

**EFFECTIVE DATE:** 11|04|14

**POLICY LAST UPDATED:** 08|03|2015

## OVERVIEW

Surgery for obesity, termed bariatric surgery, is a treatment for morbid obesity in patients who fail to lose weight with conservative measures. There are numerous different surgical techniques available. These different techniques have heterogenous mechanisms of action, with varying degrees of gastric restriction that creates a small gastric pouch, malabsorption of nutrients, and metabolic changes that result from gastric and intestinal surgery. This policy documents the procedures that are considered not medically necessary.

Note: For covered bariatric surgery, please refer to the policy noted in the related policy section.

## MEDICAL CRITERIA

### BlueCHiP for Medicare and Commercial Products

Not applicable

## PRIOR AUTHORIZATION

Not applicable

## POLICY STATEMENT

### Blue CHiP for Medicare

The bariatric surgery procedures listed below are considered not medically necessary because there is insufficient evidence in the published, peer-reviewed scientific literature to demonstrate its effectiveness.

- Open adjustable gastric banding;
- Open sleeve gastrectomy;
- Open and laparoscopic vertical banding gastroplasty
- Gastric balloon for treatment of obesity
- Intestinal bypass

Medicare policy is developed separately from BCBSRI policy. Medicare policy incorporates consideration of governmental regulations from the Centers for Medicare and Medicaid Services (CMS), such as national coverage determinations or local coverage determinations. In addition to benefit differences, CMS may reach different conclusions regarding the scientific evidence than does BCBSRI. Medicare and BCBSRI policies may differ. However, BlueCHiP for Medicare members must be offered, at least, the same services that Medicare offers.

### Commercial Products

The bariatric surgery procedures listed below are considered not medically necessary for the treatment of morbid obesity in adults who have failed weight loss by conservative measures because there is insufficient evidence in the published, peer-reviewed scientific literature to demonstrate its effectiveness.

- Vertical-banded gastroplasty
- Gastric bypass using a Billroth II type of anastomosis (mini-gastric bypass)
- Biliopancreatic bypass without duodenal switch
- Long-limb gastric bypass procedure (i.e., >150 cm)

- Two-stage bariatric surgery procedures (e.g., sleeve gastrectomy as initial procedure followed by biliopancreatic diversion at a later time)
- Endoscopic procedures (e.g., insertion of the StomaphyX™ device) as a primary bariatric procedure or as a revision procedure (i.e., to treat weight gain after bariatric surgery to remedy large gastric stoma or large gastric pouches)
- Laparoscopic gastric plication

## COVERAGE

Benefits may vary between groups/contracts. Please refer to the appropriate Evidence of Coverage or Subscriber Agreement for limitations of benefits/coverage when services are not medically necessary.

## BACKGROUND

Bariatric surgery is performed for the treatment of morbid (clinically severe) obesity. Morbid obesity is defined as a body mass index (BMI) greater than 40 kg/m<sup>2</sup> or a BMI greater than 35 kg/m<sup>2</sup> with associated complications including, but not limited to, diabetes, hypertension, obstructive sleep apnea, coronary artery disease, or hypertension for which these complications or diseases are not controlled by best practice medical management. Morbid obesity results in a very high risk for weight-related complications, such as diabetes, hypertension, obstructive sleep apnea, and various types of cancers (for men: colon, rectum, and prostate; for women: breast, uterus, and ovaries), and a shortened life span. A morbidly obese man at age 20 can expect to live 13 years less than his counterpart with a normal BMI, which equates to a 22% reduction in life expectancy.

The first treatment of morbid obesity is dietary and lifestyle changes. Although this strategy may be effective in some patients, only a few morbidly obese individuals can reduce and control weight through diet and exercise. The majority of patients find it difficult to comply with these lifestyle modifications on a long-term basis.

