

Bariatric Weight Loss Program **PATIENT GUIDE**

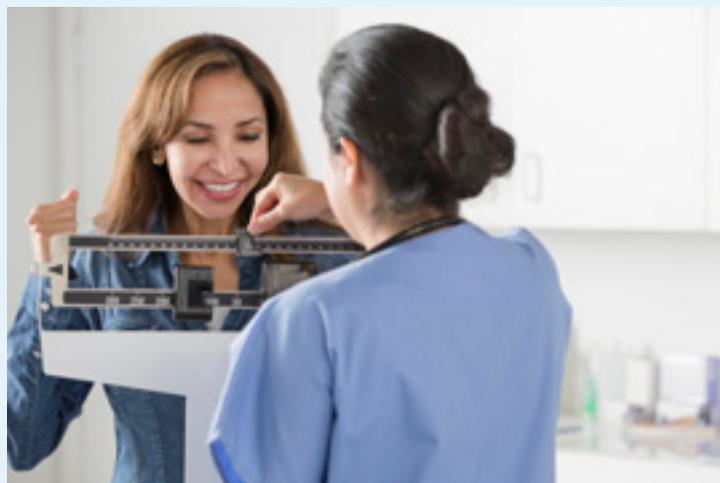


STEPS TO BARIATRIC SURGERY

- 1. Complete Seminar - Virtual / In-Person
- 2. Verify Insurance and Qualifications
 - a. Consult your insurance to verify Bariatric coverage
 - b. Obtain a Letter of Support from PCP
 - c. Obtain relevant Medical Records
 - i. 1 Note per year documenting height, weight and co-morbid conditions for 2 years
 - ii. Sleep Study or Cardiac Work-Up for review
 - d. Do you qualify for Bariatric benefits
- 3. Initial New Patient Intake Visit with CFV Bariatric providers
 - a. Provider driven visit
 - b. Medical referrals to be completed
- 4. Pre Surgery Appointments
 - a. Psych Consult
 - b. Nutritionist
 - c. Cardiology Consult
 - d. Other / As Needed / Support Group Attendance
- 5. Scheduling Surgery
 - a. Pre-Surgical Provider visit
 - b. Surgery Date
 - c. Post Op Follow-Up Schedule
 - i. 1 Week
 - ii. 4 Weeks
 - iii. 3 Months
 - iv. 6 Months
 - v. Annually (within program)
- 6. Support Group Attendance

Welcome to Cape Fear Valley Health's Bariatric Weight Loss Program! We are excited to be on this journey with you and look forward to providing you with exceptional care along the way.

By taking this initial step forward into bariatric surgery, you are taking control of your health for years to come. Bariatric surgery is a major life change, but our multi-disciplinary team of surgeons, nurses, dietitians and psychologists provide a comprehensive program to help ensure your continued success.



In this handbook, you will find an abundance of information. We believe that proper education is the key to your surgical success. Here you will find information for the time leading up to surgery and beyond. Implementing these lifestyle changes to the fullest will ensure you accomplish your health and weight loss goals. We like to think of this book as your instruction manual for success. Because of this, we ask you to bring it with you to each appointment so you can note questions you may have along the way.

If you have any questions, you can contact a member of the team by calling **(910) 615-BARI (2274)**.

We look forward to working with you in the coming months to help you achieve your weight loss goals.

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Obesity and the Problems It Causes

Obesity is the most common medical disorder in the United States, affecting more than two-thirds of U.S. adults. In the past 20 years, the obesity rate in America has doubled and is now the leading cause of preventable death.

Obesity is diagnosed when your body mass index (BMI) is 30 or higher. It means you are 40 to 100 pounds or more above the ideal body weight.



