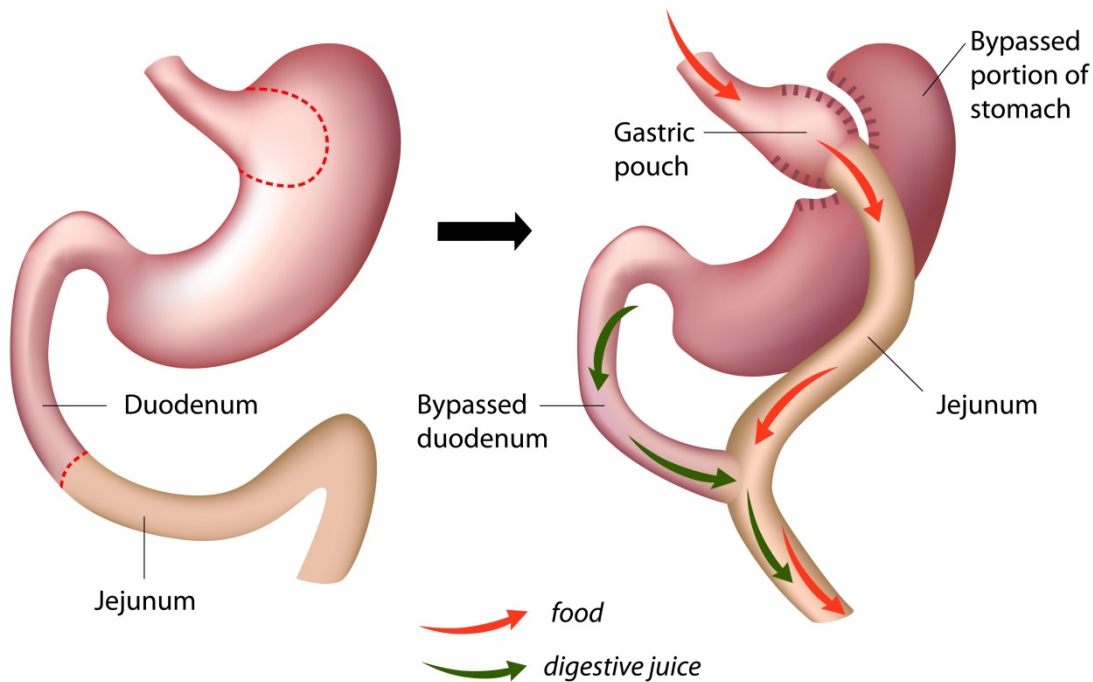


Roux-en-Y Gastric Bypass (RNY)



Roux-en-Y gastric bypass (RYGB), commonly called simply “gastric bypass”, is of the most popularly performed bariatric procedures worldwide and has long been considered the “gold standard” of bariatric surgery. The gastric bypass was first reported in 1967 and was performed as open surgery for several decades. However, today, it is almost entirely performed laparoscopically.

The operative procedure involves staple dividing the stomach into two chambers, a very small proximal gastric pouch of about 30 cc and the excluded distal remnant. The remnant is excluded from alimentary transit. The proximal gastric pouch is (anastomosed) connected to the proximal jejunum (roux limb). A second anastomosis is made between the distal roux limb and the proximal jejunum (biliopancreatic limb) that drains the secretions from the excluded gastric remnant, duodenum, liver and pancreas. This connection enables the digestive fluids to meet the ingested food to enable nutrient breakdown and absorption. The distance between the 2 connection can vary by surgeon preference but is generally 50 to 150 cm.

After the procedure is completed, food advances directly from the gastric pouch to the small intestine without passing through the distal portion of the stomach, duodenum and proximal jejunum (Figure). This gastric bypass is thought to have several mechanisms of action. It restricts the

oral food intake and re-routes the transit of food inducing metabolic and hormonal changes that reduce appetite, increase satiety and energy expenditure.

The maximum effect in terms of weight loss is normally observed during the first two years. During this period of time, morbidly obese patients can lose a mean of 65 to 75 percent of their excess weight. Seventy five to 85% of patients will maintain at least a 50% excess weight loss long-term. Several obesity-associated conditions Different diseases such as type 2 diabetes, hypertension, dyslipidemia, metabolic syndrome, fatty liver disease and obstructed sleep apnea will resolve or improve after gastric bypass surgery. In fact, more than 50% of patients with type 2 diabetes will experience normalization of their blood sugar levels and will either be off all of their antidiabetic medications or markedly less medications.

At high volume bariatric centers, the risk of postoperative complications is low. The risk of mortality is less than 0.2% and the risk of severe complications such as bleeding, infections and thromboembolism is less than 5%. However, the gastric bypass procedure can result in significant risk of vitamin and mineral deficiencies including Iron, vitamin B12, calcium, vitamin D and folate). Therefore, as with all bariatric procedures, the patients who undergo gastric bypass require life-long surveillance and vitamin and mineral supplementation.