

MEDICAL POLICY



SUBJECT: SURGICAL MANAGEMENT OF OBESITY	EFFECTIVE DATE: 05/18/00 REVISED DATE: 03/21/02, 02/20/03, 10/15/03, 11/18/04, 08/18/05, 04/20/06, 11/16/06, 11/15/07, 12/18/08, 01/21/10, 12/16/10, 10/20/11, 12/20/12, 11/21/13, 12/18/14, 11/19/15, 10/20/16, 4/20/17, 03/15/18, 08/16/17
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<ul style="list-style-type: none">• <i>If a product excludes coverage for a service, it is not covered, and medical policy criteria do not apply.</i>• <i>If a commercial product (including an Essential Plan product) or a Medicaid product covers a specific service, medical policy criteria apply to the benefit.</i>• <i>If a Medicare product covers a specific service, and there is no national or local Medicare coverage decision for the service, medical policy criteria apply to the benefit.</i>	

POLICY STATEMENT:

- I. Based upon our criteria and assessment of the peer-reviewed literature, the surgical treatment of morbid obesity by *open or laparoscopic Roux-en-Y gastric bypass, duodenal switch procedure (biliopancreatic diversion), and sleeve gastrectomy* have been medically proven to improve health outcomes and are therefore **medically appropriate** for selected patients. Patients must meet all of the criteria:
 - A. Patients must be morbidly obese, which is defined as either having a BMI greater than or equal to 40 kg/m² or having a BMI greater than or equal to 35 kg/m² and existing comorbid condition(s) (e.g., hypertensive cardiovascular disease, coronary heart disease, pulmonary hypoventilation, hypertension, hypercholesterolemia, dyslipidemias, diabetes, sleep apnea, degenerative arthritis of weight-bearing joints, or other weight related arthropathies, and metabolic syndrome). Documentation of the comorbid existing medical condition(s) must be submitted by the primary care physician.
 - B. The condition of morbid obesity must be of at least 5 years duration.
 - C. A letter of support from the physician currently providing primary care to the member and who is familiar with his/her attempts at weight reduction, medical history and current health status (including obesity issues) is also necessary for the review process.
 - D. History of rigorous attempts at weight reduction.
 1. There must be written evidence of a weight loss history, either by the bariatric surgeon, primary care physician or nutritionist. This documentation should include the name of the weight loss program, length of participation in the program and any weight loss achieved. At least one program must have been a supervised weight loss program;
 2. Weight loss attempts need not be continuous, but a minimum total of six months is required.
 - a. If the patient has had no previous attempts at medical weight loss, participation for a minimum of six months in a preoperative bariatric surgery weight loss program is required.
 - b. If past prior attempts of weight loss are remote (greater than 5 years), then the patient is required to participate, for a minimum of six months in a preoperative bariatric surgery weight loss program.
 - E. There must be no significant liver, kidney, or gastrointestinal disease present. The presence of non-alcoholic steatohepatitis or “fatty liver”, which is associated with morbidly obese patients, would not be considered significant liver disease in this instance.
 - F. Treatable metabolic causes for obesity (e.g., adrenal or thyroid disorders) have been addressed.
 - G. Patients with a history of alcohol or substance abuse will not be considered unless there is a record of at least six months of abstinence. If there has been six months of abstinence, this condition must be addressed in a psychiatric consultation.
 - H. Patients must be screened by their physician for major psychopathology. All patients who have current symptoms which concern the physician, or who have had a psychiatric hospitalization must have a psychiatric *evaluation*. The psychiatric evaluation *should* be performed by a psychiatrist familiar with the implications of

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weight reduction surgery. If psychiatrists with this expertise are not available, an evaluation by a clinical psychologist familiar with the implications of weight reduction surgery is also acceptable. A psychiatrist or clinical psychologist who is providing ongoing care for the patient may also provide this evaluation. If the patient already has an established psychiatric provider, that provider (e.g., psychiatrist or clinical psychologist) must provide a second letter of support for the proposed surgery. Psychological *testing* as screening tool or as part of the psychological evaluation prior to bariatric surgery is considered not medically necessary.

