-Gastric Bypass");
   C. Laparoscopic re-sleeve gastrectomy (LRSG) performed after the resulting gastric pouch is primarily too large or dilates after the original LSG;
   D. Fobi pouch;
   E. Laparoscopic greater curvature plication (Gastric Imbrication);
   F. LAP-BAND when BMI is 30 to 35 with or without comorbid conditions;
   G. AspireAssist;
   H. Endoscopic Suture Revisions post bariatric surgery;
   I. Single anastomosis duodenoileal bypass (SADI);
   J. Gastric plication/ Endoluminal vertical gastroplasty;
   K. Endoscopic gastrointestinal bypass devices (EGIBD (barrier devices));

VI. It is the policy of Louisiana Healthcare Connections that the following bariatric surgery procedures are considered not medically necessary, due to potential complications and a lack of positive outcomes:
   A. Biliopancreatic diversion (BPD) procedure (also known as the Scopinaro procedure);
   B. Jejunoileal bypass (jejuno-colic bypass);
   C. Vertical Banded Gastroplasty (VBG);
   D. Gastric balloon;
   E. Gastric pacing;
   F. Gastric wrapping.

Background
There is sufficient evidence in peer-reviewed medical literature to support the use of the above mentioned bariatric surgeries for the clinically obese individual. Persons with clinically severe obesity are at risk for increased mortality and multiple co-morbidities. These co-morbidities include hypertension, hypertrophic cardiomyopathy, hyperlipidemia, diabetes, cholelithiasis, obstructive sleep apnea, hypoventilation, degenerative arthritis and psychosocial impairments.

The majority of severely obese patients losing weight through non-operative methods alone regain all the weight lost over the next five years. Surgical treatment is the only proven method of achieving long term weight control for the morbidly obese. Eating behaviors after surgery improve dramatically due to the restricted size of the stomach allowing only small amounts of food to be taken in at a time.

The success of the bariatric surgery does rely on the motivation and dedication to the program of the patient. The patient must be able to participate in the treatment and long-term follow up required after surgery. Studies have shown that about 10% of patients may have unsatisfactory weight loss or regain much of the weight they have lost. This may occur due to frequent snacking on high-calorie foods or lack of exercise. Technical problems that may occur include a
stretched pouch due to overeating following surgery. Ensuring patients are motivated to lose weight can help prevent some of these issues.

Maximum weight loss usually occurs between 18 and 24 months postoperatively. The average weight loss at five years ranges from 48 to 74% after gastric bypass and 50 to 60% following gastric banding. Several studies have follow-up from 5-15 years with these patients maintaining weight loss of 50-60% of excess weight. The Lap Band is a small bracelet-like band placed around the top of the stomach to produce a small pouch about the size of a thumb. The size of the outlet is controlled by a circular balloon inside the band that can be inflated and deflated with saline solution through an access port placed under the skin. The more inflated the balloon, the narrower the opening and slower passage of food to the rest of the stomach.

Roux-en-Y gastric bypass (RYGB) creates a small stomach pouch, bypassing most of the stomach, duodenum, and upper intestine. Weight loss occurs through restriction of food intake and by decreasing the absorption of food by re-routing food directly from the pouch into the small intestine.

Biliopancreatic diversion with duodenal switch (BPD-DS) is a complex operation that includes 1) removing a large portion of the stomach to promote smaller meal sizes, 2) re-routing of food away from much of the small intestine to prevent partial absorption of food, and 3) re-routing of bile and other digestive juices that impair digestion. The operation bypasses most of the duodenum, but leaves a small portion for food and the absorption of some vitamins and minerals. BPD-DS produces significant weight loss, but has a greater risk of long-term complications due to decreased absorption of food, vitamins, and minerals.

There are both early and later complications associated with these operations. Early complications can include bleeding, infections, leaks from suture sites and blood clots. Strictures, hernias, and malnutrition, especially when not taking prescribed vitamins and minerals, are all late complications that can occur in addition to the above mentioned stretched pouch or separated stitches. A repeat surgery is at times required to repair some of these complications.