When conservative measures fail, some patients may consider surgical approaches. A 1991 National Institutes of Health (NIH) Consensus Conference defined surgical candidates as those patients with a BMI\* of greater than 40 kg/m<sup>2</sup>, or greater than 35 kg/m<sup>2</sup> in conjunction with severe comorbidities such as cardiopulmonary complications or severe diabetes. (\*See Policy Guidelines on how to calculate BMI.)

Intragastric balloon is unproven as a treatment for obesity. Further studies are needed to determine the safety and efficacy of intragastric balloon as a treatment option for obesity. Adverse effects associated with the intragastric balloon include gastric erosion, reflux, and obstruction (Fernandes, 2007). Currently, the available evidence in the published, peer-reviewed scientific literature is insufficient to establish the safety and efficacy of this procedure.

Vertical-banded gastroplasty was formerly one of the most common gastric restrictive procedures performed in the United States, but has now been essentially replaced by other restrictive procedures due to high rates of revisions and reoperations. In this procedure, the stomach is segmented along its vertical axis. To create a durable reinforced and rate-limiting stoma at the distal end of the pouch, a plug of stomach is removed, and a propylene collar is placed through this hole and then stapled to itself. Because the normal flow of food is preserved, metabolic complications are uncommon. Complications include esophageal reflux, dilation, or obstruction of the stoma, with the latter two requiring reoperation. Dilation of the stoma is a common reason for weight regain. Vertical-banded gastroplasty may be performed using an open or laparoscopic approach.

Gastric bypass using a Billroth II type of anastomosis (mini-gastric bypass): Recently, a variant of the gastric bypass, called the mini-gastric bypass, has been popularized. Using a laparoscopic approach, the stomach is segmented, similar to a traditional gastric bypass, but instead of creating a Roux-en-Y anastomosis, the

jejunum is anastomosed directly to the stomach, similar to a Billroth II procedure. This unique aspect of this procedure is not based on its laparoscopic approach but rather the type of anastomosis used. It should also be noted that CPT code 43846 explicitly describes a Roux-en-Y gastroenterostomy, which is not used in the mini-gastric bypass.

Biliopancreatic bypass (BPB) without duodenal switch:

Biliopancreatic bypass procedure (also known as the Scopinaro procedure) (CPT code 43847- gastric restrictive procedure, with gastric bypass for morbid obesity; with small intestine reconstruction to limit absorption)

Developed and used extensively in Italy, BPB was designed to address some of the drawbacks of the original intestinal bypass procedures that have been abandoned due to unacceptable metabolic complications. Many of the complications were thought to be related to bacterial overgrowth and toxin production in the blind, bypassed segment. In contrast, BPB consists of a subtotal gastrectomy and diversion of the biliopancreatic juices into the distal ileum by a long Roux-en-Y procedure. The procedure consists of the following components:

- A distal gastrectomy induces a temporary early satiety and/or the dumping syndrome in the early postoperative period, both of which limit food intake.
- A 200-cm long “alimentary tract” consists of 200 cm of ileum connecting the stomach to a common distal segment.
- A 300- to 400-cm “biliary tract” connects the duodenum, jejunum, and remaining ileum to the common distal segment.
- A 50- to 100-cm “common tract” is where food from the alimentary tract mixes with biliopancreatic juices from the biliary tract. Food digestion and absorption, particularly of fats and starches, are therefore limited to this small segment of bowel, i.e., creating a selective malabsorption. The length of the common segment will influence the degree of malabsorption.
- Because of the high incidence of cholelithiasis associated with the procedure, patients typically undergo an associated cholecystectomy.

Many potential metabolic complications are related to biliopancreatic bypass, including most prominently, iron deficiency anemia, protein malnutrition, hypocalcemia, and bone demineralization. Protein malnutrition may require treatment with total parenteral nutrition. In addition, there have been several case reports of liver failure resulting in death or liver transplant.