Obesity causes or contributes to the development of a number of life-threatening conditions including heart disease, hypertension and diabetes. Respiratory disorders, such as obstructive sleep apnea, hypoventilation syndrome, asthma, respiratory infections and gastroesophageal reflux disease (GERD) are also more prevalent in obese patients. Obesity raises your cancer risk, particularly that of endometrial, cervical, ovarian, breast and gallbladder cancer in women. The increased risk in men is with prostate and colon cancer. Also, obese patients are at a higher risk for stroke, pre-eclampsia, gestational diabetes and viral or bacterial infection.

Not only do obese patients have more health challenges, but there are also daily battles. Carrying excess weight is painful to your joints and bones. Emotionally, obesity can take a toll on your mental status too. Often, obese patients have tried diets and weight loss plans, usually multiple times, but nothing has been successful.

What is Bariatric Surgery?

Bariatric surgery, or weight loss surgery, is for patients who have exhausted all other weight loss options and those with health problems that are a direct result of carrying excess weight.

Bariatric surgery involves changes to the stomach or to the stomach and small bowel. By reducing your stomach size and the associated hormones linked to food intake and hunger, you are now more apt to lose a significant amount of weight. These procedures can be expected to result in a 40 to 70% loss of excess body weight that is sustained for years.

There are several operations or procedures available for morbidly obese patients. The ones most commonly used in our program include the Roux-en-Y gastric bypass procedure and the gastric sleeve. Each has its own benefits and risks and is further explained in this booklet. Our provider will help you determine which procedure fits your needs and goals.

Bariatric surgery is not a quick or easy fix. It involves a major surgery that comes with significant diet and lifestyle changes. Because this surgery is so involved, it is only offered to patients who meet the criteria of being morbidly obese. Generally speaking, bariatric surgery could be an option for you if your BMI is 40 or higher or your BMI is 35 to 39.9 and you have a serious weight-related health problem, such as type 2 diabetes, high blood pressure or severe sleep apnea. Some patients with a lower BMI also may qualify for surgery if there is a health-related need. It is best to talk to your physician to see if you qualify for bariatric surgery.



Our physicians perform most of our bariatric procedures laparoscopically. A small tubular instrument called a laparoscope, with a camera attached, is inserted through small incisions in the abdomen. Your surgeon can see through the camera and operate inside your abdomen without the need for large incisions. Laparoscopic surgery leads to a faster and easier recovery, but it is not suitable for everyone. Your surgeon will discuss surgery options with you.

Your success after surgery is not gauged only on weight loss, but also on the improvement of your medical issues. In post-surgery follow-up appointments, we will help you track all of your improvements so you can get a better picture of how your quality of life is changing too.



Am I a Candidate for Bariatric Surgery?

Eligible candidates for bariatric surgery must meet the following criteria

- 1.** You must be at least 18 years old.
- 2.** You must have a BMI of 40 or greater, or you must be 100 pounds or more overweight. Visit www.capefearvalley.com/bariatric to calculate your BMI.
- 3.** If your BMI is between 35 and 40, then you must have at least one significant co-morbidity (serious medical problem), such as type 2 diabetes, high blood pressure, elevated blood fats, heart problems, severe sleep apnea or chronic back or knee pain.
- 4.** You should not have any severe psycho-emotional or medical problems that would make surgery unnecessarily risky.
- 5. No drug or alcohol dependency.** If you have a history of such, you must be well into a qualified treatment program with at least 1 year of sobriety.
- 6. No smoking.**
- 7.** You must have a personal ongoing commitment to follow the nutrition, exercise, medication and laboratory protocols provided.
- 8.** You must have a personal ongoing commitment to attend support group meetings on a regular basis.
- 9.** You must have a personal ongoing commitment to return to the office for follow-up appointments.

