CLINICAL MEDICAL POLICY	
Policy Name:	Bariatric Surgery
Policy Number:	MP-004-MD-PA
Responsible Department(s):	Medical Management
Provider Notice/Issue Date:	11/01/2022; 04/01/2022; 03/19/2021; 04/20/2020; 05/06/2019; 08/01/2018; 04/15/2018; 07/05/2016
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Next Annual Review:	01/2023
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Products:	Highmark Wholecare℠ Medicaid
Application:	All participating hospitals and providers
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Policy History

Date	Activity
12/01/2022	Provider Effective date
10/11/2022	PARP approval
09/21/2022	QI/UM Committee review
09/21/2022	Urgent Review: Corrected sleeve gastrectomy (laparoscopic) performed as part of a two-staged procedure guidelines under Eligible Bariatric Procedures section from "*BMI is greater than or equal to 50 kg/m^2*" to "*BMI is greater than or equal to 40 kg/m^2*". Updated 'Summary of Literature' and 'Reference Sources' sections.
05/01/2022	Provider Effective date
03/07/2022	PARP Approval
01/19/2022	QI/UM Committee review
01/19/2022	Annual Review: No changes to clinical criteria. Minor wording changes to Procedures section. Updated Summary of Literature and Reference Sources sections. Added the following diagnosis codes: K21.00, K21.01.
04/19/2021	Provider Effective Date
03/05/2021	PARP Approval
01/20/2021	QI/UM Committee review
01/20/2021	Annual Review: Removed criteria and diagnosis codes (N46.11, N46.12, N46.121-N46.129, N46.8, N46.9, N97.0-N97.9) related to infertility as ACOG no longer explicitly

Date	Activity
	states that bariatric surgery for infertility is experimental investigational. Updated Summary of Literature and References.
05/18/2020	Provider Effective Date
03/12/2020	PARP Approval
01/15/2020	QI/UM Committee review
01/15/2020	Annual Review: Updated definition section; added obesity class table for adolescents, under procedure section 1.B.1 added obesity class III, 1.0.2 added obesity class II; 1.B.f added criteria to define obesity hypoventilation syndrome; 1.B.j add nonalcoholic fatty liver disease as eligible comorbidity; Section 1.D added 2 year time frame for nutrition and exercise program; in #4 A.8 added that imaging studies must confirm complications listed; #6 updated noncovered section to include the TOGA and intragastric balloon services as well the Governing Bodies section for these procedures; updated the Summary of Literature and Reference Section
05/06/2019	Provider Effective Date
04/16/2019	In order to be in line with the noncovered procedures listed in Section #6, a new table was created for noncovered procedure codes in Attachment B that includes codes 43842, 42847 & 43999.
02/15/2019	PARP Approval
01/16/2019	QI/UM Committee review
08/01/2018	Provider Effective Date
04/15/2018	Provider effective date
03/01/2018	PARP Approval
01/24/2018	QI/UM Committee Review
07/05/2016	Provider effective date
03/03/2016	PARP approval date
02/17/2016	Initial policy development

Disclaimer

Highmark Wholecare℠ medical policy is intended to serve only as a general reference resource regarding coverage for the services described. This policy does not constitute medical advice and is not intended to govern or otherwise influence medical decisions.

Policy Statement

Highmark Wholecare℠ may provide coverage under the medical-surgical benefits of the Company's Medicaid products for medically necessary bariatric surgical procedures for patients who are 18 years of age or older and are diagnosed with persistent morbid obesity for at least two years (24 months).

Routine cholecystectomy performed in conjunction with bariatric surgery is considered medically necessary. A liver biopsy, upper gastrointestinal (UGI) endoscopy, and esophagogastroduodenoscopy (EGD) are considered integral components of all bariatric procedures and are not eligible for separate payment when reported on the same day as the bariatric surgical procedure.

This policy is designed to address medical necessity guidelines that are appropriate for the majority of individuals with a particular disease, illness or condition. Each person's unique clinical circumstances warrant individual consideration, based upon review of applicable medical records. Bariatric surgery in children and adolescents may be covered under the Pennsylvania Medicaid fee schedule, if medically necessary. Requests are considered on a case-by-case basis.

The qualifications of the policy will meet the standards of the National Committee for Quality Assurance (NCQA) and the Commonwealth of Pennsylvania (PA) Department of Human Services (DHS) and all applicable state and federal regulations.

(Current applicable PA HealthChoices Agreement Section V. Program Requirements, B. Prior Authorization of Services, 1. General Prior Authorization Requirements.)

Definitions

Prior Authorization Review Panel (PARP) – A panel of representatives from within the Pennsylvania Department of Human Services who have been assigned organizational responsibility for the review, approval and denial of all PH-MCO Prior Authorization policies and procedures.

Roux-en-Y Gastric Bypass (RYGBP) – The RYGBP achieves weight loss by gastric restriction and malabsorption. Reduction of the stomach to a small gastric pouch (30 cc) results in feelings of satiety following even small meals. This small pouch is connected to a segment of the jejunum, bypassing the duodenum and very proximal small intestine, thereby reducing absorption. RYGBP procedures can be open or laparoscopic.

Sleeve Gastrectomy (SG) – A procedure performed by removing approximately 80% of the stomach. The remaining stomach is a tubular pouch that resembles a banana.

Biliopancreatic Diversion with Duodenal Switch (BPD/DS) – A procedure with two components. First, a smaller, tubular stomach pouch is created by removing a portion of the stomach, very similar to the sleeve gastrectomy. Next, a large portion of the small intestine is bypassed.

Adjustable Gastric Banding (AGB) – Also called a lap-band, an inflatable silicone device placed around the top portion of the stomach to treat obesity, intended to slow consumption of food and thus reduce the amount of food consumed.

Vertical Banded Gastroplasty (VBG) – Also known as stomach stapling, a form of bariatric surgery for weight control. The VBG involves using a band and staples to create a small stomach pouch.

Body Mass Index (BMI) – A person's weight in kilograms divided by the square of height in meters. A BMI is useful as a screening measure.

Extreme Obesity – A condition in which the person has a body mass index of ≥ 40 kg/m^2. This condition has been referred to as Class III obesity.

Gastric Balloon – A device developed as a temporary adjunct to diet and behavior modification to reduce weight of patients who fail to lose with diet and behavior modification. The device is inserted into the stomach in order to reduce the capacity of the stomach and to affect early satiety.

Metabolic Surgery – Bariatric surgery performed with the primary intent to treat Type 2 diabetes or metabolic syndrome.

Procedures

1. Bariatric surgery will be considered medically necessary when ALL of the criteria listed below are met:
   - The patient is 18 years of age or older; AND
   - The patient is considered to be morbidly obese, as defined below:
     1) A BMI greater than or equal to 40 kg/m^2 (Class III Obesity); OR
     2) A BMI between 35 and 39.9 kg/m^2 (Class II Obesity), in conjunction with one or more comorbidities related to obesity such as:
        a. Medically refractory hypertension (i.e., blood pressure greater than 140 mmHg systolic and/or 90 mmHg diastolic despite concurrent use of three anti-hypertensive agents); OR
        b. Coronary artery disease with objective documentation (i.e., exercise stress test, radionuclide stress test, angiograph, stress echocardiography); OR
        c. Uncontrolled/refractory hyperlipidemia not amendable to optimal conventional treatment; OR
        d. Type 2 diabetes mellitus: OR
        e. Clinically significant obstructive sleep apnea (OSA) (i.e., patient meets criteria for treatment of OSA); OR
        f. Obesity-hypoventilation syndrome (OHS) as demonstrated by a CO2 > 45 mmHg, hypoxemia at rest with a O2 < 55 mmHg on room air; FEV1/FVC > 65%; OR
        g. Pickwickian syndrome (a combination of OSA and OHS); OR
        h. Pseudotumor cerebri; OR
        i. Severe nonalcoholic steatohepatitis (NASH)
        j. Nonalcoholic fatty liver disease (NALD); AND
   - The patient's morbid obesity interferes with daily functions, to the extent that performance is severely curtailed; AND
   - There is a documented history of failure of medical weight loss recognized as either participation in a physician-supervised nutrition and exercise program, OR a multi-disciplinary surgical preparatory regimen for at least six consecutive months' duration, within two years before the proposed weight loss surgery; AND
   - The patient is not currently pregnant and/or breast feeding and has agreed to avoid pregnancy for at least one year post-surgical intervention; AND
   - The patient has participated in ONE of the following:
     1) preoperative surgical care, directed and provided by the patient's physician; OR
     2) multidisciplinary surgical preparatory regimen, including ALL of the following components:
        a) thorough medical history and physical examination; AND
        b) consultation and instruction by a professional provider on low-calorie diets and an exercise program based on the patient's capability; AND
        c) an assessment by a psychologist or psychiatrist stating that there are no behavioral health contraindications to the bariatric surgery, postoperative follow-up care, and nutrition guidelines. (The presence of depression due to obesity is not normally considered a contraindication for bariatric surgery); AND

- The patient has no specifically correctable cause for the obesity (e.g., endocrine disorder such as a normal TSH level).

2. Bariatric surgery patients must participate in a nutrition and exercise program that is documented in the medical record by an attending and supervising physician. ALL of the following components must be met:
   - The nutrition and exercise program may be administered as part of the surgical preparative regimen, and participation in the nutrition and exercise program may be supervised by the surgeon who will perform the surgery or by another physician; AND
   - A physician's summary letter is not sufficient documentation. Documentation should include medical records of physician's contemporaneous assessment of the patient's progress throughout the course of the nutrition and exercise program; AND
   - For patients who participate in the physician-administered nutrition and exercise program (e.g., MediFast, OptiFast), program records documenting the patient's participation and progress may substitute for the physician medical record; AND
   - The nutrition and exercise program must be supervised and monitored by a physician working in cooperation with dieticians and/or nutritionists, with a substantial face-to-face component (must not be entirely remote); AND
   - The nutrition and exercise program must be a cumulative time period (determined by performing surgeon), a cumulative total of six months prior to surgery indicating the patient's commitment to lifestyle changes necessary post-bariatric surgery.

3. The following are a list of eligible bariatric surgery procedures:
   - Adjustable gastric banding, laparoscopic; OR
   - Roux-en-Y gastric bypass with long limb (distal) (greater than 150 cm) (open or laparoscopic); OR
   - Roux-en-Y gastric bypass with short limb (proximal) (150 cm or less) (open or laparoscopic); OR
   - Biliopancreatic bypass with duodenal switch; OR
   - A sleeve gastrectomy (laparoscopic), OR
   - A sleeve gastrectomy (laparoscopic) performed as part of a two-staged procedure is considered an eligible procedure for patients who meet ALL of the following medical necessity criteria:
     1) The sleeve gastrectomy is part of a risk-reduction strategy as part of the two-stage procedure; AND
     2) The patient's BMI is greater than or equal to 40 kg/m^2; AND
     3) The planned second-stage bariatric surgery procedure is to occur within 24 months following the first-stage sleeve gastrectomy procedure; AND
     4) History of failure of medical weight loss documented as either participation in a physician-supervised nutrition and exercise program OR multi-disciplinary surgical preparatory regimen for at least six consecutive months' duration; AND
     5) The patient is not currently pregnant and/or breast feeding and has agreed to avoid pregnancy for at least one year postoperatively; AND
     6) An evaluation by a licensed mental health professional provider that specifically evaluates all of the following: any mental health or substance abuse conditions; the emotional readiness and ability of the individual to make and sustain lifestyle changes; and the adequacy of the individual's support system.

   Note: Routine cholecystectomy performed in conjunction with bariatric surgery is considered medically necessary. A liver biopsy, upper gastrointestinal (UGI) endoscopy, and esophagogastroduodenoscopy (EGD) are considered an integral component of all bariatric

procedures and are not considered separate procedures when reported on the same day as the bariatric surgical procedure.

4. Repeat or Revised Bariatric Surgery
   Highmark Wholecare℠ considers the revision of bariatric surgeries medically necessary to correct a major complication following an initial medically necessary bariatric surgery. Complications may include, but are not limited to:
   - Enteric fistula
   - Gastrogastric fistula associated with ulcers
   - Stricture/stenosis with dysphagia, solid food intolerance
   - Dehiscence of anastomoses or staple lines
   - Separation, disruption, or anastomotic leakage of a stapled/sutured area
   - Wound separation
   - Refractory marginal ulcers
   - Obstruction, pouch dilatation, band erosion or band slippage when the complication causes pain, inability to eat or drink, or causes vomiting of prescribed meals (confirmed by imaging studies)

   Repeat surgical procedures for revision or conversion to another surgical procedure for inadequate weight loss are considered medically necessary when the ALL of the following criteria are met:
   1) The patient continues to meet all the medical necessity criteria for the bariatric surgery, including current preoperative nutritional assessment; AND
   2) There is documentation of compliance with the previously prescribed postoperative dietary and exercise program; AND
   3) Weight loss following the original surgery is less than 50% of the preoperative excess body weight, and weight remains at least 30% over the ideal body weight at least two years following the primary bariatric surgery procedure.

   Prior to consideration of a second bariatric procedure, patients who have undergone adjustable gastric banding must demonstrate that appropriate band manipulation/adjustments in conjunction with regular postoperative visits and nutritional compliance have failed to result in adequate weight loss.

5. Contraindications
   - Prohibitive perioperative risk of cardiac complications due to cardiac ischemia or myocardial dysfunction
   - Severe chronic obstructive airway disease or respiratory dysfunction
   - Failure to cease tobacco use for at least six weeks prior to surgery
   - Psychological/psychiatric condition
     - Schizophrenia, borderline personality disorder, suicidal ideation, severe or recurrent depression, or bipolar affective disorders with difficult-to-control manifestations (e.g., history of recurrent lapses in control or recurrent failure to comply with management regimen)
     - Intellectual disability that prevents personally provided informed consent or the ability to understand and comply with a reasonable pre- and post-operative regimen
     - Any other psychological/psychiatric disorder that, in the opinion of a psychologist/psychiatrist, imparts a significant risk of psychological/psychiatric decompensation or interference with long-term postoperative management.

- History of significant eating disorders, including anorexia nervosa, bulimia, and pica (i.e., ingesting sand, clay, or other abnormal substances)
- Hepatic disease with prior documented inflammation, portal hypertension, or ascites (i.e., fluid accumulation in the peritoneal cavity)
- Severe hiatal hernia/gastroesophageal reflux (for purely restrictive procedures such as laparoscopic adjustable gastric banding)
- Autoimmune and rheumatological disorders (including inflammatory bowel diseases and vasculitides) that will be exacerbated by the presence of intra-abdominal foreign bodies (for the laparoscopic adjustable gastric banding procedure)
- Current drug and/or alcohol abuse
- Non-compliance with medical treatment of obesity or treatment of other chronic medical condition.

The scientific evidence for bariatric procedures other than those listed above has not been established, and therefore considered not medically necessary. These procedures include, but are not limited to ANY of the following:

- Open adjustable gastric banding
- Open sleeve gastrectomy
- Biliopancreatic diversion (BPD) without duodenal switch (DS)
- Endoscopic procedures: StomaphyX™ device, ROSE, and transoral gastroplasty (TOGA) procedures
- Gastrointestinal liners (EndoBarrier®)
- Intragastric balloon

6. Post-payment Audit Statement
   The medical record should include documentation that reflects the medical necessity criteria and is subject to audit by Highmark Wholecare℠ at any time pursuant to the terms of your provider agreement.

7. Place of Service
   Bariatric surgery may be performed as either an inpatient or outpatient depending upon the individual patient's condition or comorbidities. The following procedures are typically considered inpatient procedures:
   - Biliopancreatic Diversion with Duodenal Switch
   - Roux-en-Y Gastric Bypass
   - Sleeve Gastrectomy
   - Bariatric Revisional Surgery

Governing Bodies Approval

In 2001, the U.S. Food and Drug Administration (FDA) premarket approval for the LAP-BAND® System and the REALIZE™ indicates they are for use only in the severely obese adult patients. Devices that are used for laparoscopic adjustable gastric banding do not have FDA approval in the U.S. for individuals younger than age 18 years.

StomaphyX®, an endoscopically guided system, received FDA approval in 2007 and is indicated for use in endoluminal transoral tissue approximation, ligation in the GI tract.

Transoral gastroplasty (TOGA) is not currently FDA-approved.

Gastrointestinal liners (e.g., EndoBarrier) have not received FDA approval.

The ASPiREAssist® system was FDA-approved in June 2016 with the intent to assist in weight reduction in obese patients. An endoscopic surgical procedure is used to place a tube into the stomach and is connected to a port valve, which lies outside on the skin. Twenty to thirty minutes after each meal, the patient is to connect a drainage tube to the port and empty the stomach contents. Approximately 30 percent of the calories consumed are removed. The system is approved for use in adults aged 22 and older with a BMI of 35.0 to 55.0 kg/m^2 who have failed to achieve and maintain weight loss with non-surgical weight loss modalities.

There are two FDA-approved intragastric balloon systems, the ORBERA and the ReShape Integrated Dual Balloon System. The ORBERA was approved in August 2015 and the ReShape received approval in July 2015. Both devices are intended for use in obese adults who have failed weight reduction with diet and exercise and have no contraindications. The devices are placed endoscopically, inflated with saline, with a maximum placement time of 6 months. There is no research on the comparison of the ASPiREAssist versus other bariatric surgical procedures.

The Centers for Medicare and Medicaid Services (CMS) has published the following guidance:

- National Coverage Determination (NCD) Bariatric Surgery for Treatment of Co-Morbid Conditions Related to Morbid Obesity (100.1)
- Local Coverage Determination (LCD) Bariatric Surgical Management of Morbid Obesity (L35022)
- Local Coverage Article (LCA) Billing and Coding: Bariatric Surgical Management of Morbid Obesity (A56422)

Summary of Literature

Obesity is an officially recognized global disease and continues to be a risk factor for chronic medical conditions such as cardiovascular diseases, diabetes, chronic kidney disease, nonalcoholic fatty liver disease, metabolic syndrome, and many cancers. Obesity is now included among the global non-communicable disease targets identified by the World Health Organization (WHO). In 2015, a total of 107.7 million children and 603.7 million adults had obesity worldwide. The prevalence of obesity in the United States is among the highest in the world. According to the National Health and Nutrition Examination Survey 2013–2016 data set, 38.9% of U.S. adults and 18.5% of youth aged 2 to 19 years had obesity. This translates into 93.3 million adults and 13.7 million children and youth, respectively. More women (40.8%) than men (36.5%) were obese, with non-Hispanic black women (55.9%) showing the highest prevalence. Although the prevalence of obesity has been steady among adults since 2011 to 2012, prevalence in certain subpopulations continue to rise, particularly for those with severe (class III, body mass index [BMI] 40 kg/m^2) obesity, among whom overall age-adjusted rates of prevalence are 5.5% and 9.8% for men and women, respectively, and 16.8% for non-Hispanic women (ASMBS, 2020).

Surgical treatment of obesity involves reducing functional gastric capacity and modifying intestinal anatomy to restrict caloric intake and/or induce malabsorption. Various surgical procedures that are intended for the treatment of morbid obesity have been developed, including combined restrictive and malabsorptive bariatric surgery (gastric bypass), gastric restrictive surgery, and gastric malabsorption

(biliopancreatic diversion) surgery. In addition to the individualizing of an appropriate bariatric procedure to a specific patient, the method of the procedure must be chosen. According to the ASMBS (2020) laparoscopic procedures are preferred over open procedures due to the postoperative morbidity and mortality.

The bariatric surgery patient needs to be well-informed, motivated, willing to participate in long-term care, change dietary patterns, and embrace a revised lifestyle. The patient should be evaluated and subsequently cared for by a team approach involving the surgeon, a nurse practitioner or nurse, a dedicated dietician, and other specialists when needed. In addition to a preoperative history, physical, a preoperative discussion that provides information on postoperative recovery, dietary changes, activity, and clinical outcomes, by the dietician, the bariatric nurse, and the bariatric surgeon, is critical. Availability of a support group is recommended, as is distribution of literature describing procedures, postoperative diets, and exercise (ASMBS, 2005).

Informed consent plays a major role in the preoperative discussions. The risks, benefits, procedural options, choices of surgeon and institution, and the need for long-term follow up and vitamin supplementation should be discussed with the patient before the procedure. Patients must also be provided with educational materials that are culturally and educationally appropriate and access to similar preoperative educational sessions at prospective bariatric surgery centers (ASMBS, 2020).

Preprocedure weight loss is encouraged and has been shown to reduce liver volume which may help improve the technical aspects of surgery in patients with an enlarged or fatty liver. Preprocedure weight loss or nutritional therapy may be recommended to patients to improve co-morbidities, such as preprocedure glycemic targets (ASMBS, 2020).

Windover (2013) states that tobacco use persists as the leading cause of preventable death worldwide and is prevalent among bariatric surgical candidates. Based on the author's research, it is recommended that bariatric surgery centers establish a standard protocol that includes assessment of tobacco use and referrals for tobacco use treatment and intervention for individuals identified as at-risk future tobacco users. Finks et al. (2011) reported that there is an association between tobacco use and respiratory complications following bariatric surgery. Patients who smoked cigarettes within one year of having bariatric surgery were at increased risk for developing pneumonia. There is an increased incidence of developing marginal ulcers (AOR 30.6, 95% CI, 6.4-146, $p < 0.001$) and wound dehiscence (OR 20.9, 95% CI, 1.1-411, $p < 0.046$) postoperatively (Wilson et al. 2006). The latest evidence-based bariatric surgery guidelines recommend advising tobacco users to quit tobacco at least six weeks prior to bariatric surgery (Blackburn et al., 2009).

Significant advances have been made in recent years with the growing role of bariatric surgery in the treatment of patients with type-2 diabetes (T2D). A large body of evidence from 12 RCTs showed that bariatric/metabolic surgery achieves far greater improvements in patients with T2D, when compared to various medical and lifestyle interventions. The improvements can be linked to both weigh loss-dependent and independent effects. According to guidelines published by the 2015 Second Diabetes Surgery Summit Consensus Conference, metabolic surgery should be considered in patients with T2D and obesity (BMI > 35.0 kg/m^2) when hyperglycemia is inadequately controlled with lifestyle and optimal medical therapy (ASMBS, 2020).

According to the American Society of Metabolic and Bariatric Surgery (ASMBS), the two most common bariatric surgical procedures currently performed in the United States are sleeve gastrectomy (SG) and Roux-en-Y gastric bypass (RYGB). Both procedures have been shown to have an excellent safety profile,

particularly when performed in accredited centers. Moreover, both procedures provide meaningful and relatively similar weight loss and remission of obesity-associated comorbidities, at levels that are far superior to those of nonsurgical therapy. Both procedures are also associated with significant reductions in premature deaths from cardiovascular diseases, deaths related to type 2 diabetes, and deaths associated with multiple cancers. (ASMBS, 2021).

Tobacco use must be avoided at all times by all patients. In particular, patients who smoke cigarettes should stop as soon as possible, preferably 1 year but at the very least 6 weeks before bariatric procedure. In addition, tobacco use must be avoided after bariatric procedures given the increased risk of poor wound healing, anastomotic ulcer, and overall impaired health. Structured intensive cessation programs are preferable to general advice and should be implemented (ASMBS, 2020).

Vertical banded gastroplasty (VBG), or stomach stapling, is a surgical procedure for obesity that is outdated and rarely performed because it is among the oldest surgical weight loss procedures (Ferreira, 2013). Additionally, there is a high rate of reoperations, and the reversal operation to the VBG procedure is very complex and intense (Dielen, 2005). The biliopancreatic diversion bypass (BPD) without the duodenal switch has little evidence-based case series reported in the U.S. a procedure developed by Nicola Scopinaro (. The BPD procedure may be associated with several serious postoperative complications, such as protein-calorie malabsorption, steatorrhea, diarrhea, foul-smelling stools, severe bone pain, a variety of nutrient deficiencies and other metabolic derangements, and life-long dependency on supplemental vitamins and minerals Additionally, there have been case reports of liver damage, resulting either in death or liver transplant (ASMBS, 2020). Modifications were made to the BPD procedure to create the biliopancreatic diversion bypass with duodenal switch (BPD/DS), which has significantly diminished the more severe complications of BPD (Sudan, 2011).

The degree of weight loss following bariatric surgery remains variable based on the surgical procedure performed. The biliopancreatic diversion (BPD) has been shown in clinical studies to provide the greatest weight loss. However, the BPD is also noted to have one of the highest complication rates. Both the RYGBP and the SG procedures have been found to produce similar results with rapid weight loss over the first several months followed by slower weight loss for approximately a year to a year and a half. The AGB results in slower weight loss until stabilization is attained by year 2. It has been noted that with the AGB procedure, patients do well initially, but many do not sustain the weight loss. This has resulted in the decrease utilization of ABG in bariatric surgery.

The intragastric balloon (IGB) was developed for use as a temporary aid for obese people who have not had satisfactory results in conservative weight loss treatment for obesity. There are two FDA-approved intragastric balloon devices, the term ‘pediatric’ in reference to a person under the age of 18.

The ASMBS published guidelines on sleeve gastrectomy (SG) as a bariatric procedure. The guidelines stated that substantial long-term outcome data published in the peer reviewed literature, including studies comparing outcomes of various surgical procedures, confirm that SG provides significant and durable weight loss, improvements in medical co-morbidities, improved quality of life, and low complication and mortality rates for obesity treatment. In terms of initial early weight loss and improvement of most weight-related co-morbid conditions, SG and RYGB appear similar. The effect of SG on GERD, however, is less clear, because GERD improvement is less predictable and GERD may worsen or develop de novo. Preoperative counseling specific to GERD-related outcomes is recommended for all patients undergoing SG (ASMBS, 2017).

The ASMBS recognizes SG as an acceptable option for a primary bariatric procedure or as a first-stage procedure in high-risk patients as part of a planned, staged approach. As with any bariatric procedure, long-term weight regain can occur after SG and may require one or more of a variety of reinterventions. Informed consent for SG as a primary procedure should be consistent with the consent provided for other bariatric procedures and, as such, should include the risk of long-term weight regain. In addition, as with all currently recognized bariatric procedures, surgeons performing SG are encouraged to prospectively collect, analyze, and report their outcome data in peer-reviewed scientific forums (ASMBS, 2017).

Two-Stage Bariatric Surgery Procedures
Due to the complexity, risks and complications associated with weight loss surgery, there is a subset of patients that may be considered to be very high-risk. The higher the BMI, the greater the risk. A higher BMI is associated with increased number of pre-existing medical conditions which increase surgical risk. Therefore, patients who are considered super morbidly obese are deemed as the riskiest patients.

Staged bariatric procedures have been proposed as a treatment option primarily for the 'super-obese' patient, defined as having a BMI greater than 50 kg/m2. Staged bariatric procedure refers to a bariatric surgical procedure that is divided into two procedures. The first procedure is considered less of a surgical risk and is a gastric-restrictive procedure which will initiate the weight loss process. This procedure is followed by a malabsorptive surgical procedure once an acceptable weight loss is achieved by the restrictive procedure.

The laparoscopic sleeve gastrectomy was originally utilized as the initial stage of the laparoscopic biliopancreatic diversion with a duodenal switch in super morbidly obese or high-risk patients (Madura and DiBaise, 2012). However, it was observed that several patients who underwent the surgery did not require a second malabsorptive surgery due to significant weight loss.

From a review of 36 studies and 2,570 patients, it was determined that sleeve gastrectomy can be performed safely as a first stage or primary procedure (Brethauer et al. 2009). In 2012, a study reported on the success of the laparoscopic sleeve gastrectomy (LSG) for the super obese patients. The study reported on the longest follow–up LSG (2002-2004) stating the results prove that the procedure is effective, safe, and durable. The mean BMI decreased from 66 kg/m² to 46 kg/m² at 73 months (Eid et al. 2012).

Hayes, Inc.

- Intragastric Balloons for Treatment of Obesity
    - **D2** Rating- For use of intragastric balloons (IGBs), as an adjunct to lifestyle interventions (i.e., diet and exercise), for treatment of obesity in patients unable to lose sufficient weight by conservative means. This Rating reflects inconsistent, low-quality evidence that is insufficient to determine the balance of benefits and harms. Some evidence suggests that IGBs as an adjunct to dietary restrictions and exercise may be associated with greater benefits in weight loss (WL) and quality of life (QOL) compared with lifestyle interventions (diet and exercise) alone. However, any potential for modest benefits may be outweighed by common adverse events such as nausea and vomiting, as well as less common but more severe events that require medical management and/or early device removal. Data for long-term effects are lacking.
    - **D2** Rating - For use of gas-filled IGBs versus saline-filled IGBs, as an adjunct to lifestyle interventions (i.e., diet and exercise), for treatment of obesity in patients unable to lose sufficient weight by conservative means. This Rating is based on very limited evidence suggesting no difference in WL or QOL between the device types.

- **D2** Rating - For use of IGBs versus hyaluronic acid (HA) injections for treatment of obesity in patients unable to lose sufficient weight by conservative means. This Rating is based on very limited evidence suggesting no difference in WL or QOL between the interventions.

Bariatric Surgery in Adolescents

The American Society for Metabolic and Bariatric Surgery (ASMBS) Pediatric Committee released best-practice guidelines for treatment of obese adolescents in 2012. While the guidelines outlined acceptable criteria, the ASMBS stated that the available evidence-based literature was insufficient to identify recommendations for specific bariatric procedures. It was also noted that there is a lack of long-term follow-up on the risks of micronutrient and vitamin deficiencies.

In 2011, Keidar et al., performed a review of bariatric surgery in obese adolescents and indicated that evidenced-based literature was still lacking. The authors also stated that patient selection criteria, appropriate surgical procedures, and the extent of the multidisciplinary preoperative and postoperative care are not defined.

In 2013, Black et al. reported on a systematic review of the current state of peer-reviewed literature on the safety and effectiveness of bariatric surgery in obese adolescents. It was reported that while there were significant decreases in one-year follow-up BMI, the risk of complications has not been well defined and that long-term studies are needed to establish the harms and benefits of bariatric surgery in this patient population. Hofman (2013) reported that the evidence for bariatric surgery in children and adolescents is scare and of poor quality. There are moral issues regarding performance of bariatric surgery in young individuals such as: too young to consent, lack of maturity, treatment endpoints, and hidden interests of patients, parents, professionals, industry, and society. More evidence is needed to be able to balance benefits and risks, provide information for a valid consent or assent, and to advise minors and parents. According to Nobili et al. (2015), weight loss surgery should be the last resort in the pediatric population due to lack of consensus on appropriate bariatric surgical intervention selection criteria.

Research to date has not adequately addressed important issues specific for children and adolescents who may receive bariatric surgery. These issues would include the rate of complications, compliance with therapy, and the potential limitations in the lifespan of surgical interventions and the associated long-term metabolic consequences. Additional research is necessary to address these issues as well as subpopulations of adolescents who might particularly benefit from bariatric surgery.

In October 2019, the American Academy of Pediatrics (AAP) published a document regarding pediatric metabolic and bariatric surgery. The document contains information on the evidence, barriers, and best practices related to pediatric and adolescent bariatric surgery. The policy statement uses the term 'pediatric' in reference to a person under 18 years of age. Adolescent refers to a person from age 13 years to 18 years. Several reports are identified in the article including observational cohort studies, case-control series, retrospective case reports, and expert opinion. It is noted that there is a low prevalence of bariatric surgery in adolescents, and the practical and ethical barriers to randomization are known limitations. Current longitudinal studies evaluating safety and efficacy endpoints do not apply specific age limits for the timing of surgery; thus, there is no evidence to support the application of age-based eligibility limits.

The AAP recommends the following for pediatricians:

- Recognize that severe obesity (BMI ≥ 35 kg/m^2 or ≥ 120% of the 95th percentile for age and sex, whichever is lower) places the adolescent at higher risk for liver disease, type 2 diabetes mellitus,

dyslipidemias, sleep apnea, orthopedic complications, and mental health conditions even when compared with milder degrees of obesity.

- Seek high-quality multidisciplinary centers that are experienced in assessing risks and benefits of various treatments for youth with severe obesity, including bariatric surgery, and provide referrals to where such programs are available.
- Understand the efficacy, risks, benefits, and long-term health implications of the common metabolic and bariatric surgery procedures so that pediatricians can effectively help in family medical decision-making concerning surgical options to manage severe obesity.
- Identify pediatric patients with severe obesity who meet criteria for surgery, and provide timely referrals to comprehensive, multidisciplinary, pediatric-focused metabolic and bariatric surgery programs.
- Coordinate pre- and postoperative care with the patient, family, and multidisciplinary, anesthesia, and surgical teams.

The AAP statement does note that the long-term implications of nutrient deficiency are unknown because most longitudinal studies of pediatric metabolic and bariatric surgery do not manage patients through subsequent pregnancy to assess for related complications. In the footnote section of the article, it states that the guidance statement does not indicate an exclusive course of treatment or serve as a standard of medical care. Variations, taking into account individual circumstance, may be appropriate.

Hayes, Inc.

- Bariatric Surgeries for Treatment of Obesity in Adolescents
  - **C** Rating - For use of vertical sleeve gastrectomy (VSG) in adolescents with severe obesity who have failed to respond to nonsurgical weight loss interventions. This Rating reflects low-quality evidence indicating significant improvements in weight loss and other obesity-associated measures compared with nonsurgical treatment, comparable outcomes relative to Roux-en-Y gastric bypass (RYGB), and comparable outcomes in adolescent versus adult patients who undergo VSG. The Rating also reflects substantial uncertainty regarding long-term efficacy and safety outcomes as well as the comparative effectiveness and safety of VSG relative to other bariatric surgeries in this patient population.
  - **C** Rating - For use of RYGB in adolescents with severe obesity who have failed to respond to nonsurgical weight loss interventions. This Rating reflects low-quality evidence indicating significant improvements in weight loss and other obesity-associated measures compared with nonsurgical treatment, comparable outcomes relative to VSG, and comparable outcomes in adolescent versus adult patients who undergo RYGB. The Rating also reflects substantial uncertainty regarding long-term efficacy and safety outcomes as well as the comparative effectiveness and safety of RYGB relative to other bariatric surgeries in this patient population.
  - **D1** Rating- For use of adjustable gastric band (AGB) in adolescents with severe obesity who have failed to respond to nonsurgical weight loss interventions. This Rating reflects low-quality evidence indicating inferiority compared with other bariatric procedures (RYGB, VSG) and concerns regarding the potential risk of postoperative complications and risk for reoperation.

Bariatric Surgery & Fertility

In a 2017 statement endorsed by the American College of Obstetricians and Gynecologists (ACOG), the ASMBS published a position statement on the impact of obesity and obesity treatment on fertility and fertility therapy. The recommendations noted there is a very high prevalence of obesity among women of childbearing age. Obesity in women is associated with an increased risk of infertility and an increased rate

of complications during every stage of pregnancy. The statement provides that bariatric surgery is effective in achieving significant and sustained weight loss in morbidly obese women and has been shown in case-control studies to improve fertility. Pregnancy is not recommended during the rapid weight loss phase after bariatric surgery. Counseling and follow-up regarding contraception during this period is important. The specific impact of either medical weight-loss treatments or bariatric surgery on the responsiveness to subsequent treatments for infertility in both men and women is not clearly understood at this time.

Coding Requirements

Procedure Codes

CPT code 43843 should not be reported if there is a more specific bariatric surgery code within the code range listed below.

CPT/HCPCS Code	Description
43644	Laparoscopy, surgical, gastric restrictive procedure; with gastric bypass and Roux-en-Y gastroenterostomy (roux limb 150 cm or less)
43645	Laparoscopy, surgical, gastric restrictive procedure; with gastric bypass and small intestine reconstruction to limit absorption
43770	Laparoscopy, surgical, gastric restrictive procedure; placement of adjustable gastric restrictive device (eg, gastric band and subcutaneous port components)
43771	Laparoscopy, surgical, gastric restrictive procedure; revision of adjustable gastric restrictive device component only
43772	Laparoscopy, surgical, gastric restrictive procedure; removal of adjustable gastric restrictive device component only
43773	Laparoscopy, surgical, gastric restrictive procedure; removal and replacement of adjustable gastric restrictive device component only
43774	Laparoscopy, surgical, gastric restrictive procedure; removal of adjustable gastric restrictive device and subcutaneous port components
43775	Laparoscopy, surgical, gastric restrictive procedure; longitudinal gastrectomy (i.e., sleeve gastrectomy)
43842	Gastric restrictive procedure, without gastric bypass, for morbid obesity, vertical banded gastroplasty
43843	Gastric restrictive procedure, without gastric bypass, for morbid obesity, 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	Gastric restrictive procedure, with gastric bypass for morbid obesity; with small intestine reconstruction to limit absorption
43848	Revision, open, of gastric restrictive procedure for morbid obesity, other than adjustable gastric restrictive device (separate procedure)
43860	Revision of gastrojejunal anastomosis (gastrojejunostomy) with reconstruction, with or without partial gastrectomy or intestine resection, without vagotomy
43865	Revision of gastrojejunal anastomosis (gastrojejunostomy) with reconstruction, with or without partial gastrectomy or intestine resection, with vagotomy

43886	Gastric restrictive procedure, open, revision of subcutaneous port component only
43887	Gastric restrictive procedure, open; removal of subcutaneous port component only
43888	Gastric restrictive procedure, open; removal and replacement of subcutaneous port component only
S2083	Adjustment of gastric band diameter via subcutaneous port by injection or aspiration of saline
S9449	Weight management classes, non-physician provider, per session
S9451	Exercise classes, non-physician, per session
S9452	Nutrition classes, non-physician provider, per session
97802	Medical nutrition therapy; initial assessment and intervention, individual, face-to-face with the patient, each 15 minutes
97803	Medical nutrition therapy; re-assessment and intervention, individual, face-to-face with the patient, each 15 minutes
97804	Medical nutrition therapy; group (2 or more individual(s)), each 30 minutes

Diagnosis Codes

One ICD-10 diagnosis code from each Group (1, 2 & 3) below should be selected:

ICD-10 Code	Description
Group 1: Report the primary diagnosis, listed below:	
E66.01	Morbid (severe) obesity due to excess calories
E66.09	Other obesity due to excess calories
E66.2	Morbid (severe) obesity with alveolar hypoventilation
E66.3	Overweight
E66.8	Other obesity
Group 2: Report a secondary diagnosis code to identify the BMI, listed below:	
Z68.35	Body Mass Index (BMI) 35.0 – 35.9 adult
Z68.36	Body Mass Index (BMI) 36.0 – 36.9, adult
Z68.37	Body Mass Index (BMI) 37.0 – 37.9, adult
Z68.38	Body Mass Index (BMI) 38.0 – 38.9, adult
Z68.39	Body Mass Index (BMI) 39.0 – 39.9, adult
Z68.41	Body Mass Index (BMI) 40.0 – 44.9, adult
Z68.42	Body Mass Index (BMI) 45.0 – 49.9, adult
Z68.43	Body Mass Index (BMI) 50 – 59.9, adult
Z68.44	Body Mass Index (BMI) 60.0 – 69.9, adult
Z68.45	Body Mass Index (BMI) 70.0 or greater, adult
Group 3: Report an additional secondary diagnosis code for Z68.35, Z68.36, Z68.37, Z68.38, Z68.39 listed below:	
E11.00	Type 2 diabetes mellitus with hyperosmolarity without nonketotic hyperglycemic-hyperosmolar coma (NKHHC)
E11.01	Type 2 diabetes mellitus with hyperosmolarity with coma
E11.21	Type 2 diabetes mellitus with diabetic nephropathy
E11.22	Type 2 diabetes mellitus with diabetic chronic kidney disease
E11.29	Type 2 diabetes mellitus with other diabetic kidney complication
E11.311	Type 2 diabetes mellitus with unspecified diabetic retinopathy with macular edema
E11.319	Type 2 diabetes mellitus with unspecified diabetic retinopathy without macular edema

E11.3211	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, right eye
E11.3212	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, left eye
E11.3213	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, bilateral
E11.3219	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, unspecified eye
E11.3291	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye
E11.3292	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, left eye
E11.3293	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, bilateral
E11.3299	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye
E11.3311	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, right eye
E11.3312	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, left eye
E11.3313	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, bilateral
E11.3319	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye
E11.3391	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, right eye
E11.3392	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, left eye
E11.3393	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral
E11.3399	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye
E11.3411	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, right eye
E11.3412	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left eye
E11.3413	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral
E11.3419	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye
E11.3491	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye
E11.3492	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye
E11.3493	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilateral
E11.3499	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye

E11.3511	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, right eye
E11.3512	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, left eye
E11.3513	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, bilateral
E11.3519	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified
E11.3521	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye
E11.3522	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye
E11.3523	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral
E11.3529	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified eye
E11.3531	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye
E11.3532	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye
E11.3533	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral
E11.3539	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, unspecified eye
E11.3541	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye
E11.3542	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye
E11.3543	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral
E11.3549	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, unspecified eye
E11.3551	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, right eye
E11.3552	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, left eye
E11.3553	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, bilateral
E11.3559	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, unspecified eye
E11.3591	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye
E11.3592	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, left eye
E11.3593	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, bilateral
E11.3599	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified eye
E11.36	Type 2 diabetes mellitus with diabetic cataract
E11.37X1	Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, right eye

E11.37X2	Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, left eye
E11.37X3	Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, bilateral
E11.39	Type 2 diabetes mellitus with other diabetic ophthalmic complication
E11.40	Type 2 diabetes mellitus with diabetic neuropathy, unspecified
E11.41	Type 2 diabetes mellitus with diabetic mononeuropathy
E11.42	Type 2 diabetes mellitus with diabetic polyneuropathy
E11.43	Type 2 diabetes mellitus with diabetic autonomic (poly)neuropathy
E11.44	Type 2 diabetes mellitus with diabetic amyotrophy
E11.49	Type 2 diabetes mellitus with other diabetic neurological complication
E11.51	Type 2 diabetes mellitus with diabetic peripheral angiopathy without gangrene
E11.52	Type 2 diabetes mellitus with diabetic peripheral angiopathy with gangrene
E11.59	Type 2 diabetes mellitus with other circulatory complications
E11.610	Type 2 diabetes mellitus with diabetic neuropathic arthropathy
E11.618	Type 2 diabetes mellitus with other diabetic arthropathy
E11.620	Type 2 diabetes mellitus with diabetic dermatitis
E11.621	Type 2 diabetes mellitus with foot ulcer
E11.622	Type 2 diabetes mellitus with other skin ulcer
E11.628	Type 2 diabetes mellitus with other skin complications
E11.630	Type 2 diabetes mellitus with periodontal disease
E11.638	Type 2 diabetes mellitus with other oral complications
E11.641	Type 2 diabetes mellitus with hypoglycemia with coma
E11.649	Type 2 diabetes mellitus with hypoglycemia without coma
E11.65	Type 2 diabetes mellitus with hyperglycemia
E11.69	Type 2 diabetes mellitus with other specified complication
E11.8	Type 2 diabetes mellitus with unspecified complications
E11.9	Type 2 diabetes mellitus without complications
E13.00	Other specified diabetes mellitus with hyperosmolarity without nonketotic hyperglycemic-hyperosmolar coma (NKHHC)
E13.01	Other specified diabetes mellitus with hyperosmolarity with coma
E13.10	Other specified diabetes mellitus with ketoacidosis without coma
E13.11	Other specified diabetes mellitus with ketoacidosis with coma
E13.21	Other specified diabetes mellitus with diabetic nephropathy
E13.22	Other specified diabetes mellitus with diabetic chronic kidney disease
E13.29	Other specified diabetes mellitus with other diabetic kidney complication
E13.311	Other specified diabetes mellitus with unspecified diabetic retinopathy with macular edema
E13.319	Other specified diabetes mellitus with unspecified diabetic retinopathy without macular edema
E13.3211	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, right eye
E13.3212	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, left eye
E13.3213	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, bilateral
E13.3219	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, unspecified eye

E13.3291	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye
E13.3292	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, left eye
E13.3293	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, bilateral
E13.3299	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye
E13.3311	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, right eye
E13.3312	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, left eye
E13.3313	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, bilateral
E13.3319	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye
E13.3391	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, right eye
E13.3392	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, left eye
E13.3393	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral
E13.3399	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye
E13.3411	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, right eye
E13.3412	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left eye
E13.3413	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral
E13.3419	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified
E13.3491	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye
E13.3492	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye
E13.3493	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilateral
E13.3499	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye
E13.3511	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema, right eye
E13.3512	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema, left eye
E13.3513	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema, bilateral
E13.3519	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified

E13.3521	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye
E13.3522	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye
E13.3523	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral
E13.3529	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified
E13.3531	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye
E13.3532	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye
E13.3533	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral
E13.3539	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, unspecified
E13.3541	Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye
E13.3542	Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye
E13.3543	Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral
E13.3549	Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, unspecified
E13.3551	Other specified diabetes mellitus with stable proliferative diabetic retinopathy, right eye
E13.3552	Other specified diabetes mellitus with stable proliferative diabetic retinopathy, left eye
E13.3553	Other specified diabetes mellitus with stable proliferative diabetic retinopathy, bilateral
E13.3559	Other specified diabetes mellitus with stable proliferative diabetic retinopathy, unspecified
E13.3591	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye
E13.3592	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, left eye
E13.3593	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, bilateral
E13.3599	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified
E13.36	Other specified diabetes mellitus with diabetic cataract
E13.37X1	Other specified diabetes mellitus with diabetic macular edema, resolved following treatment, right eye

E13.37X2	Other specified diabetes mellitus with diabetic macular edema, resolved following treatment, left eye
E13.37X3	Other specified diabetes mellitus with diabetic macular edema, resolved following treatment, bilateral
E13.37X9	Other specified diabetes mellitus with diabetic macular edema, resolved following treatment, unspecified
E13.39	Other specified diabetes mellitus with other diabetic ophthalmic complication
E13.40	Other specified diabetes mellitus with diabetic neuropathy, unspecified
E13.41	Other specified diabetes mellitus with diabetic mononeuropathy
E13.42	Other specified diabetes mellitus with diabetic polyneuropathy
E13.43	Other specified diabetes mellitus with diabetic autonomic (poly)neuropathy
E13.44	Other specified diabetes mellitus with diabetic amyotrophy
E13.49	Other specified diabetes mellitus with other diabetic neurological complication
E13.51	Other specified diabetes mellitus with diabetic peripheral angiopathy without gangrene
E13.52	Other specified diabetes mellitus with diabetic peripheral angiopathy with gangrene
E13.59	Other specified diabetes mellitus with other circulatory complications
E13.610	Other specified diabetes mellitus with diabetic neuropathic arthropathy
E13.618	Other specified diabetes mellitus with other diabetic arthropathy
E13.620	Other specified diabetes mellitus with diabetic dermatitis
E13.621	Other specified diabetes mellitus with foot ulcer
E13.622	Other specified diabetes mellitus with other skin ulcer
E13.628	Other specified diabetes mellitus with other skin complications
E13.630	Other specified diabetes mellitus with periodontal disease
E13.638	Other specified diabetes mellitus with other oral complications
E13.641	Other specified diabetes mellitus with hypoglycemia with coma
E13.649	Other specified diabetes mellitus with hypoglycemia without coma
E13.65	Other specified diabetes mellitus with hyperglycemia
E13.69	Other specified diabetes mellitus with other specified complication
E13.8	Other specified diabetes mellitus with unspecified complications
E13.9	Other specified diabetes mellitus without complications
E66.2	Morbid (severe) obesity with alveolar hypoventilation
E78.00	Pure hypercholesterolemia, unspecified
E78.1	Pure hyperglyceridemia
E78.2	Mixed hyperlipidemia
E78.3	Hyperchylomicronemia
E78.49	Other hyperlipidemia
E78.5	Hyperlipidemia, unspecified
G47.33	Obstructive sleep apnea (adult) (pediatric)
G47.36	Sleep related hypoventilation in conditions classified elsewhere
G93.2	Benign intracranial hypertension
I10	Essential (primary) hypertension
I27.20	Pulmonary Hypertension, unspecified
I27.21	Secondary pulmonary arterial hypertension
I27.22	Pulmonary hypertension due to left heart disease
I27.23	Pulmonary hypertension due to lung diseases and hypoxia
I27.24	Chronic thromboembolic pulmonary hypertension
I27.29	Other secondary pulmonary hypertension

I43	Cardiomyopathy in diseases classified elsewhere
K21.00*	Gastro-esophageal reflux disease with esophagitis, without bleeding
K21.01*	Gastro-esophageal reflux disease with esophagitis, with bleeding
K75.81	Nonalcoholic steatohepatitis (NASH)
Report ONE or more of the following codes for surgical revisions or replacement procedures (43771, 43772, 43373, 43774, 43848, 43860, 43865, 43886, 43887, & 43888):	
K95.01	Infection due to gastric band procedure
K95.09	Other complications of gastric band procedure
K95.81	Infection due to other bariatric procedure
K95.89	Other complications of other bariatric procedure
Z46.51	Encounter for fitting and adjustment of gastric lap band
Z98.84	Bariatric surgery status

*ICD-10 codes K21.00 and K21.01are not covered for procedure code 43770.

Informational

Body Mass Index Charts were adapted from the clinical guidelines for the identification, evaluation, and treatment of overweight and obese adults and were prepared by the National Institutes of Health (NIH), National Heart, Lung, and Blood Institute. To use this table, find the appropriate height in the left-hand column. Move across the row to a given weight. The number at the top of the column is the BMI for the selected height and weight. Pounds have been rounded off.

Body Mass Index (BMI) chart for up to 287 pounds

BMI

Height (inches)	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
58	91	96	100	105	110	115	119	124	129	134	138	143	148	153	158	162	167
59	94	99	104	109	114	119	124	128	133	138	143	148	153	158	163	168	173
60	97	102	107	112	118	123	128	133	138	143	148	153	158	163	168	174	179
61	100	106	111	116	122	127	132	137	143	148	153	158	164	169	174	180	185
62	104	109	115	120	126	131	136	142	147	153	158	164	169	175	180	186	191
63	107	113	118	124	130	135	141	146	152	158	163	169	175	180	186	191	197
64	110	116	122	128	134	140	145	151	157	163	169	174	180	186	192	197	204
65	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210
66	118	124	130	136	142	148	155	161	167	173	179	186	192	198	204	210	216
67	121	127	134	140	146	153	159	166	172	178	185	191	198	204	211	217	223
68	125	131	138	144	151	158	164	171	177	184	190	197	203	210	216	223	230
69	128	135	142	149	155	162	169	176	182	189	196	203	209	216	223	230	236
70	132	139	146	153	160	167	174	181	188	195	202	209	216	222	229	236	243
71	136	143	150	157	165	172	179	186	193	200	208	215	222	229	236	243	250
72	140	147	154	162	169	177	184	191	199	206	213	221	228	235	242	250	258
73	144	151	159	166	174	182	189	197	204	212	219	227	235	242	250	257	265
74	148	155	163	171	179	186	194	202	210	218	225	233	241	249	256	264	272
75	152	160	168	176	184	192	200	208	216	224	232	240	248	256	264	272	279

76	156	164	172	180	189	197	205	213	221	230	238	246	254	263	271	279	287
	Body Weight (pounds)																

Body Mass Index chart for up to 443 pounds

BMI

Height (inches)	**36**	**37**	**38**	**39**	**40**	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**	**49**	**50**	**51**	**52**	**53**	**54**
58	172	177	181	186	191	196	201	205	210	215	220	224	229	234	239	244	248	253	258
59	178	183	188	193	198	203	208	212	217	222	227	232	237	242	247	252	257	262	267
60	184	189	194	199	204	209	215	220	225	230	235	240	245	250	255	261	266	271	276
61	190	195	201	206	211	217	222	227	232	238	243	248	254	259	264	269	275	280	285
62	196	202	207	213	218	224	229	235	240	246	251	256	262	267	273	278	284	289	295
63	203	208	214	220	225	231	237	242	248	254	259	265	270	278	282	287	293	299	304
64	209	215	221	227	232	238	244	250	256	262	267	273	279	285	291	296	302	308	314
65	216	222	228	234	240	246	252	258	264	270	276	282	288	294	300	306	312	318	324
66	223	229	235	241	247	253	260	266	272	278	284	291	297	303	309	315	322	328	334
67	230	236	242	249	255	261	268	274	280	287	293	299	306	312	319	325	331	338	344
68	236	243	249	256	262	269	276	282	289	295	302	308	315	322	328	335	341	348	354
69	243	250	257	263	270	277	284	291	297	304	311	318	324	331	338	345	351	358	365
70	250	257	264	271	278	285	292	299	306	313	320	327	334	341	348	355	362	369	376
71	257	265	272	279	286	293	301	308	315	322	329	338	343	351	358	365	372	379	386
72	265	272	279	287	294	302	309	316	324	331	338	346	353	361	368	375	383	390	397
73	272	280	288	295	302	310	318	325	333	340	348	355	363	371	378	386	393	401	408
74	280	287	295	303	311	319	326	334	342	350	358	365	373	381	389	396	404	412	420
75	287	295	303	311	319	327	335	343	351	359	367	375	383	391	399	407	415	423	431
76	295	304	312	320	328	336	344	353	361	369	377	385	394	402	410	418	426	435	443
	Body Weight (pounds)																		

Classification of Overweight and Obesity by BMI in Adults

	BMI	**Obesity Class**
Underweight	<18.5 kg/m²	
Normal weight	18.5 – 24.9 kg/m²	
Overweight	25.0 – 29.9 kg/m²	
Obese	30.0 – 34.9 kg/m²	I
Obese	35.0 – 39.9 kg/m²	II
Extremely obese	40.0 and higher kg/m²	III

Classification of Obesity in Adolescents

Class II Obesity	120% of the 95th percentile height, or an absolute BMI of 35 – 39.9 kg/m^2, whichever is lower
Class III Obesity	140% of the 95th percentile height, or an absolute BMI of ≥40 kg/m^2, whichever is lower

The American Society of Metabolic and Bariatric Surgeons, 2018

Reimbursement

Participating facilities will be reimbursed per their Highmark Wholecare℠ contract.