In an updated position statement on the role of bariatric surgery in class I obesity (BMI of 30.0–34.9 kg/m^2), the American Society for Metabolic and Bariatric Surgery (ASMBS) recommend patients with BMI 30 to 35 kg/m^2 and obesity-related co-morbidities who do not achieve substantial, durable weight loss and co-morbidity improvement with reasonable nonsurgical methods, bariatric surgery should be offered as an option for suitable individuals. In this population, surgical intervention should be considered after failure of nonsurgical treatments. Particularly given the presence of high-quality data in patients with type 2 diabetes, bariatric and metabolic surgery should be strongly considered for patients with BMI 30 to 35 kg/m^2 and type 2 diabetes. AGB, SG, and RYGB have been shown to be well-tolerated and effective treatments for patients with BMI 30 to 35 kg/m^2. Safety and efficacy of these procedures in low-BMI patients appear to be similar to results in patients with severe obesity. Currently, the best evidence for bariatric and metabolic surgery for patients with class I obesity and co-morbid conditions exists for patients in the 18 to 65 age group.33
Bariatric Surgery in Adolescents

Weight loss surgery has been performed in small groups of adolescents since the 1970s. Recent data has shown a significant increase in the rate since 2000. It is likely that we will continue to see a rise in the rate of adolescents undergoing weight loss surgery with the current pediatric obesity epidemic. Children and adolescents who are severely obese are at risk for the same mortality and co-morbidities as adults. These co-morbidities include hypertension, hypertrophic cardiomyopathy, hyperlipidemia, diabetes, cholelithiasis, obstructive sleep apnea, depression and impaired quality of life. In addition, children in the BMI category $\geq 35 \text{ kg/m}^2$ will almost always remain obese and 65% will have a BMI $\geq 40$ as an adult.

Changes in diet and physical activity must be attempted prior to weight loss surgery in adolescents. A multi-disciplinary, family-based approach should be undertaken to support a staged weight loss plan. However, studies suggest that dietary and behavioral interventions rarely result in significant and sustained weight loss in adolescents. This same multi-disciplinary and family approach must be taken when evaluating and planning for bariatric surgery in an adolescent.

The multi-disciplinary team should include an experienced bariatric surgeon, pediatric obesity specialist, nurse, dietician, and pediatric psychologist or psychiatrist. Additional sub-specialists must be readily available for evaluation of co-morbidities. The success of the bariatric surgery does rely on the motivation and dedication to the program of the patient and their family. The patient and family must be willing and able to participate in the treatment and long-term follow up required after surgery. The adolescent must show evidence of mature decision-making with appropriate understanding of the risks and benefits of surgery.

Current existing retrospective data on adolescent weight loss surgery demonstrate that bypass leads to clinically significant and durable decrease in weight loss and BMI. Studies have investigated LABG for the treatment of adolescent obesity, but it has fallen out of favor due to modest weight loss and high rates of revision and weight recidivism. Obesity-related diseases also improve or resolve after surgically induced weight loss in adolescents. There have not been enough studies to indicate what the long-term weight loss sustainability is in adolescents. Specific predictors of weight regain after bariatric surgery are still unknown.

Recently updated guidelines from the ASMBS on pediatric metabolic and bariatric surgery conclude that metabolic and bariatric surgery (MBS) is a proven, effective treatment for severe obesity disease in adolescents and should be considered standard of care. Treatment of severe obesity in adolescents clearly requires a multidisciplinary approach where MBS should not be consigned to the treatment of last resort. Rather, when considered appropriate and within the clinical best practice guidelines, MBS should be readily offered to adolescents with obesity to effectively reverse co-morbidities and achieve overall wellness. Prior weight loss attempts, Tanner stage, and bone age should not be barriers to definitive treatment.

Investigational Procedures

Long-limb or Distal Gastric Bypass for Superobesity: An RCT has recently been completed by Svanevik et al., but only perioperative outcomes have been reported thus far. Svanevik et al. found that in superobese patients with BMI between 50 and 60 kg/m(2), distal gastric bypass was
Associated with longer operating time and more severe complications resulting in reoperation than proximal gastric bypass. There is increased risk of adverse nutritional outcomes with longer limb gastric bypass. At this time the long-limb or distal gastric bypass for superobesity is considered investigational, until more long-term studies can be done which reflect better outcomes than existing procedures.

Loop Gastric Bypass (Mini Gastric Bypass, one-anastomosis gastric bypass): The mini gastric bypass has not been universally accepted due to higher rates of alkaline bile reflux and limited long-term research. More long-term research is needed to solidify mini gastric bypass surgery’s position as a viable bariatric surgery option.

Re-Sleeve Gastrectomy for Failed Laparoscopic Sleeve Gastrectomy: Iannelli et al. (2012) noted that laparoscopic sleeve gastrectomy (LSG) was rapidly accepted as a valuable bariatric procedure before its effectiveness on weight loss in the long-term is clearly demonstrated. The authors report a feasibility study including 13 patients undergoing a redo LSG for either progressive weight regain after initial weight loss of insufficient weight loss. AlSabah et al. describe 24 patients who underwent re-sleeve laparoscopic gastrectomy after an initial LSG. Compared to 12 patients that initially had LSG, which was converted to LRYGB, results were similar, with no significant differences in percent of excess weight loss at one year. They conclude that larger and longer follow-up studies are needed to verify results.