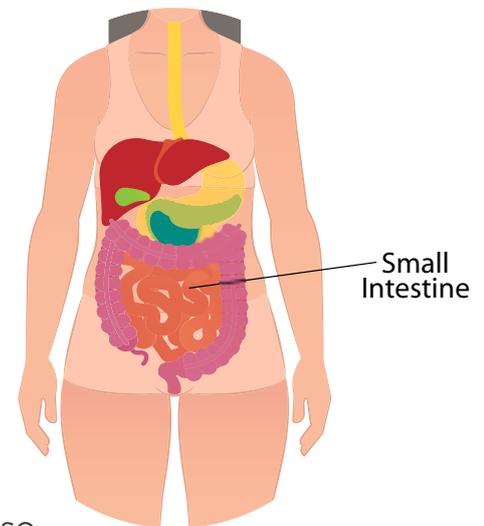


Normal Gastrointestinal (GI) Tract

Before describing various surgical procedures, it is important to review the normal functions of the GI tract.

Food enters the mouth, mixes with digestive enzymes of the saliva and is chewed, starting the process of digestion or food breakdown. The food then passes through the esophagus into the stomach.

The stomach has a normal capacity of nearly 1000 cc or approximately 1 quart. It has a maximum capacity of approximately 1500 to 1700 cc or close to 2 quarts. Food is further digested in the stomach by mixing with digestive enzymes and acid. The stomach also produces intrinsic factor, which is a carrier necessary to bind with vitamin B-12 for its absorption.



The contents of the stomach empty into the first part of the small intestine, which is called the duodenum. The duodenum is only about 1 foot long. The food undergoes further digestion through the use of bile and enzymes from the pancreas. This area of the gut is important for the absorption of sugar, a small amount of fat and some protein. It is also the major part of the gut that absorbs iron, calcium and folic acid.

Bariatric Procedures

Roux-en-Y Gastric Bypass

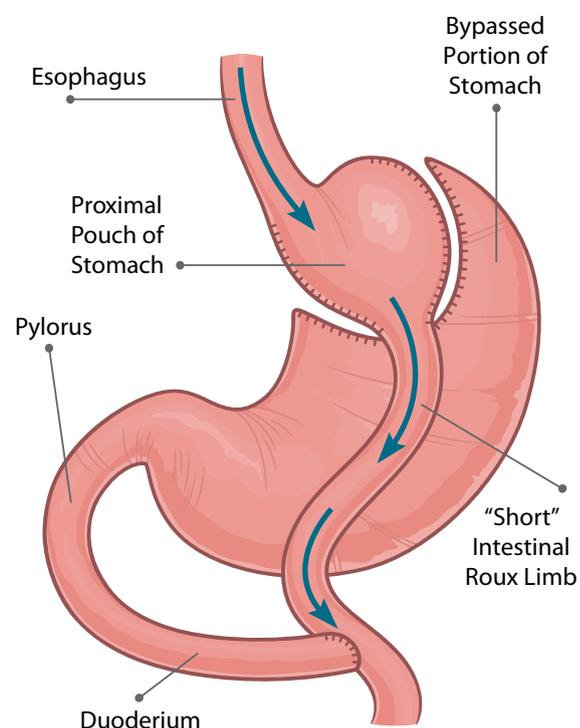
The Roux-en-Y gastric bypass is considered the “gold standard” of bariatric surgery. With Roux-en-Y, weight loss is induced by the formation of a small gastric pouch that restricts food intake and by mild malabsorption from bypassing a portion of the small intestines. This procedure produces a greater than 65% excess weight loss, which may be sustained long-term.

This operation is performed using the open or laparoscopic approach, each with advantages and disadvantages.

The stomach is divided to create a small stomach “pouch” that limits the amount of food that can be eaten. The pouch is about the size of one’s thumb and can hold about 2 ounces of food. The larger, excluded stomach, known as the gastric remnant, is stapled closed and is surgically separated from the much smaller stomach pouch.

The bypassed portion of the stomach no longer receives food but has a normal blood supply, allowing for the delivery of oxygen and nutrients to the stomach tissue, thereby keeping the gastric remnant healthy.