Long-Limb Gastric Bypass (le, >150 cm) (CPT code 43847 - Gastric restrictive procedure with gastric bypass for morbid obesity; with small intestine reconstruction to limit absorption):

Recently, variations of gastric bypass procedures have been described, consisting primarily of long-limb Roux-en-Y procedures, which vary in the length of the alimentary and common limbs. For example, the stomach may be divided with a long segment of the jejunum (instead of ileum) anastomosed to the proximal gastric stump, creating the alimentary limb. The remaining pancreaticobiliary limb, consisting of stomach remnant, duodenum, and length of proximal jejunum, is then anastomosed to the ileum, creating a common limb of variable length in which the ingested food mixes with the pancreaticobiliary juices.

While the long alimentary limb permits absorption of most nutrients, the short common limb primarily limits absorption of fats. The stomach may be bypassed in a variety of ways, i.e., either by resection or stapling along the horizontal or vertical axis. Unlike the traditional gastric bypass, which is essentially a gastric restrictive procedure, these very long-limb Roux-en-Y gastric bypasses combine gastric restriction with some element of malabsorptive procedure, depending on the location of the anastomoses. Note that CPT code for gastric bypass (43846) explicitly describes a short limb (<150 cm) Roux-en-Y gastroenterostomy, and thus would not apply to long-limb gastric bypass.

Two-stage procedure:

The evidence on the comparative efficacy of different bariatric surgery approaches consists largely of low-quality evidence, with a lack of long-term, high-quality RCTs. Compared with gastric bypass, the evidence is sufficient to conclude that laparoscopic adjustable gastric banding is associated with lower short-term complications and lower medium- to long-term weight loss. The evidence is also sufficient to conclude that sleeve gastrectomy has similar or lower short-term complications, with medium- to long-term weight loss that is somewhat less than for gastric bypass. The evidence on other types of bariatric surgery procedures is insufficient to form conclusions on the impact on health outcomes. For biliopancreatic bypass, the weight loss is similar or greater than gastric bypass but the complications rates, especially for nutritional complications, may also be higher. The evidence base for other types of procedures is insufficient to form conclusions.

Laparoscopic Gastric Plication (no specific CPT code):

Laparoscopic gastric plication is a bariatric surgery procedure that involves laparoscopic placement of sutures over the greater curvature (laparoscopic greater curvature plication) or anterior gastric region (laparoscopic anterior curvature plication) to create a tube-like stomach. The procedure involves two main steps, mobilization of the greater curvature of the stomach and suture plication of the stomach for achieving gastric restriction, but specifics of the technique are not standardized.

Endoscopic procedures (e.g., insertion of the StomaphyX™ device) as a primary bariatric procedure or as a revision procedure (i.e., to treat weight gain after bariatric surgery to remedy large gastric stoma or large gastric pouches):

Some of these procedures use devices that are also being evaluated for endoscopic treatment of gastroesophageal reflux (GERD) (policy No. 2.01.38). The published data concerning use of these devices for treatment of regained weight is quite limited. Published case series have reported results using a number of different devices and procedures (including sclerosing injections) as treatment for this condition. The largest series found involved 28 patients treated with a sclerosing agent (sodium morrhuate). (60) Reported trials that used one of the suturing devices had fewer than 10 patients. For example, Herron et al. reported on a feasibility study in animals. (61) Thompson et al. reported on a pilot study with changes in anastomotic diameter and weight loss in 8 patients who had weight regain and dilated gastrojejunal anastomoses after RYGB. (62) No comparative trials were identified; comparative trials are important because of the known association between an intervention and short-term weight loss. The StomaphyX™ device, which has been used in this approach, was cleared by the FDA through the 510(k) process. It was determined to be equivalent to the EndoCinch™ system, which has 510(k) marketing clearance for endoscopic suturing for gastrointestinal tract surgery. In summary, the published scientific literature on use of these devices in patients who regain weight after bariatric surgery is very limited. No comparative studies were identified. These endoscopic procedures are considered investigational.

Bariatric Surgery in Patients with a BMI less than 35 kg/m:

Limited evidence is available on bariatric surgery in patients with a body mass index (BMI) of less than 35 kg/m<sup>2</sup>. Case series report a high rate of remission of diabetes in undergoing gastric bypass surgery, and this indication was judged to meet the TEC criteria in 2012. However, bariatric surgery for diabetes in patients with a BMI less than 35 is not currently considered standard of care and is not supported in current specialty society guidelines. For patients without diabetes, there is limited evidence on outcomes of surgery and no evidence that health outcomes are improved. As a result, bariatric surgery for patients with a BMI less than 35 is investigational.

The evidence on other types of bariatric surgery procedures is insufficient to form conclusions on the impact on health outcomes. For biliopancreatic bypass, the weight loss is similar or greater than gastric bypass but the complications rates, especially for nutritional complications, may also be higher. The evidence base for other types of procedures is insufficient to form conclusions.

## **CODING**

### **BlueCHiP for Medicare and Commercial Products**

There are no specific CPT codes for the not medically necessary indications listed in this policy. Claims should be filed using the unlisted CPT code

**43659**

**43999**

The code listed below is not medically necessary:

**43842**

The following code is not separately reimbursed:

**S2083:** Adjustment of gastric band diameter via subcutaneous port by injection or aspiration of saline

#### **RELATED POLICIES**

Preauthorization via Web-Based Tool for Procedures

#### **PUBLISHED**

Provider Update, October 2015

Provider Update, January 2015

#### **REFERENCES**

1. August GP, Caprio S, Fennoy I, et al. Prevention and treatment of pediatric obesity: an endocrine society clinical practice guideline based on expert opinion. *J Clin Endocrinol Metab.* Dec 2008;93(12):4576-4599. PMID 18782869
2. Institute for Clinical Systems Improvement. Prevention and Management of Obesity (Mature Adolescents and Adults). 2009; [http://www.icsi.org/obesity/obesity\\_3398.html](http://www.icsi.org/obesity/obesity_3398.html). Accessed August 6, 2014.
3. Aikenhead A, Lobstein T, Knai C. Review of current guidelines on adolescent bariatric surgery. *Clinical Obesity.* 2011;1:3-11.
4. Kohn GP, Price RR, DeMeester SR, et al. Guidelines for the management of hiatal hernia. *Surg Endosc.* Dec 2013;27(12):4409-4428. PMID 24018762
5. NIH conference. Gastrointestinal surgery for severe obesity. Consensus Development Conference Panel. *Ann Intern Med.* Dec 15 1991;115(12):956-961. PMID 1952493
6. Association; BCBS, Center. TE. TEC Special Report: The relationship between weight loss and changes in morbidity following bariatric surgery for morbid obesity. . TEC Assessments. 2003;18(Tab 18). PMID
7. Santry HP, Gillen DL, Lauderdale DS. Trends in bariatric surgical procedures. *JAMA.* Oct 19 2005;294(15):1909- 1917. PMID 16234497
8. O'Brien PE, Sawyer SM, Laurie C, et al. Laparoscopic adjustable gastric banding in severely obese adolescents: a randomized trial. *JAMA.* Feb 10 2010;303(6):519-526. PMID 20145228
9. Sjostrom L, Narbro K, Sjostrom CD, et al. Effects of bariatric surgery on mortality in Swedish obese subjects. *N Engl J Med.* Aug 23 2007;357(8):741-752. PMID 17715408
10. Scopinaro N, Papadia F, Marinari G, et al. Long-term control of type 2 diabetes mellitus and the other major components of the metabolic syndrome after biliopancreatic diversion in patients with BMI < 35 kg/m<sup>2</sup>. *Obes Surg.* Feb 2007;17(2):185-192. PMID 17476869
11. Sjostrom CD, Lissner L, Wedel H, et al. Reduction in incidence of diabetes, hypertension and lipid disturbances after intentional weight loss induced by bariatric surgery: the SOS Intervention Study. *Obes Res.* Sep 1999;7(5):477-484. PMID 10509605