- II. Based upon our criteria and assessment of peer-reviewed literature, the surgical management of morbid obesity by *laparoscopic adjustable gastric banding* (e.g., LAP BAND, Realize™) is considered **medically appropriate** in the following circumstances:
 - A. The patient must meet all the requirements listed above in Policy Statement I, A-H; and
 - B. The dietary history does not include a large consumption of high caloric liquids (e.g., milk shakes) or sweets; and
 - C. The patient has no significant history of esophageal or gastric disease (*please note contraindications to adjustable gastric banding listed in the rationale section*); and
 - D. The patient must participate in a pre-operative bariatric program that requires a 5% weight loss to demonstrate commitment to behavioral and dietary changes. The 5% weight loss will be measured from the date of the patient's initial visit to the bariatric surgeon to the date of the request for pre-authorization of the adjustable gastric banding procedure.
- III. Based upon our criteria and assessment of peer reviewed literature, although the supportive literature is limited, surgical procedures for the management of obesity for *patients between 16-18* will be considered medically necessary if the patient meets all the criteria in Policy Statements I and II including history of rigorous attempts at weight reduction as noted in Policy statement I. D. of at least one year for this age group.
- IV. Based upon our criteria and assessment of peer reviewed literature, there is insufficient information to support use of surgical procedures for the management of obesity for *patients under age 16*. Therefore, surgery for obesity is considered **investigational** for this age group.
- V. Based upon our criteria and assessment of the peer-reviewed literature, the following procedures for the primary surgical treatment of morbid obesity have not been medically proven to improve health outcomes and therefore are considered **investigational**:
 - A. Aspiration therapy (e.g., AspireAssist device);
 - B. Laparoscopic gastric plication;
 - C. *Mini-gastric bypass* (also called *loop gastric by-pass*);
 - D. Single anastomosis duodenoileal bypass with sleeve gastrectomy (SADI-S);
 - E. Stomach intestine pylorus sparing surgery (SIPS); and
 - F. Transoral gastroplasty or endoscopic/endoluminal procedures (e.g., Restorative Obesity Surgery, Endoluminal or ROSE, TOGA System, StomaphyX, EndoCinch, Overstitch device, Endobarrier, intragastric balloon insertion).
- VI. *Surgical revisions* are considered **medically appropriate** for complications, such as malabsorption/malnutrition, obstruction, staple disruption, or stricture following the primary procedure. (*Please see Guidelines section, #IV*).
- VII. A *revision or removal of a laparoscopic adjustable gastric band* is considered **medically necessary** for complications or for a technical failure. Examples of laparoscopic adjustable gastric banding complications reported in the literature that may warrant revision, removal or conversion to another procedure include, but are not limited to, band slippage, band erosion, infection, esophageal dilation, dysphagia, and heartburn/reflux. Technical failures of LAGB include (but are not limited to) a displaced band, port dislocation, too tight a band creating food passage problems, band intolerance (e.g., pain, vomiting), and port and/or catheter leakage.

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- VIII. A *revision or conversion* to another medically appropriate procedure because of unsatisfactory weight loss due to technical failure of the primary bariatric procedure such as pouch dilation or an initial pouch size that is too large (an ideal initial pouch size is approximately 20 cc) is considered **medically appropriate** if there is documentation regarding all of the following submitted with the request:
- A. Primary procedure was initially successful in inducing weight loss; and
 - B. Patient has remained compliant to the prescribed nutrition and exercise program. (*See Guidelines section #IV*).
- IX. Placement of a *second* adjustable gastric band is considered **investigational** as there is no published literature to support the efficacy of a second adjustable gastric band after failure to produce weight loss of the first procedure.
- X. Based upon our criteria and assessment of peer-reviewed literature, use of an endoscopic/endoluminal procedure for *revisional* surgery (e.g., transoral outlet reduction) has not been medically proven effective and is considered **investigational**.
- XI. *Repeat surgery* for morbid obesity is considered **not medically necessary** for those patients who have either failed to lose weight or who have regained weight due to non-adherence with the prescribed nutrition and exercise program following their surgery.
- XI. Based upon our criteria and assessment of peer-reviewed literature, use of bariatric surgery as a treatment for either *non-obese patients with Type 2 diabetes mellitus* or for Type 2 diabetics with BMI between 30.0-34.9 kg/m² has not been medically proven to be effective and is considered **investigational**.
- XII. Based upon our criteria and assessment of peer-reviewed literature, performing a routine liver biopsy at the time of the bariatric surgery is considered **not medically necessary** in the absence of objective signs or symptoms of liver disease (e.g., elevated liver enzymes, enlarged liver).
- XIII. The adjustment of a previously placed laparoscopic gastric band, beyond the global, 90-day limit, is considered medically necessary to control the rate of weight loss and/or treat symptoms secondary to gastric restriction following a **medically necessary** adjustable gastric banding procedure.