The gut is cut part way down the second segment of the small intestine or the jejunum, and the lower (distal) part of the jejunum is connected to the newly formed stomach pouch. Hence, food also bypasses the first section of the small intestine (duodenum) and the upper portion of the second segment of the intestine (jejunum). Rather, food now passes from the mouth to the esophagus, to the stomach pouch, then into the second part of the jejunum and into the ileum, the large intestines and the colon, with waste leaving the gut through the rectum.



The bypassed part of the intestines, the duodenum and the upper portion of the jejunum remain connected to the gastric remnant. (The remnant stomach still has a valuable function as it continues to make enzymes that are important for digestion.) The duodenum continues to receive bile from the liver and digestive juices and enzymes from the pancreas. The open end of the bypassed jejunum is then reattached to the small intestine at a specific point above the ileum, allowing bile and pancreatic juices to mix with food to promote digestion and absorption of nutrients.

With the duodenum and part of the jejunum bypassed, there is reduction in the absorption of major nutrients; sugar, protein, and fat. This, along with a decrease in calorie intake, results in weight loss.

The malabsorptive component of the surgery also contributes to weight loss by causing a condition known as “dumping syndrome”. Most sugar that is consumed is absorbed in the duodenum, the part of the intestine that has been bypassed. After bypass, sugar passes from the stomach pouch directly into the jejunum. The unabsorbed sugar pulls fluid into the gut, resulting in gut distention, increased gut motility (activity), cramping and neurological responses that may cause an increase in heart rate, fatigue, sweating, abdominal cramping, diarrhea, nausea, and even vomiting. Most patients will experience sugar sensitivity at varying degrees.

The new anatomy also causes some hormonal changes that help with weight loss and resolution of medical problems such as diabetes.



Gastric Sleeve

Gastric sleeve surgery is also known as vertical sleeve gastrectomy. This procedure is another option for those looking to help with their morbid obesity through weight loss surgery. The gastric sleeve is a restrictive procedure. It achieves weight loss results by restricting the amount of food that your body is physically able to take in. Like gastric banding, there is no malabsorption involved with this procedure. A sleeve gastrectomy also works because it removes the part of the stomach that produces ghrelin. This is a hormone that stimulates appetite. It will reduce, but not completely eliminate, your appetite.

How Gastric Sleeve Surgery Is Performed

Gastric sleeve surgery involves permanently removing a large portion of the stomach, anywhere from 60% to 85% of the total stomach. The portion left behind is a slim tube or “sleeve” that will serve as your new stomach. This portion of the stomach is already connected naturally to the stomach inlet and outlet, which means that no rerouting of the intestines is needed. The difference between gastric sleeve procedures and other weight loss surgeries (Roux-en-Y) is that the nerves to the stomach and the outlet valve (pylorus) of the stomach remain intact, preserving the functions of the stomach. There is no bypass of the intestines with the gastric sleeve, only stomach capacity reduction.

Potential Risks and Complications of Gastric Surgery

Bariatric surgeries are very safe operations; however, as with any major procedure, there are certain short-term and long-term health risks.

Immediate risks for bariatric surgery patients can include:

- Excessive bleeding
- Infection
- Adverse reactions to anesthesia
- Blood clots
- Lung or breathing problems
- Leaks in your GI system
- Death (rare)

Depending on the type of surgery, longer term risks and complications of weight loss surgery can include:

- Bowel obstruction
- Dumping syndrome, which leads to diarrhea, flushing, lightheadedness, nausea or vomiting
- Gallstones
- Hernias
- Low blood sugar (hypoglycemia)
- Malnutrition
- Ulcers
- Vomiting
- Acid reflux
- The need for a second, or revision, surgery or procedure
- Death (rare)

Patient Information Seminar

We offer an online bariatric seminar for all patients to get a short introduction to the surgery and our surgeons. All patients must watch the video and acknowledge that they have done so before coming to the first appointment. It is 45 minutes long and will help answer a lot of commonly asked questions. Topics covered include:

- How do we define obesity?
- How does obesity affect your health?
- Genetics and obesity
- Comprehensive approach of the bariatric program
 - Helping patients succeed
 - Diet changes surrounding the surgery
 - Types of bariatric surgeries offered



We encourage you to write down other questions as they arise and bring them up to your surgeon at your appointment. There is a notes section in the back of this booklet, which we encourage you to bring it to all visits.

