Bariatric Weight Loss Surgery
Weight loss surgery, also known as bariatric surgery, was developed as a tool to help people with morbid obesity reduce or eliminate weight-related health problems through weight loss. Morbid obesity is a condition in which excess weight is believed to have an adverse impact on health and daily activities.

Excess weight can cause or worsen many health problems such as: type 2 diabetes, coronary heart disease, high blood pressure, obstructive sleep apnea, esophageal reflux, urinary incontinence, asthma, or blood clots. It can also cause musculoskeletal problems such as arthritis, infertility, depression, cancer, social, and economic problems.
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Primary Bariatric Surgeries Offered at The University of Vermont Medical Center

**GASTRIC BYPASS**

Gastric Bypass surgery, also known as Roux-en-Y gastric bypass (RYGB), slows the absorption of food and decreases calorie intake by creating a small stomach pouch. The pouch holds 3 to 5 ounces of food. The remainder of the stomach is not removed, but is completely stapled shut and divided from the stomach pouch. The outlet from this newly formed pouch empties directly into the middle portion of the small intestine, thus bypassing calorie absorption and the duodenum (the first portion of the small intestine).

You can expect to lose 75% of your excess body weight within three years after surgery. After gastric bypass surgery, you can expect to stay at the UVM Medical Center for a minimum of two days.

**GASTRIC BANDING OR LAP BAND**

The Lap Band surgery is performed laparoscopically. Laparoscopic bariatric surgery is a less invasive approach where instruments, inserted through small incisions in the abdomen, are guided by the surgeon using a camera at the end of the instrument to perform the surgery from a television monitor. After Lap-Band® surgery, there is a minimal overnight stay at the UVM Medical Center.

Lap-Band® or gastric band surgery involves a silicone ring placed around the upper part of the stomach. The balloon inside the ring is then inflated to create a small pouch (approximately 20cc or 4 teaspoons). The balloon can be inflated to restrict the amount of food entering the stomach or deflated to correct for over-restriction. This makes you feel fuller sooner (early satiety) when eating regular high quality food.

The band can be adjusted by injecting saline (salt water) into a port that is placed in the abdomen just under the skin to increase or decrease the restriction. The port is not visible but can be felt by firm pressure with the fingers. Patients may lose 50-60% of excess body weight within three years.

**GASTRIC SLEEVE GASTRECTOMY WITH DUODENAL SWITCH**

The laparoscopic sleeve gastrectomy with duodenal switch combines two bariatric surgeries. First, 75-85% of the stomach is removed reducing the size of the stomach and the amount of the appetite hormone, ghrelin, that is produced. The new pouch, referred to as the “sleeve”, can hold between 3 to 5 ounces of food. This restricts the amount of food that can be eaten at any one time and reduces hunger. Next, the small bowel is rearranged, bypassing a significant portion of the small bowel, which results in malabsorption. This is referred to as the “duodenal switch” portion of the surgery.

The laparoscopic sleeve gastrectomy with duodenal switch results in a dramatic weight loss of 80-85% of excess body weight. This surgery is especially good for people who have a great deal of weight to lose or have significant comorbid conditions requiring quicker resolution. After laparoscopic sleeve gastrectomy with duodenal switch, you can expect to stay at the UVM Medical Center for a minimum of three nights.
GASTRIC SLEEVE GASTRECTOMY
Gastric sleeve surgery is also referred to as a vertical sleeve gastrectomy (VGS). During surgery, 84% of the stomach is removed laparoscopically. The “new” stomach can hold between 3 to 5 ounces.

The reduction in stomach size during the gastric sleeve operation reduces food intake but does not lead to decreased absorption of food. This bariatric surgery procedure removes the portion of the stomach which produces a hormone that stimulates hunger (ghrelin). The gastric sleeve is not reversible but can be converted to a Roux-N-Y-gastric bypass at a later time, if needed.

You can expect to lose 50-60% of excess body weight within three years. After Gastric Sleeve surgery, you can expect to stay at the UVM Medical Center for a minimum of two days.

Revision Surgeries at the University of Vermont Medical Center
- Revisions of Gastric Bands to Sleeve, Bypass, or Duodenal Switch may be needed if weight loss was inadequate or due to intolerance or complications from the Band. This is done in one or two stages and restores/induces weight loss.
- Re-stapling of Gastric Sleeve may be necessary if the sleeve has stretched. This further reduces the size of the stomach and thereby restores weight loss.
- Second Stage Duodenal Switch may occur after a primary Gastric Sleeve surgery that did not produce adequate weight loss. In this revision, the small bowel portion of the surgery is completed.
- Revisions or reversals of Gastric Bypass or Vertical Banded Gastroplasty (VBG) may be needed due to inadequate weight loss, weight regain, or complications such as; severe GERD, marginal ulcers, staple line disruption, recurrent bleeding, perforation or obstruction, or gastro gastric fistula.

We reserve the right to discharge patients from the Bariatric Surgery Program if they:
Cancel 3 appointments or No Show (do not call to cancel) to 2 appointments
Bariatric Surgery Program Requirements

POSSIBLE COMPLICATIONS OF BARIATRIC/WEIGHT LOSS SURGERY
- Wound Infection
- Pneumonia
- Pulmonary Embolism
- Blood Clot
- Nutritional Deficiencies
- Chronic Diarrhea

An onsite preoperative visit will take place three weeks prior to surgery. At this visit you will meet with the surgeon, physician assistant, and dietitian. This visit usually includes an EKG, and may take up to 2 hours. You will also be scheduled for a phone call from Anesthesia to review anesthesia and pain management.

Bariatric/Weight Loss Surgery Program Criteria

- BMI ≥ 40
- BMI ≥ 35 with comorbidities such as diabetes, high blood pressure or sleep apnea.
- Over the age of 18
- A diagnosis of morbid obesity
- Participation in a physician-supervised weight loss program for extended periods of time. Can vary from three to six months. They must be CONSECUTIVE.
- Psychological evaluation prior to surgery.
- Documentation of failed diet and exercise plans.
- Smokers are required to quit prior to having their first appointment with the surgeon. THERE ARE NO EXCEPTIONS.
- A 5% body weight loss is required prior to surgery. May be more depending upon physician recommendation.
- Each patient is required to attend at least one support group meeting.
What to Expect After Surgery
Admission is on the day of surgery. You will be out of bed starting the day of surgery.

THE POST-OPERATIVE DIET IS AS FOLLOWS:

<table>
<thead>
<tr>
<th>Gastric Bypass, Gastric Sleeve and Sleeve with Duodenal Switch</th>
<th>Laparoscopic Gastric Band</th>
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<tbody>
<tr>
<td>Post-op day 1</td>
<td>Sips of liquid</td>
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<tr>
<td>Post-op day 2</td>
<td>Liquids as tolerated</td>
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<tr>
<td>Post-op day 3 &amp; 4</td>
<td>Clear Liquids</td>
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<td>Days 5-14</td>
<td>Full Liquids</td>
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<td>Days 15-28</td>
<td>Blenderized Diet</td>
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It is common to have some difficulty adjusting to the way you eat after these operations. These difficulties can all be treated, but require that we know about them and design the appropriate treatment.

FOLLOW-UP SCHEDULE
Follow up is ESSENTIAL after surgery. Surgery will not be considered if you are not committed to the recommended follow-up.

<table>
<thead>
<tr>
<th>Gastric Bypass, Gastric Sleeve and Sleeve with Duodenal Switch</th>
<th>Specific to Laparoscopic Band</th>
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<tbody>
<tr>
<td><strong>First year</strong></td>
<td><strong>First year</strong></td>
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<tr>
<td>1-2 weeks</td>
<td>Post op Exam</td>
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<tr>
<td>6 weeks</td>
<td>Start vitamins</td>
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<tr>
<td>3, 6, 9, 12 months</td>
<td>Check labs</td>
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<td><strong>Second year and beyond</strong></td>
<td><strong>Second year and beyond</strong></td>
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<tr>
<td>Every 6 months to 1 year on individual basis.</td>
<td>Check labs</td>
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Follow-up for all weight loss surgeries include:
- Post-operative exam
- Assessment of your weight loss
- Nutritional counseling
- Food tolerance
- Examination for any complications related to the surgery
- Lab work to assess nutrient (vitamin, mineral, protein) status.
Your Weight Loss Team
At the UVM Medical Center we offer a team approach to your weight loss. In addition to working with a bariatric surgeon you will meet with the following staff members:

THE PHYSICIAN ASSISTANT/NURSE PRACTITIONER ROLE
• Medical Screening Prior to Surgery
• Referral to endocrine, pulmonary, cardiac, kidney, and other evaluations as appropriate.
• Pre-op History and Physical
• Provide ongoing monitoring, diagnosis, and management of possible long term post-operative complications including nutritional deficiencies.
• Gastric Band adjustments and trouble-shooting

THE REGISTERED NURSE’S ROLE
• The Registered Nurse provides ongoing health education, patient advocacy, and patient support.
• The Registered Nurse will be your first contact after surgery for evaluation of problems, general questions, and medication management while collaborating closely with the surgeon, physician assistant, dietitian, and psychologist. This “triage” role provides you with a quick response time to your health care issues.
• The Registered Nurse also assists in facilitating monthly support groups for patients.

THE DIETITIAN’S ROLE
• Initial visit for nutrition assessment and to begin weight loss process for the mandatory pre-operative weight loss. You will meet with a dietitian at every visit both before and after surgery.
• Education regarding the strict pre and post-op dietary changes
• Evaluation of your understanding of the post-op diet in a classroom format
• Counsel patients in hospital prior to discharge
• Work with patients to assist with the after surgery transition from clear liquids to full liquids, pureed foods, soft solids and finally a normal meal plan.
• Continued education focused on healthy eating habits as foods are introduced throughout the remainder of a patient’s life
THE PSYCHOLOGIST’S ROLE

- You will meet at least once with the clinical psychologist for a behavioral health evaluation to determine if surgery is a good fit for you from a psychosocial perspective. This evaluation will screen for issues including, psychological and social problems, expectations about the outcome of surgery, and the ability to conform to the strict post-operative treatment and lifestyle requirements.

- You will be required to participate in one behavioral skills class facilitated by the clinical psychologist during which you will receive information about strategies to increase the likelihood of weight loss maintenance.

- You may be required to start ongoing counseling in preparation for the emotional and behavioral adjustments that you may face with rapid loss of large amounts of weight.
Glossary of Terms

- **Anastomotic leak** is the breakdown of the connection between the stomach and the intestine. If not immediately recognized, this may lead to abscess, severe abdominal infection, or death.

- **Band Erosion** is the partial or complete movement of the band into the tissue of the stomach. If this occurs, the band must be removed.

- **Band Slippage** can cause the stomach to pouch over or under the band, creating a blockage and preventing food from moving into the intestines.

- **Death** is rare but a possible complication usually due to cardiac or pulmonary complications.

- **Gallstones** can form while rapidly losing weight. Surgical removal of the gallbladder may be required.

- **Hair loss** is common in the first 6-12 months and is usually temporary.

- **Hernias** can occur after any operation. They are characterized by bulging and pain in the area under and around the incision.

- **Perforation** is a hole in the stomach or esophagus that can occur during the placement of the band during laparoscopic surgery. This can be life threatening.

- **Pneumonia** is an infection in the lungs that can be avoided by doing breathing exercises and walking starting the day of surgery.

- **Pulmonary embolism** can occur if a blood clot forms in the veins of the legs and travels to the lung. This also can be life threatening. It is prevented by inflating cuffs placed on the calves during surgery and by walking as soon as possible and as much as possible after surgery.

- **Reactive Hypoglycemia** is a dramatic lowering of blood sugar within 2 hours of eating that can cause symptoms of sweats, shaking, lightheadedness, heart palpitations, anxiety, mental fog, and sometimes seizures and fainting.

- **Secondary Hyperparathyroid** is a disease associated with the poor absorption of calcium following weight loss surgery. There is a related vitamin D malabsorption syndrome which may lead to osteoporosis if left untreated.

- **Staple line disruption** is an opening of the staples that create the stomach pouch. It results in weight gain and marginal ulcer, which is an ulcer near the pouch-intestine connection.

- **Stomal stenosis** is a narrowing of the connection between the stomach and intestine. It is usually detected 4-8 weeks after surgery. It is treated by examining the stomach with a scope and stretching it with a balloon.

- **Vitamin/Mineral deficiencies** caused by poor absorption. Vitamin B12 deficiency can cause anemia or neurologic problems. Iron and folate deficiency can cause anemia. Calcium deficiency can cause osteoporosis. Everyone is started on vitamins six weeks after surgery. Supplements are adjusted based on lab results.

- **Wound disruption** is the breakdown of the closure of the abdomen and must be immediately repaired operatively.
FOR MORE INFORMATION
To find health information, or for convenient and secure access to your medical record through MyHealth Online, please visit UVMhealth.org/MedCenter or call us at (802) 847-0000.

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