Refer to Corporate Medical Policy #11.01.03 regarding Experimental and Investigational Services.

Refer to Corporate Medical Policy # 11.01.11 regarding Cosmetic and Reconstructive procedures.

POLICY GUIDELINES:

- I. Patients considering surgery must participate in an integrated pre- and post-surgery program consisting of dietary therapy, physical activity, and behavioral and social support programs. Post-surgically, patients must be involved in a formal program for at least one year.
- II. Gastric bypass surgery affects the absorption of medication and may lead to irregular blood levels of medication. Where drug level maintenance is critical, bypass surgery may be contraindicated. Examples include patients with seizure disorders requiring anti-seizure medications and patients with mental illness who require maintenance medication.
- III. Prophylactic cholecystectomy may be performed concurrent with bariatric surgery at the discretion of the surgeon, if cholelithiasis is present.
- IV. Some post bariatric surgery patients regain lost weight or never lose sufficient weight. Other patients may develop unacceptable postoperative symptoms. These failures may warrant reversal surgery or revision surgery (e.g., conversion to Roux-en-Y). Failures due to patient noncompliance reflect poor patient selection and do not warrant revision procedures. A clue to this is gastric pouch dilation in a patient not adhering to the recommended eating protocols. These patients are likely to fail again.
- V. Coverage is limited to physicians who have been properly trained in performing a bariatric procedure at facilities with the diagnostic and support services necessary for the care of morbidly obese patients.

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- VI. An expected outcome of successful bariatric surgery is redundant/excessive skin. Surgery to remove this skin is generally not considered medically necessary and therefore not covered. *Refer to Corporate Medical Policy # 7.01.53 regarding Abdominoplasty and panniculectomy.*
- VII. The Federal Employee Health Benefit Program (FEHBP/FEP) requires that procedures, devices or laboratory tests approved by the U.S. Food and Drug Administration (FDA) may not be considered investigational and thus these procedures, devices or laboratory tests may be assessed only on the basis of their medical necessity.

DESCRIPTION:

Obesity is a complex multifactorial, chronic condition that substantially raises an individual's risk of morbidity from hypertension, dyslipidemia, type 2 diabetes, coronary artery disease, stroke, gall bladder disease, osteoarthritis, sleep apnea, respiratory problems and a variety of cancers.

The 1998 National Heart Lung Blood Institute (NHLBI) expert panel defined Class I obesity as a body mass index (BMI) of 30-34.9 kg/m²; Class II obesity as a BMI of 35-39.9 kg/m²; and extreme obesity or Class III as a BMI greater than or equal to 40 kg/m².

Bariatric surgery can be divided into 2 categories: gastric restrictive procedures and malabsorptive procedures. Gastric restrictive procedures mechanically prevent the patient from overeating and the latter procedures interfere with the absorption of ingested nutrients. Examples of gastric restrictive procedures include vertical and horizontal banded gastroplasty and adjustable gastric banding. Malabsorptive procedures include biliopancreatic bypass, long limb gastric bypass and biliopancreatic bypass with duodenal switch. The Roux-en-Y gastric bypass is actually a combination of a gastric restrictive and malabsorptive procedure. A bariatric procedure is usually considered a success when at least 50% of excess body weight is lost or when the patient returns to within 30% of his/her ideal body weight.

The intragastric balloon has been proposed as a temporary non-surgical obesity treatment for short-term weight loss in patients who have had unsatisfactory results with their diet and exercise programs. The intragastric balloon has also been proposed for weight loss in the super-obese prior to a permanent, invasive surgical procedure. The saline-filled intragastric balloon, placed endoscopically, is intended to reduce gastric capacity, creating satiety and reducing food intake.

The TOGA and StomaphyX Systems consist of a set of transoral endoscopically guided staples that are used to create a stapled restrictive pouch along the lesser curvature of the stomach. The EndoCinch was initially devised for the endoscopic treatment of gastroesophageal reflux disease (GERD). With EndoCinch, sutures are deployed in a continuous and cross-linked fashion from the proximal fundus to the distal body. Once the suture is fixed, distention of the stomach is significantly limited, thus providing a method of restricting food intake. The Overstitch™ device allows for a full thickness endoscopic suturing compared to superficial thickness suturing provided by other devices. These endoscopic procedures may offer lower morbidity than other current bariatric procedures and are adjustable and reversible. They are being investigated as the primary bariatric surgery and as a revisional procedure to treat weight gain (e.g., large gastric pouch, large gastric stoma/dilated gastrojejunal anastomosis).

Laparoscopic gastric plication is a relatively new restrictive technique that involves sewing one or more folds in the stomach. Gastric plication reduces stomach volume by approximately 70%, and is potentially reversible.

Aspiration therapy as a treatment for obesity involves a surgically placed tube to drain a portion of the stomach contents after every meal. The tube is inserted in the stomach with an endoscope via a small incision in the abdomen. A disk-shaped port valve that lies outside the body, flush against the skin of the abdomen, is connected to the tube and remains in place. Approximately 20 to 30 minutes after meal consumption, the patient attaches the device's external connector and tubing to the port valve, opens the valve and drains the contents. Once opened, it takes approximately five to 10 minutes to drain food matter through the tube and into the toilet. The device removes approximately 30 percent of the calories consumed.

Single anastomosis duodeno-ileal bypass with sleeve gastrectomy (SADI-S) has a restrictive component when reducing the greater curvature of the stomach, but especially a malabsorptive component, as the common channel is also reduced.

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The objective of this surgical technique is to lessen the intestinal loop where nutrients are absorbed. The procedure is based on the biliopancreatic diversion in which a sleeve gastrectomy is followed by an end-to-side duodeno-ileal diversion. The preservation of the pylorus makes possible the reconstruction in one loop.

Stomach intestine pylorus sparing surgery (SIPS) is a modified version of the duodenal switch procedure. SIPS involves the creation of a 300 cm common channel with a single-anastomosis duodenal enterostomy. It involves the formation of a sleeve gastrectomy that is slightly larger than our usual sleeve, with an attachment placed beneath the pyloric valve, which controls emptying of the stomach into the mid gut, located three meters from the terminal ileum. A proposed benefit of SIPS is that it does not cause abrupt rise and fall of blood glucose, thus preserving the pyloric valve. Also, by not bypassing as much intestine, it may reduce the complications of short bowel syndrome.

Post bariatric surgery patients who regain lost weight, do not lose sufficient weight or develop unacceptable postoperative symptoms due to structural complications may warrant reversal or revision surgery. Reversal or revision of bariatric procedures is usually not warranted in patient failure due to noncompliance (e.g. gastric pouch dilation from 20cc to greater than 100cc in a patient not adhering to the recommended eating protocols). Conversely, revisional surgery for complications related to malabsorption resulting in hypoglycemia, malnutrition or weight loss of 20% below ideal body weight have been noted, particularly after malabsorptive procedures. Examples of laparoscopic adjustable gastric banding complications reported in the literature that may warrant revision, removal or conversion to another procedure include, but are not limited to, band slippage, band erosion, infection, esophageal dilation, dysphagia, and heartburn/reflux. Technical failures of LAGB include (but are not limited to) a displaced band, port dislocation, too tight a band creating food passage problems, band intolerance (e.g., pain, vomiting), and port and/or catheter leakage.

RATIONALE:

The hallmark piece of literature published supporting the safety and effectiveness of bariatric surgery is the National Institutes of Health (NIH) Consensus Statement. Among their findings, the panel recommended (1) gastric restrictive or bypass procedures could be considered for well informed and motivated individuals with acceptable operative risks (2) patients who are candidates for surgical procedures should be selected carefully after evaluation by a multidisciplinary team with medical, surgical, psychiatric and nutritional expertise, (3) the operation be performed by a surgeon substantially experienced with appropriate procedures and working in a clinical setting with adequate support for all aspects of management and assessment and (4) lifelong medical surveillance after surgical therapy is necessary.

The NIH Conference on the Surgical Management of Morbid Obesity (1998) states that obesity surgery should be reserved only for patients who have first attempted medical therapy. The NIH Consensus Conference states that the initial goal of medical therapy is a 10% weight reduction with a reasonable duration of 6 months. “The rationale for this initial goal is that even moderate weight loss can significantly decrease the severity of obesity-associated risk factors.” The patient’s ability to lose weight prior to bariatric surgery is an indication of the likelihood of compliance with the severe dietary restriction and behavioral changes required for the patient following surgery. Weight loss prior to surgery can also make surgical intervention easier to perform.