12. Sjoström L, Lindroos AK, Peltonen M, et al. Lifestyle, diabetes, and cardiovascular risk factors 10 years after bariatric surgery. *N Engl J Med*. Dec 23 2004;351(26):2683-2693. PMID 15616203
13. Torgerson JS, Sjoström L. The Swedish Obese Subjects (SOS) study--rationale and results. *Int J Obes Relat Metab Disord*. May 2001;25 Suppl 1:S2-4. PMID 11466577
14. Courcoulas AP, Christian NJ, Belle SH, et al. Weight change and health outcomes at 3 years after bariatric surgery among individuals with severe obesity. *JAMA*. Dec 11 2013;310(22):2416-2425. PMID 24189773
15. Buchwald H, Avidor Y, Braunwald E, et al. Bariatric surgery: a systematic review and meta-analysis. *JAMA*. Oct 13 2004;292(14):1724-1737. PMID 15479938
16. Maggard MA, Shugarman LR, Suttorp M, et al. Meta-analysis: surgical treatment of obesity. *Ann Intern Med*. Apr 5 2005;142(7):547-559. PMID 15809466
17. Colquitt JL, Pickett K, Loveman E, et al. Surgery for weight loss in adults. *Cochrane Database Syst Rev*. 2014;8:CD003641. PMID 25105982
18. Gloy VL, Briel M, Bhatt DL, et al. Bariatric surgery versus non-surgical treatment for obesity: a systematic review and meta-analysis of randomised controlled trials. *BMJ*. 2013;347:f5934. PMID 24149519
19. Chang SH, Stoll CR, Song J, et al. The effectiveness and risks of bariatric surgery: an updated systematic review and meta-analysis, 2003-2012. *JAMA Surg*. Mar 2014;149(3):275-287. PMID 24352617
20. Wilhelm SM, Young J, Kale-Pradhan PB. Effect of bariatric surgery on hypertension: a meta-analysis. *Ann Pharmacother*. Jun 2014;48(6):674-682. PMID 24662112
21. Ricci C, Gaeta M, Rausa E, et al. Early impact of bariatric surgery on type II diabetes, hypertension, and hyperlipidemia: a systematic review, meta-analysis and meta-regression on 6,587 patients. *Obes Surg*. Apr 2014;24(4):522-528. PMID 24214202
22. Cuspidi C, Rescaldani M, Tadic M, et al. Effects of bariatric surgery on cardiac structure and function: a systematic review and meta-analysis. *Am J Hypertens*. Feb 2014;27(2):146-156. PMID 24321879
23. Kwok CS, Pradhan A, Khan MA, et al. Bariatric surgery and its impact on cardiovascular disease and mortality: a systematic review and meta-analysis. *Int J Cardiol*. Apr 15 2014;173(1):20-28. PMID 24636546
24. Puzziferri N, Roshek TB, 3rd, Mayo HG, et al. Long-term follow-up after bariatric surgery: a systematic review. *JAMA*. Sep 3 2014;312(9):934-942. PMID 25182102
25. Balsiger BM, Poggio JL, Mai J, et al. Ten and more years after vertical banded gastroplasty as primary operation for morbid obesity. *J Gastrointest Surg*. Nov-Dec 2000;4(6):598-605. PMID 11307094
26. Miller K, Pump A, Hell E. Vertical banded gastroplasty versus adjustable gastric banding: prospective long-term follow-up study. *Surg Obes Relat Dis*. Jan-Feb 2007;3(1):84-90. PMID 17116427
27. Hall JC, Watts JM, O'Brien PE, et al. Gastric surgery for morbid obesity. The Adelaide Study. *Ann Surg*. Apr 1990;211(4):419-427. PMID 2181950
28. Sugerman HJ, Starkey JV, Birkenhauer R. A randomized prospective trial of gastric bypass versus vertical banded gastroplasty for morbid obesity and their effects on sweets versus non-sweets eaters. *Ann Surg*. Jun 1987;205(6):613-624. PMID 3296971