Fobi Pouch or Silastic® Ring: The Fobi Pouch bariatric operation for obesity is a combination of stomach reduction and gastric bypass. The Silastic ring is placed around the vertically constructed gastric pouch above the anastomosis between the pouch and the intestinal Roux limb. Possible long term nutritional deficiencies involve fat soluble vitamin deficiencies of Calcium, Iron, B12, and Folic Acid. Patients are placed on nutritional supplements for the rest of their lives, and yearly monitoring is needed. The Fobi Pouch gastric bypass takes about double the time that a vertical banded gastroplasty operation takes. There is limited research on the outcomes of the Fobi pouch versus other bariatric surgery procedures.

Gastric Imbrication: Fried et al. (2011) completed a 3-year RCT on the safety and efficacy of laparoscopic adjustable gastric banding with and without imbrication sutures. The results of the RCT have demonstrated that SAGB combined with a conservative approach to band adjustments and limited retrogastric dissection is effective and safe with and without imbrication sutures. Not using imbrication sutures results in significant benefits in operative speed with comparable clinical weight loss and intermediate term safety. Sharma et al. conducted a randomized, double blinded trial comparing LSG and laparoscopic gastric imbrication (LGI). They found no differences in weight, age, or BMI preoperatively at 6 months or 3 years between the 2 groups.

The AspireAssist System (AspireAssist) was FDA approved in 2016. It is a weight loss device comprised of an endoscopically placed percutaneous gastrostomy tube and an external device to facilitate drainage of about 30% of each meal consumed. It is meant to be used in conjunction with diet and exercise. Thompson et al. (2017) performed a 1-year RCT comparing results of 207 patients treated with AspireAssist. The treatment group (n=137) received AspireAssist and lifestyle counseling and the control group (n=70) received lifestyle counseling alone. Compared to the control group, those who received the AspireAssist and counseling lost more weight:
58.6% of participants in the AspireAssist group and 15.3% of participants in the Lifestyle Counseling group lost at least 25% of their excess body weight (P<0.001). Additionally, Noren et al. (2016) conducted a prospective observational study on 25 patients. By the end of the 2-year observation period only 15 patients were still in the study. They concluded that AspireAssist is an efficient and safe treatment for obesity. There is no research on AspireAssist versus other bariatric surgery procedures.

To enhance weight loss, the following endoscopic procedures have been attempted to promote restriction of the pouch or stoma. These revisions have included: sclerotherapy of the site using 6 to 30 mL of sodium morrhuate injected circumferentially; tissue plication systems to reduce the size of the gastrojejunostomy and the gastric pouch; revisional surgery using a tissue plication device known as StomaPhyX to reduce the pouch size; and application of the endoclip to reduce the size of the gastrojejunal anastomosis. There is a lack of long-term outcomes for endoscopic revisions post RYGB.

The single anastomosis duodenoileal bypass (SADI), also known as single-anastomosis duodenal switch (SADS) combines restrictive, malabsorptive, and probably hormonal mechanisms for weight loss. The sleeve is created first, and the duodenum is divided after the pylorus. SADI creates an anastomosis between the side of the distal ileum and the end of the sleeve-like gastric pouch/duodenum. Data evaluating this procedure is limited. Technical complexity and long-term nutritional deficiencies have limited its acceptance.\(^{16}\)

Endoluminal vertical gastroplasty/gastric plication is an endoscopic approach for suturing the stomach that offers the potential to perform gastric-restrictive procedures endoluminally. The anterior and posterior walls of the stomach are suctioned together, then held in place by either a stapler or T-fastener device to create a tube of stomach similar to the sleeve gastrectomy.

Endoscopic gastrointestinal bypass devices (EGBD) are barrier devices deployed to prevent luminal contents from being absorbed in the proximal small intestine (e.g., ValenTX, EndoBarrier). Data are still lacking about the longevity of these endobarriers and their outcomes once the barrier is removed.

**Not Medically Necessary Procedures**

Biliopancreatic Diversion (BPD) Procedure (Scopinaro procedure): The biliopancreatic diversion (BPD) is a malabsorptive procedure that was introduced as a solution to the high rates of liver failure resulting from bowel exclusion in the jejunoileal bypass. The procedure consists of a partial gastrectomy and gastroileostomy with a long segment of Roux limb and a short common channel, resulting in fat and starch malabsorption. BPD also has a restrictive component. The BPD/DS procedure differs from the BPD in the portion of the stomach that is removed, as well as preservation of the pylorus. This allows more forward flow of the contents of the biliopancreatic limb and avoids the complications of stasis that plagued the jejunoileal bypass (JIB). It is associated with fewer complications than BPD alone. BPD/DS is a complex procedure that is only performed at a few centers in the U.S.