Insurance and Financial Information

You are responsible for your financial obligations for the bariatric surgery. You will need to check with your insurance provider to see what coverage is offered. On the first page of this booklet, there is a section where you can record that phone call. It is imperative that you make a note of who you spoke with, when and what was said.

Bariatric surgery is covered by most insurance plans when it is established that a patient is “morbidly obese”, that the surgery is “medically necessary” and that the patient has tried to lose weight in other ways but failed. Most insurance companies define morbidly obese as a BMI over 40 or over 35 with an established obesity-related medical condition. If your insurance will not cover the surgery, we have the self-pay option. Please contact us at 910-615-BARI for more information.

It is your responsibility to determine if nutritional and psychiatric consults are covered by your insurance plan.

Preoperative Visits

When you call our office for your initial appointment, you will be scheduled for a consult with one of our bariatric providers. During the visit, your BMI and ideal weight will be calculated. In addition to a complete medical history, the provider will determine if you are a good candidate for surgery and discuss the surgical options available to you and the benefits and risks associated with each surgery. Your past diet and exercise history will be discussed, and any medications and supplements you take will need to be mentioned. You may want to bring your medications and supplements to the appointment to make sure all information is correct.

After getting your history, the physician will let you know if you are good candidate for surgery and what type of surgery is recommended. You can discuss any potential surgical risks and complications at that time. The provider will also give you changes to make to your diet and lifestyle leading up to the surgery. Weight loss before bariatric surgery is associated with fewer postoperative complications. Any amount of weight you can lose before surgery will help you in the long run.

Most patients make the decision to go forward with surgery at the initial consult. If you choose to as well, we will begin scheduling follow-up appointments and pre-testing, as well as a psychology screening. If you are under the care of other medical specialists, please



note this at the appointment so we can seek surgical clearance from those physicians as well.

Each insurance company has different criteria that need to be met before surgery. Some companies require participation in a medically supervised weight loss program. Let us know the parameters your insurance company sets out, and we will help you meet the criteria if bariatric surgery is your goal.

Smoking and Surgery

Cigarette smoking increases the risk of wound and respiratory complications, sepsis and other adverse events after bariatric surgery. Smoking can also cause ulcers, bleeding and leaks from connections made during the surgery. Smoking lowers lung capacity and increases your chances for a blood clot, and nicotine also prevents good wound healing. **Most insurance companies' require bariatric weight loss surgery patients to be tobacco- and nicotine-free for at least 6 months before surgery. .**

Your smoking history will be discussed at pre-op appointments. Quitting before surgery will lead to better outcomes for you. If you need help with smoking cessation, let us know. We have resources available for you.

Vitamins and Herbs Before Surgery

Not all vitamins are good to take before surgery. Some can be very harmful to your system, so you must discontinue the use of any of the following at least 2 weeks before surgery:

- Vitamin E
- Ginkgo biloba
- Black cohosh
- St. John's Wort
- Grapeseed extract
- Any other vitamin/mineral or herbal supplement that affects blood flow causes blood thinning



Consult your surgeon before resuming the use of any of the above post-surgery.

Nutritional Consult

You will be referred to a Cape Fear Valley dietitian before surgery for a nutritional consult. There you will go over the lifestyle changes you will need to make before and after surgery. The dietitian will get a health history and find out any vitamins you are taking and what you are currently eating. The dietitian will help estimate your nutritional needs after surgery and ensure you understand the diet changes that come with bariatric surgery.

Psychology Consult

Part of the bariatric surgery process involves a psychology consult to make sure there are no underlying behavioral problems, such as binge eating and emotional problems such as depression and anxiety. You will be referred to Cape Fear Valley Behavioral Health to be evaluated by a mental health professional shortly after beginning the surgical process. The visit is an insurance requirement and should be reimbursable.

Cardiology Consult

You will need an evaluation of your heart by a cardiologist to make sure it is healthy enough to undergo the stress of surgery. You will be referred to a cardiologist in the community if you do not already have one.

Support Groups

It is extremely important that you realize and fully understand that this surgery is not a quick fix. You will need a strong support system to help see you through your journey. For success, you must change your behavior and relationship to food. Changing your relationship to food is a learning process, and it takes time and effort on your part to accomplish this.

We strongly encourage you to attend the monthly support group meetings we offer. Support groups offer a comfortable forum to learn and ask questions among your peers who have been through the same thing. In this group, you will find patients awaiting surgery, new surgical patients and those who are months or years out from their surgery. Patients can learn a great deal when hearing about other individuals' experiences.

At these meetings, you will be able to hear other people sharing your same thoughts and feelings. It will help you realize that you are not alone. We are a unique group of individuals who come together through a common bond of obesity. Our successful patients have made this commitment. They will be the first to tell you how important coming each month to the meetings is and how hearing from others has helped them through all the changes they have experienced with surgery.

Times and locations for the Bariatric Support Group can be found online at www.capefearvalley.com/bariatric.

Final Pre-surgery Visit

Your last visit with the surgeon before your surgery will be filled with results from your preoperative lab work and other consults you had. The surgeon will go over the surgical procedure and answer any questions you may have. After you fully understand everything that has been reviewed, you may be asked to sign a surgical consent form. You will then be scheduled for surgery and given any preoperative instructions. Your surgeon will go over any medications you are on and discuss the plan for those pre- and post-surgery.

Before surgery, you will need to go to Highsmith-Rainey Specialty Hospital for final preoperative testing. Bloodwork will be performed. You will also be given more information on your surgery including when to arrive and where to go once inside as well as eating and drinking instructions. Your surgery will be performed at Cape Fear Valley Medical Center.

If you have a cold, cough, fever or any other changes in your health before surgery, please call our office. We may need to reschedule your surgery.



Day of Surgery

Most patients will stay 1 to 2 days in the hospital. When you come, please only bring the necessities with you and no jewelry or valuables. The following is a list of suggested items to bring to the hospital to make your stay more comfortable:

- This booklet
- Your nutritional manual
- Your CPAP (if required)
- A small overnight bag with toiletries

Prevention Education

Allergies

If you have a known allergy to latex, please inform the office immediately so that steps can be taken to change the necessary equipment and supplies in the operating room.

Preventing Blood Clots

On the day of your hospital admission, you will be educated on how to help reduce the risk for blood clots and, particularly, the occurrence of a pulmonary embolus, which is a blood clot that breaks loose and lodges in the lungs that has potential life-threatening consequences.

Compression boots (SCDs) will keep blood circulating in the lower extremities to help prevent blood clots from forming. Redness, heat, swelling and/or pain in the calves are often early signs of blood clot formation.

Early mobility (walking) and exercises that increase circulation are also useful in preventing blood clot formation. On the day of your hospital arrival, you will be instructed on how to get out of bed with the least amount of discomfort and how to perform certain exercises in bed that will help to increase circulation and prevent blood clot formation.

In addition to the above mentioned, you will usually be injected with an anti-coagulant every day until you are discharged from the hospital.

Preventing Respiratory Complications

On the day of your surgery, after you arrive to the bariatric floor, you will be instructed on how to use an incentive spirometer and the importance of frequent coughing and deep breathing. These things combined help to prevent respiratory complications including atelectasis (a collapse or partial collapse of the lungs), pneumonia and oxygen insufficiency.

Prevention Exercises: Deep Breathing and Coughing

It is very important to ensure proper lung expansion to help prevent postoperative respiratory complications.

- Place your hands on the side of your rib cage and try to push your hands away when you inhale deeply.
- When you exhale, try and force yourself to cough and clear any mucus that may have accumulated in your lungs.
- Splint your abdomen with a pillow by holding it across the midsection where your incisions are located. Use a small amount of pressure to counteract the force of your cough.

Prevention Exercises: Preventing Blood Clots

Both of these exercises will help to prevent blood clots and the risk of a pulmonary embolus by promoting the return of blood to the heart.

- Push your toes down toward the floor for 5 seconds, relax, then pull them up toward your head for 5 seconds, relax. Repeat 10 times for each leg every hour.
- Rotate each ankle to the right and to the left and wiggle your toes.

Prevention Exercises: Ambulation

It is important to get up and get going after surgery to prevent postoperative complications and to facilitate recovery.

- Have the nurse lower the bed to the floor and raise the head of the bed. This will give you a shorter distance to raise your upper body.
- Push up with the hand closer to the bed, and support yourself with the other hand.
- If you have a long incision, it is wise to turn on your side before getting up. This reduces the strain on your incision.

Surgery and Recovery

Immediate Preoperative and Intraoperative (During Surgery)

- 1.** Before surgery, your anesthesiologist will discuss any medical conditions you may have, discuss any medications you are taking, explain the anesthetic procedure and answer your questions. The anesthesiologist will usually put you to sleep by injecting an analgesic medication through your IV.
- 2.** After you are asleep, a breathing tube will be inserted. You will not be aware of this. Once you regain consciousness, the breathing tube will be removed, most likely before you know it was ever there. Occasionally, however, it may be necessary to keep the breathing tube in place for a short period of time postoperatively until your own breathing improves.

3. You may also have a Foley catheter inserted into your bladder after you have gone to sleep and before surgery begins. The catheter is used to monitor urine output and to keep the abdomen from distending. This may be removed in the PACU or once you are fully awake and walking.
4. The anesthesiologist will continuously monitor your blood pressure, pulse, respiration rate, carbon dioxide levels, heart rhythm, fluid intake, urinary output and oxygen levels for your safety and comfort. The surgery may take from 1.5 hours to up to 3 hours.
5. After the surgery, you will go to the recovery room for an hour or two and then on to an appropriate care unit. The anesthesiologist is in charge of ordering any medications for pain or nausea that you may require while you are in the recovery room. The recovery room nurse will monitor you during this time.

Postoperative: Day of Surgery

Again, it is important to get up and get going after surgery. We generally encourage all patients to walk in the hall at least two times a day, starting 4 to 5 hours after you arrive in your room. (Always ask for assistance.)

Our center participates in the quality improvement project BSTOP (Bariatric Surgery Targeting Opioid Prescriptions).

The goal is to improve pain control while reducing both prescriptions and patient use of opioids in the short and long term after bariatric surgery.

1. Pain medication will be ordered for you. It is important to tell your nurse when you are beginning to have an increase in your pain level.
2. Remember to practice deep breathing and coughing to clear the lungs of any mucus. In addition, the incentive spirometer should be used hourly while awake, repeating the exercise 10 times per use.
3. You may have an abdominal dressing over your wound, and you may have a Jackson Pratt (JP) drain (rare). The JP drain has a bulb attached to it that collects drainage from the surgical site.



4. Your vital signs will be monitored at regular intervals (blood pressure, pulse, temperature, oxygen levels and respirations).
5. You will have SCDs (automatic compression device) around both of your legs to prevent blood clots.
6. You may have an antibiotic administered during the first 24 hours postop to prevent infection.
7. Depending on your surgeon, you may be NPO (nothing by mouth) except for ice chips until you complete the Gastrografin UGI to determine if you have any leaks. This will happen on postop Day 1, if ordered.

Postoperative Day 1

(THE DAY AFTER SURGERY)

1. On this day, you will feel tired and uncomfortable. It is important to get up and walk. The nurses will help you. Use your call bell to ask for assistance.
2. Practice your breathing and coughing exercises. Remember to splint your abdomen with a pillow.
3. