indicated as an adjunct to a reduced-calorie diet and exercise for chronic weight management. Clinical trials showed that average weight loss after 1 year of 10.9% for patients receiving the maximum dose (phentermine/topiramate, 15 mg/92 mg) and 5.1% for those taking the recommended starting dose (3.75 mg/23 mg). The drug is taken once daily in the morning to avoid insomnia caused by the phentermine component. The initial dose of 3.75 mg/23 mg is given for 2 weeks before titration to 7.5 mg/46 mg for another 12 weeks. If a patient has not lost at least 3% of baseline body weight on the higher dosage, the drug may be discontinued or the dose may be escalated to 11.25 mg/69 mg for an additional 2 weeks before a further increase to the maximum dose of 15 mg/92 mg. If a patient has not lost at least 5% of baseline body weight after 12 weeks, the drug is discontinued gradually. Side effects include paresthesias, dry mouth, constipation, metabolic acidosis, nasopharyngitis, upper respiratory infection, and headache.

Data indicate that fetuses exposed during the first trimester to topiramate (when used alone as an anticonvulsant) have an increased risk (9.6%) of cleft lip with or without cleft palate. Therefore, the drug should not be given to women of childbearing age unless an effective method of contraception is used and a pregnancy test is conducted monthly during use. Phentermine/topiramate may increase resting heart rate up to 20 beats/minute, so the drug should be used cautiously in patients with a history of cardiac or cerebrovascular disease. Topiramate also increases the risk of suicidal thoughts or behaviors and mood disorders including depression, anxiety, and insomnia. It can also cause cognitive dysfunction, including impairment of concentration or attention, difficulty with memory, and speech or language problems, particularly word-finding difficulties. It is contraindicated in patients with closed-angle glaucoma because it increases intraocular pressure and the risk of permanent loss of vision.

Contrave is a combination of Bupropion and Naltrexone just approved by the FDA for weight loss (Medical Letter November 10, 2014).

Bariatric Surgery

At present, there are three broad categories of bariatric surgical procedures: (1) pure gastric restriction; (2) gastric restriction with some malabsorption, as represented by the Roux-en-Y gastric bypass (RYGB) procedure; and (3) gastric restriction with significant intestinal malabsorption (discussed later). The number of bariatric procedures performed in the United States increased from an estimated 13,365 in 1998 to almost 220,000 in 2008. Bariatric surgery is considered to be indicated for adults with class 3 obesity (BMI ≥40 kg/m^2). In patients with less severe obesity (BMI 35 to 40 kg/m^2), bariatric surgery can be considered if there are one or more high-risk comorbid conditions present, such as life-threatening cardiopulmonary disease (e.g., severe sleep apnea, obesity-related cardiomyopathy) or uncontrolled T2DM. Bariatric surgery is sometimes performed for patients with diabetes or metabolic syndrome and a BMI of 30 to 35 kg/m^2, although current evidence on benefit is limited. For teenagers younger than 17 years old who have attained skeletal maturity (usually by 13 years for girls and 15 years for boys), bariatric surgery has been recommended with different guidelines: BMI 35 to 40 kg/m^2 with at least one serious comorbid condition (e.g., T2DM, obstructive sleep apnea, pseudotumor cerebri) or BMI 50 kg/m^2 or higher with less serious comorbidities. Contraindications for bariatric surgery include high operative risk (e.g., congestive heart failure, unstable angina), active substance abuse, and significant psychopathology.

Different types of commonly used bariatric procedures are shown in Figure 67-1. Gastric restriction procedures induce weight loss by producing early satiety and limiting food intake. Gastric restriction by vertical banded gastroplasty (VBG) typically limits the volume of the upper gastric pouch into which the esophagus empties to 15 to 45 mL and restricts the pouch outlet to the remaining stomach to 10 to 11 ml. Currently, the laparoscopic adjustable gastric band (LAGB) has almost completely replaced the VBG procedure, because it is less invasive, adjustable, and reversible and has better outcomes.

LAGB is associated with substantially better maintenance of weight loss than lifestyle intervention alone, and it carries a very low operative mortality rate (0.1%). However, it is associated with significantly lower loss of excess weight at 5 years and 10 years and with smaller reductions in fat-free mass compared with RYGB. LAGB has been demonstrated to be safe in patients older than 55 years of age. Complications associated with the LAGB procedure include band slippage, band erosion, balloon failure, injection port malposition, band and port infections, and esophageal dilatation. Some of these problems have been decreased by use of a different method of band insertion and revision of the port connection. Overall, complication and

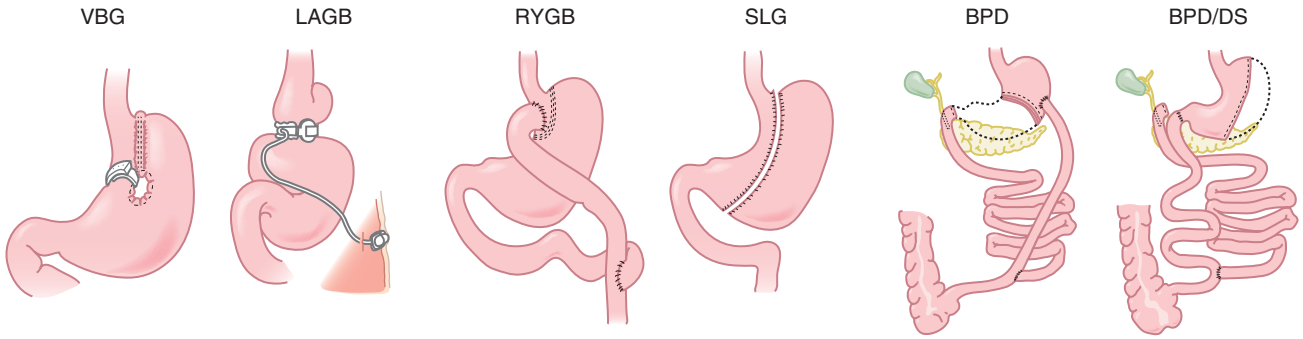

FIGURE 67-1 Common bariatric procedures. BPD, Biliopancreatic diversion; VBG, Vertical banded gastroplasty; LAGB, laparoscopic adjustable gastric band; RYGB, Roux-en-Y gastric bypass; SLG, sleeve gastrectomy; BPD, biliopancreatic diversion; BPD/DS, BPD with duodenal switch.