Jejunoileal Bypass or Jejunoileal Intestinal Bypass (JIB): The jejunoileal bypass (also called the intestinal bypass) is performed by dividing the jejunum close to the ligament of Treitz and
connecting it a short distance proximal to the ileocecal valve, thereby diverting a long segment of small bowel, resulting in malabsorption. This procedure is no longer performed due to the high complication rate and frequent need for revisional surgery. Per the American Society for Metabolic & Bariatric Surgery, the JIB is no longer a recommended bariatric surgical procedure. The lessons learned from the JIB include the crucial importance of long-term follow-up and the dangers of a permanent, severe and global malabsorption.

Vertical Banded Gastroplasty (VBG): VBG has fallen out of favor as a restrictive procedure for severe obesity, due largely to the advantages of adjustable gastric banding. VBG requires division of the stomach or intestinal resection, while LAGB does not. In addition, the staples used in VBG may break down and cause weight regain, and VBG requires the use of prosthetic mesh that may increase the incidence of stomach stenosis. Thus, CMS says in their National Coverage Determination for Bariatric Treatment for Morbid Obesity that “VBG procedures are essentially no longer performed.”

Gastric Balloon: Previous endoscopic technologies used to treat obesity endoscopically, such as the gastric balloon, had limited exposure in the U.S. and were removed from the market because of associated complications, such as balloon deflation with migration and resultant small intestinal obstruction.

Gastric Pacing: A number of procedures have been investigated for weight loss surgery but have not been totally accepted by the surgical community. Gastric pacing has been performed in several trials but has not been shown to have any long-term effect and has been abandoned.

Gastric Wrapping: A gastric wrap is minimally invasive surgery and involves folding the stomach in on itself and then the edges are stitched to turn the stomach into a narrow tube therefore restricting the amount of food that can be consumed. As this surgery is very new and not widely offered. There is a paucity of peer-reviewed scientific literature on this procedure.

**Coding Implications**

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<table>
<thead>
<tr>
<th>CPT® Codes</th>
<th>Description</th>
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<tbody>
<tr>
<td>43644</td>
<td>Laparoscopy, surgical, gastric restrictive procedure; with gastric bypass and Roux-en-Y gastroenterostomy (roux limb 150 cm or less)</td>
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<tr>
<td>43645</td>
<td>Laparoscopy, surgical, gastric restrictive procedure; with gastric bypass and small intestine reconstruction to limit absorption</td>
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<tr>
<td>43770*</td>
<td>Laparoscopy, surgical, gastric restrictive procedure; placement of adjustable gastric restrictive device (eg, gastric band and subcutaneous port components)</td>
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<td>43771</td>
<td>Laparoscopy, surgical, gastric restrictive procedure; revision of adjustable gastric restrictive device component only</td>
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<td>43772</td>
<td>Laparoscopy, surgical, gastric restrictive procedure; removal of adjustable gastric restrictive device component only</td>
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<td>43773</td>
<td>Laparoscopy, surgical, gastric restrictive procedure; removal and replacement of adjustable gastric restrictive device component only</td>
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<td>43774</td>
<td>Laparoscopy, surgical, gastric restrictive procedure; removal of adjustable gastric restrictive device and subcutaneous port components</td>
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<td>43775</td>
<td>Laparoscopy, surgical, gastric restrictive procedure; longitudinal gastrectomy (ie, sleeve gastrectomy)</td>
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<td>43843</td>
<td>Gastric restrictive procedure, without gastric bypass, for morbid obesity; other than vertical-banded gastroplasty</td>
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<tr>
<td>43845</td>
<td>Gastric restrictive procedure with partial gastrectomy, pylorus-preserving duodenileostomy and ileoleostomy (50 to 100 cm common channel) to limit absorption (biliopancreatic diversion with duodenal switch)</td>
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<tr>
<td>43846</td>
<td>Gastric restrictive procedure, with gastric bypass for morbid obesity; with short limb (150 cm or less) Roux-en-Y gastroenterostomy</td>
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<td>43848*</td>
<td>Revision, open, of gastric restrictive procedure for morbid obesity, other than adjustable gastric restrictive device (separate procedure)</td>
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<td>43860</td>
<td>Revision of gastrojejunal anastomosis (gastrojejunostomy) with reconstruction, with or without partial gastrectomy or intestine resection; without vagotomy</td>
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<tr>
<td>43865</td>
<td>Revision of gastrojejunal anastomosis (gastrojejunostomy) with reconstruction, with or without partial gastrectomy or intestine resection; with vagotomy</td>
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<tr>
<td>43881</td>
<td>Implantation or replacement of gastric neurostimulator electrodes, antrum, open</td>
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*Some codes may be used for both medically necessary and not medically necessary indications.

### CPT codes that do not support medical necessity

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<td>43647</td>
<td>Laparoscopy, surgical; implantation or replacement of gastric neurostimulator electrodes, antrum</td>
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<td>43842</td>
<td>Gastric restrictive procedure, without gastric bypass, for morbid obesity; vertical-banded gastroplasty</td>
</tr>
<tr>
<td>43847</td>
<td>Gastric restrictive procedure, with gastric bypass for morbid obesity; with small intestine reconstruction to limit absorption</td>
</tr>
<tr>
<td>43881</td>
<td>Implantation or replacement of gastric neurostimulator electrodes, antrum, open</td>
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</table>
**CPT® Codes** | **Description**
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64590 | Insertion or replacement of peripheral or gastric neurostimulator pulse generator or receiver, direct or inductive coupling

**HCPCS Codes** | **Description**
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S2083 | Adjustment of gastric band diameter via subcutaneous port by injection or aspiration of saline

+ Indicates a code requiring an additional character

**ICD-10 Codes** | **Description**
--- | ---
E10.10-E13.9 | Diabetes Mellitus
E66.01-E66.9 | Overweight and obesity
E74.00-E74.9 | Other disorders of carbohydrate metabolism
E78.00-E78.9 | Disorders of lipoprotein metabolism
G47.00-G47.9 | Sleep disorder
G93.2 | Benign intracranial hypertension
I10.0-I15.9 | Hypertensive diseases
I20.0-I20.9 | Angina pectoris
I25.10-I25.9 | Chronic ischemic heart disease
I27.0-I27.9 | Other pulmonary heart disease
I42.0-I42.9 | Cardiomyopathy
I50.1-I50.9 | Heart failure
I67.0-I67.9 | Other cerebrovascular diseases
I83.001-I83.93 | Varicose veins of lower extremities
K21.00-K21.9 | Gastro-esophageal reflux disease
K31.1 | Adult hypertrophic pyloric stenosis
K31.6 | Fistula of stomach and duodenum
K56.50-K56.52 | Intestinal adhesions [bands] with obstruction (post-procedural) (post-infection)
K68.11- K68.9 | Disorders of retroperitoneum
K91.0-K91.89 | Intraoperative and postprocedural complications and disorders, not elsewhere classified
M16.0-M16.9 | Osteoarthritis of hip
M17.0-M17.9 | Osteoarthritis of knee
M19.171-M19.179 | Post-traumatic osteoarthritis, ankle and foot
M19.271-M19.279 | Secondary osteoarthritis, ankle and foot
M24.00-M24.9 | Other specific joint derangements
M25.80 - M25.879 | Other specified joint disorders
M50.00-M50.93 | Cervical disc disorders
ICD-10 Codes | Description
--- | ---
M51.04-M51.9 | Thoracic, thoracolumbar, and lumbosacral intervertebral disc disorders
M53.0-M53.9 | Other and unspecified dorsopathies, not elsewhere classified
M54.00 - M54.9 | Dorsalgia
R06.00-R06.9 | Dyspnea
R09.01-R09.89 | Other symptoms and signs involving the circulatory and respiratory systems
R26.0-R26.9 | Abnormalities of gait and mobility
T81.10X+- | Complications of procedures, not elsewhere classified
T81.9XX+ | Other mechanical complication of gastrointestinal prosthetic devices, implants and grafts
T85.590+- | Complications of procedures, not elsewhere classified
T85.598+ | Other mechanical complication of gastrointestinal prosthetic devices, implants and grafts

Reviews, Revisions, and Approvals

| Converted corporate to local policy. | 2/2021 |

References


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32. Xanthakos SA, Inge TH. Surgical management of severe obesity in adolescents. In: UpToDate, Jones D, Heyman MB (Ed), UpToDate, Waltham, MA. Accessed 05/29/2020


**Important Reminder**

This clinical policy has been developed by appropriately experienced and licensed health care professionals based on a review and consideration of currently available generally accepted standards of medical practice; peer-reviewed medical literature; government agency/program approval status; evidence-based guidelines and positions of leading national health professional organizations.
organizations; views of physicians practicing in relevant clinical areas affected by this clinical policy; and other available clinical information. LHCC makes no representations and accepts no liability with respect to the content of any external information used or relied upon in developing this clinical policy. This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved.

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