The Swedish Obese Subjects (SOS) intervention trial has reported on several hundred patients with up to 8 years of follow up. This trial demonstrated that surgery results in large amounts of weight loss compared to usual care (16% decrease in total body weight at 6 years versus an increase of 0.8% for usual care). Results of the SOS trial show substantial weight loss in the surgery group of a peak of 44 kg at 1 year and a gradual weight increase thereafter (mean loss of 30 kg at 2 years and 20 kg at 8 years). The SOS trial also shows that co-morbid conditions and quality of life are improved after surgery, with the most compelling evidence in the co-morbid conditions that exist for diabetics (a 18.5% decrease in diabetes vs. 3.6%). A decrease in the number of patients presenting with hypertension decreased in the short-term, but was not sustained 2 years following surgery.

In regards to specific bariatric procedures, there is sufficient data published in the medical literature to conclude that surgical management of obesity using open or laparoscopic Roux-en-Y gastric bypass procedures, sleeve gastrectomy or

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the duodenal switch procedure improves health outcomes for patients with morbid obesity. Improved health outcomes have been achieved outside the investigational setting.

The FDA has given premarket approval for the LAP-BAND® and Realize™ adjustable gastric banding devices. Adjustable gastric banding has been an evolving procedure with issues of migration and erosion being addressed by varying techniques and surgical modifications. Adjustable gastric banding is associated with fewer early complications, but more late complications and re-operations when compared to RGBP. Studies report reoperation rates due to adverse events at 5.6%-24%. Weight loss is also significantly less than Roux-en-Y gastric bypass in most reported studies of AGB. Evidence for 3-year outcomes related to weight loss after AGB was consistent with a 25% or greater excess weight loss reported. The reduction in BMI ranged from 7.9-15, but the typical patient in the studies remained obese (BMI greater than 30) in the majority of the studies. As studies demonstrate the % EWL is significantly less with adjustable gastric banding, the procedure works best for appropriately selected patients. Contraindications to adjustable gastric banding per the product insert of the LAP-BAND® are as follows:

1. Patients with inflammatory diseases of the gastrointestinal tract, including severe intractable esophagitis, gastric ulceration, duodenal ulceration, or specific inflammation such as Crohn's disease.
2. Patients with severe cardiopulmonary diseases or other serious organic disease which may make them poor surgical candidates.
3. Patients with potential upper gastro-intestinal bleeding such as esophageal or gastric varices or congenital acquired intestinal telangiectases.
4. Patients with portal hypertension.
5. Patients with congenital or acquired anomalies of the GI tract such as atresias or stenoses.
6. Patients who have/experience an intra-operative gastric injury during the implantation procedure, such as a gastric perforation at or near the location of the intended band placement.
7. Patients with cirrhosis.
8. Patients with chronic pancreatitis.
9. Patients who are addicted to alcohol and/or drugs.
10. Non-adult patients (patients under 18 years of age).
11. Patients who have an infection anywhere in their body or where the possibility of contamination prior to or during the surgery exists.
12. Patients on chronic, long-term steroid treatment.
13. Patients who are unable or unwilling to comply with dietary restrictions, which are required by this procedure.
14. Patients who are known to have, or suspected to have, an allergic reaction to materials contained in the system or who have exhibited pain intolerance to implanted devices.
15. Patients or family members with a known diagnosis or pre-existing symptoms of autoimmune connective tissue disease such as systemic lupus erythematosus or scleroderma.
16. Pregnancy: Placement of the LAP-BAND System is contraindicated for patients who currently are or may be pregnant. Patients who become pregnant after band placement may require deflation of their bands.”

In February 2011, the FDA granted approval for LAGB in patients with a BMI of 30-35 kg/m² in the presence of at least one weight-related comorbidity. The FDA labeling indicates that this procedure should be reserved for patients who are at the highest risk for weight-related complications and who have been unsuccessful in achieving medical weight loss. The evidence is insufficient to determine if LAGB improves the overall health outcomes for patients with BMIs that are lower than the current thresholds for bariatric surgery. The patients in these studies consist of a heterogenous patient population and the number and severity of comorbidities vary considerably. While the short-term evidence in current studies demonstrate weight loss in this patient population, and favorable changes in measures of diabetes, the impact of LAGB on other weight-related comorbidities is less certain.

JB Dixon, et al. (2008) performed a randomized controlled trial designed to determine if surgically induced weight loss results in better glycemic control and less need for diabetes medication than conventional approaches to weight loss and diabetes control in patients with BMI of greater than 30 and less than 40. (Results were not reported separately for

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patients with BMI less than or greater than 35.) Sixty patients were enrolled and 30 were randomized to LAGB and 30 to conventional diabetes care. Fifty-five completed the 2-year follow-up. Remission of diabetes was achieved by 22 (73%) in the LAGB group and 4 (13%) in the control group. The surgical group lost 62.5% of excess weight (using BMI of 25 as ideal weight) versus a loss of 4.3% of excess weight in the conventional group. Mean hemoglobin A1c was less than 6.2% at baseline in 2 surgically and 4 conventionally treated patients versus 24 and 6 patients, respectively, at 2 years. At baseline, 2 surgically treated and 4 conventionally treated patients were using no pharmacotherapy versus 26 and 8, respectively, at 2 years. One surgical patient developed a wound infection, 2 developed gastric pouch enlargement and had laparoscopic revision to remove and replace the band. The remaining evidence at the present time consists of small case series and case reports with short follow-up from non-U.S. centers employing procedures considered investigational in this policy (e.g., stand-alone sleeve gastrectomy, mini gastric bypass). Overall, the data are insufficient to allow conclusions regarding the efficacy of bariatric surgical procedures in the treatment or cure of type 2 diabetes.

A September 2004 report addressing bariatric surgery in morbidly obese adolescents found, of all the patients who receive bariatric surgery, about 1% are adolescents. None of the studies investigating bariatric surgery in this age group reported long-term outcomes. Evidence is insufficient to determine if bariatric surgery allows for a clinically significant weight loss amount nor does the evidence allow any conclusions regarding improvements in co-morbidities, or the rates of harm in performing this type of procedure in this patient population. As yet, we do not know how bariatric surgery affects the growth and sexual development of adolescents with morbid obesity.

The short- and mid-term outcomes and complication rates of sleeve gastrectomy appear to be similar to those of other restrictive and malabsorptive procedures (Leyba, et al. 2011; Himens, et al 2010; D'Hondt, et al 2011; Chouillard, et al 2011). The procedure was proposed initially as the first step in a staged procedure for high-risk (super obese) patients, and longest follow-up data is available for these patients.

The ORBERA™ Intra-gastric Balloon (Apollo Endosurgery, Inc.) received FDA approval in August 2015. The FDA approval is for patients with a BMI of 30-40 to assist in losing and maintaining weight. The ReShape Integrated Dual Balloon System (REShape medical, Inc.) also received FDA approval in July 2015. The device is also intended to facilitate weight loss in obese adult patients with a BMI of 30-40 who have been unsuccessful in losing weight through diet and exercise. Patients must also have one or more obesity related conditions such as diabetes, high blood pressure or high cholesterol. Both approved devices are considered temporary and should be removed after 6 months. Obalon Therapeutics received FDA approval for the Obalon Balloon System in September 2016. The Obalon Balloon System is a swallowable intra-gastric balloon system indicated for temporary use to facilitate weight loss in adults with obesity (BMI of 30 – 40 kg/m²) who have failed to lose weight through diet and exercise. The System is intended to be used as an adjunct to a moderate intensity diet and behavior modification program. All balloons must be removed 6 months after the first balloon is placed. Peer-reviewed literature is currently insufficient to determine the efficacy and safety of an intra-gastric balloon as a weight loss technique. A systematic review (Fernandes, et al. 2007) to assess the efficacy of the intra-gastric balloon (IGB) found studies had very short follow-up and when compared to conventional management, IGB outcome data did not provide convincing evidence of a greater weight loss. More recent studies (e.g., REDUCE trial by Ponce, et al. 2015) found promising short-term (up to 48 weeks) results of weight loss when balloon insertion was compared to diet and exercise alone. In the Obalon clinical trial, 387 patients in the United States across fifteen clinical trial sites were randomized in a double-blind, sham-controlled study. The patients in the clinical trial received either three Obalon balloons or three sham placebo-like devices that looked similar to the balloons, but were filled with sugar. The patients in both groups were given minimal diet counseling of 25 minutes every three weeks. Both co-primary weight loss endpoints were met, with approximately 65% of patients who received the Obalon Balloon System experiencing clinically meaningful weight loss of at least 5% of their total body weight, which is twice as many people than in the sham-control group. Further studies are needed to demonstrate the long-term effects of utilizing intra-gastric balloon as a weight loss strategy.

Literature related to transoral gastroplasty for the treatment of obesity is limited; data is insufficient to provide conclusions on its safety and efficacy. The results of two studies (n=21, BMI range 35-53) were presented at the 2007 SAGES Annual Scientific Session. Follow-up for six patients at six months demonstrated an average weight loss of 31

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pounds and an EWL of 24.9%. Sham-controlled trials are needed to further evaluate the utility of the EndoCinch device in obesity. Well-designed studies with long-term follow-up will be needed to measure the durability of the observed weight loss. Particularly, the stability of the gastric sutures remains unproven given the lack of long-term data.

There is not sufficient data published in the medical literature to draw conclusions about the safety and effectiveness of the mini-gastric bypass (also called loop gastric by-pass) procedure.

While preliminary data show that gastric plication has acceptable complication rates and weight loss outcomes in the short-term (e.g., Fried, et al. 2012; Skrekas, et al. 2011; Kourkoulos, et al. 2012; Talebpour, et al. 2012; Abelbaki, et al. 2012), additional well-designed comparative studies with established bariatric procedures are needed to determine its overall safety, efficacy and impact on health outcomes.

No controlled trials of single anastomosis duodeno-ileal bypass with sleeve gastrectomy have been identified. Some case series have reported on weight loss and other clinical outcomes up to 5 years post surgery. One larger series was published in 2015 (Sanchez-Pernaute, et al.) and reported on 97 patients with obesity and T2D. The authors reported that control of diabetes, defined as an HbA1c less than 6.0%, was achieved between 70% and 84% of patients at different time points. Remission rates were higher for patients on oral therapy than those on insulin, and were higher in patients with a shorter duration of diabetes. Currently, data is insufficient to provide conclusions on SADI-S safety and efficacy.

The AspireAssist obesity device (Aspire Bariatrics) received FDA approval in June 2016. Per the manufacturer, the AspireAssist device should not be used on patients with eating disorders, and it is not intended to be used for short durations in those who are moderately overweight. It is intended to assist in weight loss in patients aged 22 and older who are obese, with a body mass index of 35 to 55, and who have failed to achieve and maintain weight loss through non-surgical weight-loss therapy. The FDA reviewed results from a clinical trial of 111 patients treated with AspireAssist and appropriate lifestyle therapy, and 60 control patients who received only the lifestyle therapy. After one year, patients using AspireAssist lost an average of 12.1 percent of their total body weight compared to 3.6 percent for the control patients. There is insufficient literature to determine its overall benefit and safety as a bariatric procedure.

Transoral outlet reduction is being evaluated as an endoscopic revisional surgery in patients with weight regain following their primary bariatric procedure (e.g., gastric bypass). Preliminary results are promising with feasibility, safety and short-term efficacy being demonstrated in case series (Jirapino, et al. 2013; Thompson, et al. 2013, Kumar, et al. 2014). However, the long-term durability of the procedure still needs to be proven in larger studies.

The literature is insufficient to determine the long-term outcomes of stomach intestine pylorus sparing surgery (SIPS) in the treatment of morbid obesity.

Twelve months of abstinence is usually required for patients with a history of drug/alcohol abuse as liver toxins need to be avoided due to the higher rate of liver disease post bariatric surgery.

There is very little information available on the prevalence of asymptomatic liver disease in morbidly obese patients. The role of routine liver biopsy plays in patients undergoing bariatric surgery is not known. Liver biopsy is not routine practice in bariatric surgery. Impact on health outcomes has not been established through well-designed clinical trials. At this time, there is not sufficient evidence to support routine liver biopsy in patients undergoing bariatric surgery. Additional data from well-designed RCTs are needed to support the need for routine liver biopsy during bariatric surgical procedures. The British Society of Gastroenterology guidelines on the use of liver biopsy in clinical practice do not mention routine biopsy of the liver with bariatric surgery or indeed any other abdominal surgery. Recent American guidelines also do not endorse routine liver biopsies with abdominal surgery.

CODES: Number Description

Eligibility for reimbursement is based upon the benefits set forth in the member's subscriber contract.

CODES MAY NOT BE COVERED UNDER ALL CIRCUMSTANCES. PLEASE READ THE POLICY AND GUIDELINES STATEMENTS CAREFULLY.

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Codes may not be all inclusive as the AMA and CMS code updates may occur more frequently than policy updates.

<u>CPT:</u>	43644	Laparoscopy, surgical, gastric restrictive procedure; with gastric bypass and Roux-en-Y gastroenterostomy (roux limb 150 cm or less)
	43645	with gastric bypass and small intestine reconstruction to limit absorption
	43770	Laparoscopy, surgical, gastric restrictive procedure; placement of adjustable gastric band (gastric band and subcutaneous port components)
	43771	revision of adjustable gastric band component only
	43772	removal of adjustable gastric band component only
	43773	removal and replacement of adjustable gastric band component only
	43774	removal of adjustable gastric band and subcutaneous port components
	43775	Laparoscopy, surgical, gastric restrictive procedure; longitudinal gastrectomy (ie, sleeve gastrectomy)
	43842	Gastric restrictive procedure, without gastric bypass, for morbid obesity; vertical banded gastroplasty
	43843	other than vertical –banded gastroplasty
	43845	Gastric restrictive procedure with partial gastrectomy, pylorus-preserving duodenoileostomy and ileoileostomy (50 to 100 cm common channel) to limit absorption (biliopancreatic diversion with duodenal switch)
	43846	Gastric restrictive procedure, with gastric bypass, for morbid obesity; with short limb (150 cm or less) Roux-en-Y gastroenterostomy
	43847	with small bowel reconstruction to limit absorption
	43848	Revision of gastric restrictive procedure for morbid obesity
	43886	Gastric restrictive procedure, open; revision of subcutaneous port components only
	43887	removal of subcutaneous port component only
	43888	removal and replacement of subcutaneous port component only

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<u>HCPCS:</u>	S2083	Adjustment of gastric band diameter via subcutaneous port by injection or aspiration of saline
	C9724 (E/I)	Endoscopic full thickness plication of stomach using endoscopic plication system (EPS); includes endoscopy
<u>ICD10:</u>	E66.01	Morbid (severe) obesity due to excess calories
	Z68.30-Z68.45	Body mass index (BMI), 30.0-69.9, adult (code range)

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<p>SUBJECT: SURGICAL MANAGEMENT OF OBESITY</p> <p>POLICY NUMBER: 7.01.29</p> <p>CATEGORY: Technology Assessment</p>	<p>EFFECTIVE DATE: 05/18/00</p> <p>REVISED DATE: 03/21/02, 02/20/03, 10/15/03, 11/18/04, 08/18/05, 04/20/06, 11/16/06, 11/15/07, 12/18/08, 01/21/10, 12/16/10, 10/20/11, 12/20/12, 11/21/13, 12/18/14, 11/19/15, 10/20/16, 4/20/17, 03/15/18, 08/16/18</p> <p>PAGE: 16 OF: 17</p>
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*key article

KEY WORDS: Adjustable gastric band, Aspiration therapy, Bariatric, Endobarrier, Gastric bypass, Gastric plication, Imbrication, intragastric balloon, Lap Band, ROSE, Roux-en-Y, SIPS, Sleeve gastrectomy, Transoral outlet reduction.

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CMS COVERAGE FOR MEDICARE PRODUCT MEMBERS

There is currently a National Coverage Determination (NCD) for bariatric surgery. Please refer to the following NCD website for Medicare Members: <http://www.cms.gov/medicare-coverage-database/details/ncd-details.aspx?NCDId=57&ncdver=5&CoverageSelection=Both&ArticleType=All&PolicyType=Final&s=New+York+-+Upstate&CptHcpcsCode=36514&bc=gAAAABAAAAAAAA%3d%3d&>

There is also an article from the National Government Services contractor related to sleeve gastrectomy. Please refer to the following web site: [https://www.cms.gov/medicare-coverage-database/details/article-details.aspx?articleId=52447&ver=6&Ctrctr=299&ContrVer=1&CtrctrSelected=299*1&name=National+Government+Services%2c+Inc.+\(National+Government+Services%2c+Inc.+\(13102%2c+A+and+B+and+HHH+MAC%2c+J+-+K\)\)&LCtrctr=299*1&DocType=Active&bc=AgAAAAIAAAAAAAAA%3d%3d&](https://www.cms.gov/medicare-coverage-database/details/article-details.aspx?articleId=52447&ver=6&Ctrctr=299&ContrVer=1&CtrctrSelected=299*1&name=National+Government+Services%2c+Inc.+(National+Government+Services%2c+Inc.+(13102%2c+A+and+B+and+HHH+MAC%2c+J+-+K))&LCtrctr=299*1&DocType=Active&bc=AgAAAAIAAAAAAAAA%3d%3d&)