UW Medicine
UNIVERSITY OF WASHINGTON MEDICAL CENTER

Weight Loss Surgery

Divided proximal roux-y-gastric bypass, laparoscopic adjustable gastric banding, and laparoscopic sleeve gastrectomy.

This section of the Guide to Your Weight Loss Surgery explains the types of weight loss surgery that are done at UWMC. It also includes the benefits and risks of each type.

What is bariatric surgery?

UWMC offers 3 types of weight loss surgery. They are:

- *Divided proximal roux-y gastric bypass* (RYGB)
- *Laparoscopic adjustable gastric banding* (LAGB)
- *Laparoscopic sleeve gastrectomy* (LSG)

Your weight loss surgery will be done in the Surgical Specialties Center.

Gastric Bypass Surgery

Divided proximal roux-y gastric bypass (RYGB), also called gastric bypass surgery, divides the stomach into 2 sections:

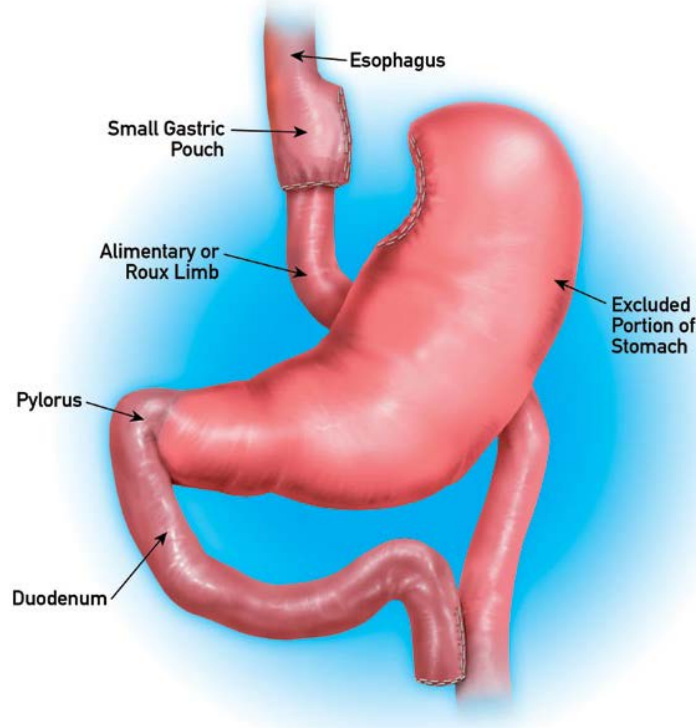
- The small section, called the "pouch," is connected to your small intestine.
  The pouch becomes your new smaller stomach. It limits the amount of food you can eat easily.
- The large section of your stomach, called the "remnant stomach," will stay in place, but your body will not use it.

Compared to other bariatric procedures, RYGB results in:

- Quicker improvement in blood sugar control (for people with diabetes)
- Quicker decrease in symptoms of gastric reflux
- Greater average weight loss

RYGB surgery bypasses about 90% of the stomach, so only 10% holds food. A 3-foot to 5-foot length of intestine is connected from the small stomach pouch to the rest of the intestines. Another 9 to 15 feet of intestines is still used to digest and absorb food from the small stomach pouch.

Because the smaller stomach holds less food, this surgery helps you feel full more quickly – but you must still eat less to lose weight.



Divided proximal roux-y gastric bypass (RYGB)

Laparoscopic or Open Surgery?

Laparoscopic Surgery

Most bariatric surgeries are done using a device called a *laparoscope*. A laparoscope consists of a camera that guides small instruments that go into the abdomen through several narrow tubes or ports. The surgeon's hands do not go inside the abdomen. In this surgery, 4 to 5 small incisions are made, instead of 1 large incision.

Compared to open some of the benefits of laparoscopic surgery are:

- Fewer wound problems, such as infection and hernias
- Less pain after the first week
- Shorter hospital stay and quicker recovery
- Quick return of bowel function
- Fewer heart and lung problems

Your surgeon will determine whether a laparoscopic operation is best for you.

Open Surgery

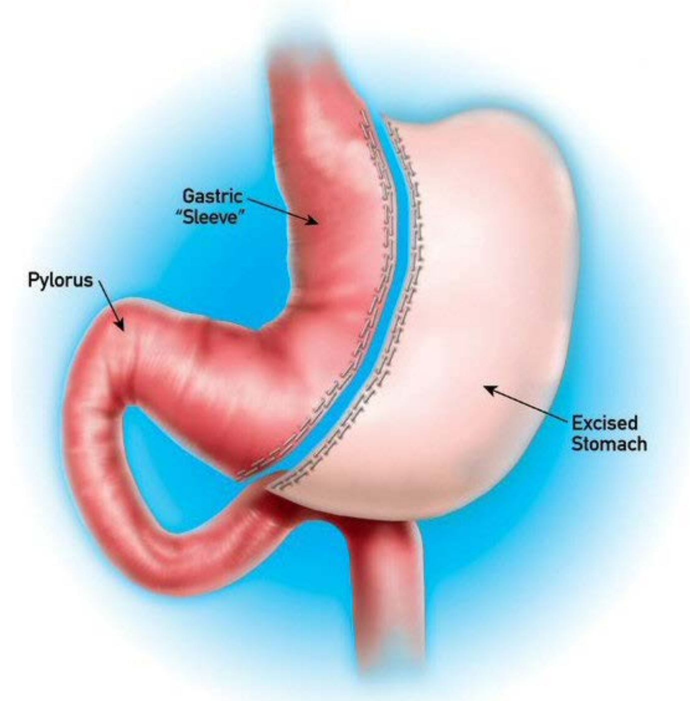
If your surgeon believes that laparoscopic surgery is not possible, an open operation will be done. In this surgery, an 8-inch to 12-inch incision is made down the middle of the abdomen (near the breastbone) to the belly button.

Sleeve Gastrectomy

Sleeve gastrectomy (also called *vertical* sleeve gastrectomy) is another type of weight loss surgery.

In this surgery, 85% to 90% of the stomach is permanently removed by stapling and dividing it vertically. The stomach that is left is in the shape of a slim banana or a sleeve (see drawing below).

Removing a large part of the stomach reduces the amount of food you can eat. It may also affect the hormone called *ghrelin* that controls appetite.



Sleeve gastrectomy

Weight loss with a sleeve gastrectomy is quicker than with a laparoscopic adjustable gastric banding (LAGB) but slower than with RYGB. As with the other surgeries, you must eat less to lose weight. Expected weight loss with a sleeve gastrectomy may be less than a gastric bypass and more than a gastric banding surgery.

Laparoscopic Adjustable Gastric Banding (LAGB)

In *laparoscopic adjustable gastric banding* (LAGB), also called "lap band," an adjustable band is placed around the top part of your stomach. This band is connected to a small port and tubing (see drawing below). These are placed under the skin of your abdomen.

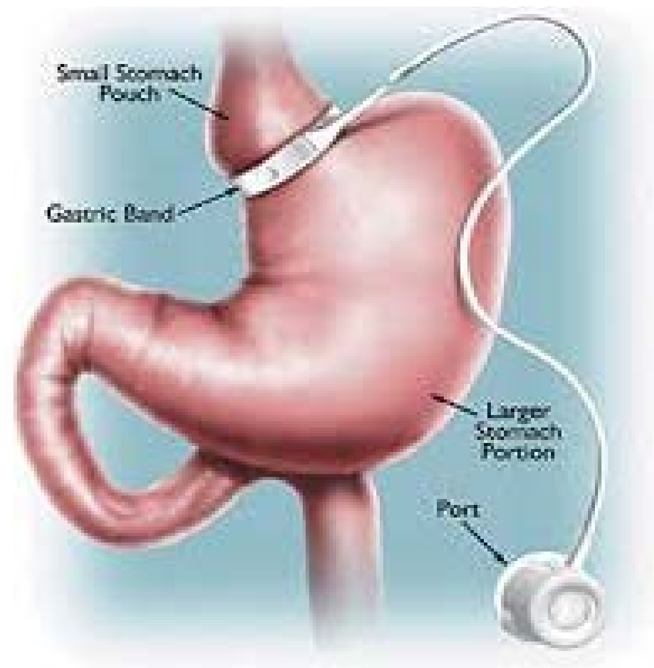
A syringe and needle are used to fill the port with water or saline, or to empty it to adjust the size of the band, as needed. Adjusting the band creates a feeling of restriction and fullness. This helps you control your hunger and how much you can eat.

After LAGB surgery, you will need to be closely monitored by the Center for Bariatric Surgery team for the rest of your life. At your clinic visits, the port may be filled or emptied to adjust the band to the right size.

The band will help with weight loss, but you must also eat less and exercise to lose weight. People who have the most success with the lap band are those who are able to exercise and have had success in the past with dieting.

Comparing Lap Band, Gastric Bypass, and Gastric Sleeve Surgeries

- Weight loss with a lap band is slower than with gastric bypass and gastric sleeve surgery.
- Lap band patients lose about 30% to 50% less weight than bypass patients.
- Lap band placement is a shorter surgery and has fewer risks than a gastric bypass.



The lap band system and port are placed during laparoscopic adjustable gastric banding, also called "lap-band" surgery.

What are the risks?

All surgeries have risks. Your risks with weight loss surgery will depend on your age and other health problems.

Risks for the Open or Laparoscopic Gastric Bypass

- Death: 0.5% to 3% (1 to 6 patients out of 200)
- Leak where the stomach and/or bowel are connected: 1% to 5% (1 to 5 patients out of 100)
- Bleeding: 1% to 5% (1 to 5 patients out of 100)
- Blood clot in the lungs: 0.5% to 1% (1 or fewer patients out of 100)
- Bowel blockage or obstruction: 5% to 10% (5 to 10 patients out of 100)
- Need for re-operation: 10% (10 patients out of 100)
- Laparoscopic bypass:
  - Wound infection: less than 2% (fewer than 2 patients out of 100)
  - Incisional hernia: less than 2% (fewer than 2 patients out of 100)
- Open bypass:
  - Wound infection: 10% to 20% (10 to 20 patients out of 100)
  - Incisional hernia: 10% to 23% (10 to 23 patients out of 100)

Risks for the Vertical Sleeve Gastrectomy

- Death: 0.1% (1 or fewer patients out of 100)
- Leak from stomach: 1% to 3% (1 to 3 patients out of 100)
- Bleeding: 1% to 2% (1 to 2 patients out of 100)
- Infection: 1% to 2% (1 to 2 patients out of 100)
- Blood clot in the lungs: 0.5% to 1% (1 or fewer patients out of 100)
- Need for re-operation: 1% to 5% (1-5 patients out of 100)
- Increased acid reflux: 10% (10 patients out of 100)
- Trouble swallowing or *stricture* (narrowing of the remaining stomach: 5% (5 patients out of 100)
- Increased acid reflux (heartburn)

Risks for the Laparoscopic Adjustable Gastric Band (Lap-Band)

- Death: 0.05% to 0.1% (1 or fewer patients out of 100)
- Band erosion: 1% to 3% (1 to 3 patients out of 100)
- Band slipping: about 5% (about 5 patients out of 100)
- Port site infection: about 2% (about 2 patients out of 100)
- Blood clot in the lungs: 0.5% to 1% (1 or fewer patients out of 100)
- Need for re-operation: 30% (30 patients out of 100)
- Failure to lose the desired amount of weight.

What You Need to Know

- Gastric bypass surgery and vertical sleeve gastrectomy surgery **cannot** be reversed.
- Total weight loss for each surgery varies. Of the 3 options, expect the least amount of weight loss with lap band surgery.
- After any weight loss surgery:
  - You will need to take vitamin and nutritional supplements for the rest of your life.
  - You may be more sensitive to alcohol.
  - If you are a woman, you have a greater chance for unplanned pregnancy and for problems with pregnancy in the first year after surgery.

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Questions?

Your questions are important. Call your doctor or health care provider if you have questions or concerns. UWMC clinic staff are also available to help.

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