Reference Sources

Action on Smoking and Health Fact Sheet "Smoking and surgery". March 2014. Accessed February 12, 2016.

American Society for Metabolic and Bariatric Surgery (ASMBS). ASMBS position statement on the rationale for performance of upper gastrointestinal endoscopy before and after metabolic and bariatric surgery. March 10, 2021. Accessed on December 14, 2021.

American Society for Metabolic and Bariatric Surgery (ASMBS). Clinical practice guidelines for the perioperative nutrition, metabolic, and nonsurgical support of patients undergoing bariatric procedures – 2019 update. 2020. Accessed on December 15, 2021.

American Society for Metabolic and Bariatric Surgery (ASMBS). Emerging Technologies and Clinical Issues Committees of the ASMBS. American Society for Metabolic and Bariatric Surgery Position Statement on emerging endosurgical interventions for treatment of obesity. January 2009. Accessed on November 17, 2020.

American Society for Metabolic and Bariatric Surgery (ASMBS). Updated Position Statement on Sleeve Gastrectomy as a Bariatric Procedure. Revised August 4, 2017. Accessed on December 15, 2021.

Black JA, White B, Viner RM, Simmons RK. Bariatric surgery for obese children and adolescents: a systematic review and meta-analysis. Obes Rev. 2013; 14(8):634-44. Accessed on February 10, 2016.

Blackburn GL, Hutter MM, Harvey AM, et al. Expert panel on weight loss surgery: Executive report update. Obesity. 2009; 17(5):842–862.

Dielen F, Soeters PB, Greve JW. Laparoscopic Adjustable Gastric Banding versus Open Vertical Banded Gastroplasty: A Prospective Randomized Trial. Obesity Surgery. November 2005. Accessed on November 29, 2016.

Ferreira LM. Vertical Banded Gastroplasty: What You Need To Know. Obesity News Today. 2013-2017. Accessed on November 29, 2017.

Fink JF, Kole KL, Yenumula PR, et al. Predicting risk for serious complications with bariatric surgery: results from the Michigan Bariatric Surgery Collaborative. Ann Surg. 2011 Oct; 254(4):633-40. Doi: 10.1097/SLA.0b013e318230058c. Accessed on February 12, 2016.

Hofman B. Bariatric surgery for obese children and adolescents: a review of the moral challenges. BMC Medical Ethics, 14:18. doi:10.1186/1472-6939-14-18. 2013. Accessed on February 10, 2016.

International Sleeve Gastrectomy Expert Panel Consensus Statement: best practice guidelines based on experience of 12,000 cases. Surgery for Obesity and Related Diseases. 2012. Accessed on February 10, 2016.

Keidar A, Hect L, Weiss R. Bariatric surgery in obese adolescents. Curr Opin Clin Nutr Metab Care. 2011; 14(3):286-90. Accessed on February 10, 2016.

Michalsky MP, et al. Cardiovascular risk factors in severely obese adolescents. JAMA Pediatrics. doi:10.1001/jamapediatrics.2014.3690. 2015. Accessed on February 10, 2016.

Nobili V, et al. Indications and limitations of bariatric intervention in severely obese children and adolescents with and without non-alcoholic steatohepatitis. Journal of Pediatric Gastroenterology and Nutrition. doi:10.1097/MPG.0000000000000715. 2015. Accessed on February 10, 2016.

Still CD, Benotti P, Wood GC. Outcomes of Preoperative Weight Loss in High-Risk Patients Undergoing Gastric Bypass Surgery. Arch Surg, 142(10):994-998. October 1, 2007Accessed on November 21, 2017.

Sudan R, Jacobs DO. Biliopancreatic Diversion with Duodenal Switch. Surgical Clinics of North America 91(6):1281-93, ix; December 2011. Accessed on November 29, 2017.

U.S. National Institutes of Health (NIH). ClinicalTrials.gov. A Prospective, Randomized Multicenter Study to Evaluate the Safety and Efficacy of the ReShape Duo™ Intragastric Balloon System in Obese Subjects. ClinicalTrials.gov Identifier: NCT01673698. Accessed February 10, 2016.

National Institute of Health (NIH). National Institute of Diabetes and Digestive and Kidney Diseases. Weight-loss (Bariatric) Surgery. September 2020. Accessed on December 15, 2021.

Windover AK. Tobacco use in bariatric patients. Bariatric Times. 2013; 10(1):8-11. Accessed on February 12, 2016.

Wilson JA, Romagnuolo J, Byrne TK, et al. Predictors of endoscopic findings after Roux-en-Y gastric bypass. Am J Gastroent. 2006; 101:2194–2199.

Brethauer SA, Hammel JP, Schauer PR. Systemic review of sleeve gastrectomy as staging and primary bariatric procedure. Surgery for obesity and Related Diseases. 5(2009); 469-475. Accessed on January 4, 2019.

Eid GM, Brethauer S, Mattar SG, Titchner RL, Gourash W, Schauer PR. Laparoscopic sleeve gastrectomy for super obese patients: forty-eight percent excess weight loss after 6 to 8 years with 93% follow-up. August 2012; 256(2):262-265. Accessed on January 4, 2019.

Madura JA, DiBaise JK. Quick fix or long-term cure? Pros and cons of bariatric surgery. F1000 Med Rep;4:19. October 2, 2012. Accessed on January 7, 2019.

American Academy of Pediatrics (AAP). Policy Statement: Pediatric metabolic and bariatric surgery: evidence, barriers, and best practices. Pediatrics. October 2019. Accessed on December 17, 2019.

American Society for Metabolic and Bariatric Surgery (ASMBS). Updated position statement on sleeve gastrectomy as a bariatric procedure. Surgery for Obesity and Related Diseases. 27: 1652- 1657. 2017. Accessed on November 17, 2020.

American Society for Metabolic and Bariatric Surgery (ASMBS). Position statement on the impact of obesity and obesity treatment on fertility and fertility therapy Endorsed by the American College of Obstetricians and Gynecologists and the Obesity Society. Surg Obes Relat Dis. May 2017. Accessed on November 17, 2020.

Hayes, Inc. Comparative Effectiveness Review of Bariatric Surgeries for Treatment of Obesity in Adolescents. January 21, 2019. Annual review January 20, 2022. Accessed on September 13, 2022.

Hayes, Inc. Health Technology Assessment. Intragastric Balloons for Treatment of Obesity. March 29, 2018. Annual review March 16, 2022. Accessed on September 13, 2022.

The Centers for Medicare and Medicaid Services (CMS). National Coverage Determination (NCD) Bariatric Surgery for Treatment of Co-Morbid Conditions Related to Morbid Obesity (100.1). Effective date September 24, 2013. Implementation date December 17, 2013. Accessed on September 13, 2022.

The Centers for Medicare and Medicaid Services (CMS). Local Coverage Determination (LCD) Bariatric Surgical Management of Morbid Obesity (L35022). Original Effective date October 1, 2015. Revision Effective date May 13, 2021. Accessed on September 13, 2022.

The Centers for Medicare and Medicaid Services (CMS). Local Coverage Article (LCA) Billing and Coding: Bariatric Surgical Management of Morbid Obesity (A56422). Original Effective date March 28, 2019. Revision Effective date October 1, 2021. Accessed on September 13, 2022.