29. MacLean LD, Rhode BM, Forse RA. Late results of vertical banded gastroplasty for morbid and super obesity. *Surgery*. Jan 1990;107(1):20-27. PMID 2296754
30. Hsieh T, Zurita L, Grover H, et al. 10-year outcomes of the vertical transected gastric bypass for obesity: a systematic review. *Obes Surg*. Mar 2014;24(3):456-461. PMID 24379176
31. Griffen WO. Gastric bypass. In: . In: Griffen WO PKE, ed. *Surgical Management of Morbid Obesity*. : Marcel Dekker, Inc, New York; 1987:27-45.
32. Pories WJ, Swanson MS, MacDonald KG, et al. Who would have thought it? An operation proves to be the most effective therapy for adult-onset diabetes mellitus. *Ann Surg*. Sep 1995;222(3):339-350; discussion 350-332. PMID 7677463
33. Rutledge R. The mini-gastric bypass: experience with the first 1,274 cases. *Obes Surg*. Jun 2001;11(3):276-280. PMID 11433900
34. Brethauer SA, Hammel JP, Schauer PR. Systematic review of sleeve gastrectomy as staging and primary bariatric procedure. *Surg Obes Relat Dis*. Jul-Aug 2009;5(4):469-475. PMID 19632646
35. Trastulli S, Desiderio J, Guarino S, et al. Laparoscopic sleeve gastrectomy compared with other bariatric surgical procedures: a systematic review of randomized trials. *Surg Obes Relat Dis*. Sep-Oct 2013;9(5):816-829. PMID 23993246
36. Li JF, Lai DD, Ni B, et al. Comparison of laparoscopic Roux-en-Y gastric bypass with laparoscopic sleeve gastrectomy for morbid obesity or type 2 diabetes mellitus: a meta-analysis of randomized controlled trials. *Can J Surg*. Dec 2013;56(6):E158-164. PMID 24284156
37. Zhang Y, Ju W, Sun X, et al. Laparoscopic Sleeve Gastrectomy Versus Laparoscopic Roux-En-Y Gastric Bypass for Morbid Obesity and Related Comorbidities: A Meta-Analysis of 21 Studies. *Obes Surg*. Aug 5 2014. PMID 25092167
38. Himpens J, Dapri G, Cadiere GB. A prospective randomized study between laparoscopic gastric banding and laparoscopic isolated sleeve gastrectomy: results after 1 and 3 years. *Obes Surg*. Nov 2006;16(11):1450-1456. PMID 17132410 Section: Surgery Subsection: Original Policy Date: July 1996 Page: 35 © 2014 Blue Cross Blue Shield Association. Reproduction without prior authorization is prohibited. MPRM 7.01.47 Bariatric Surgery
39. Karamanakos SN, Vagenas K, Kalfarentzos F, et al. Weight loss, appetite suppression, and changes in fasting and postprandial ghrelin and peptide-YY levels after Roux-en-Y gastric bypass and sleeve gastrectomy: a prospective, double blind study. *Ann Surg*. Mar 2008;247(3):401-407. PMID 18376181

[CLICK THE ENVELOPE ICON BELOW TO SUBMIT COMMENTS](#)

This medical policy is made available to you for informational purposes only. It is not a guarantee of payment or a substitute for your medical judgment in the treatment of your patients. Benefits and eligibility are determined by the member's subscriber agreement or member certificate and/or the employer agreement, and those documents will supersede the provisions of this medical policy. For information on member-specific benefits, call the provider call center. If you provide services to a member which are determined to not be medically necessary (or in some cases medically necessary services which are non-covered benefits), you may not charge the member for the services unless you have informed the member and they have agreed in writing in advance to continue with the treatment at their own expense. Please refer to your participation agreement(s) for the applicable provisions. This policy is current at the time of publication; however, medical practices, technology, and knowledge are constantly changing. BCBSRI reserves the right to review and revise this policy for any reason and at any time, with or without notice. Blue Cross & Blue Shield of Rhode Island is an independent licensee of the Blue Cross and Blue Shield Association.

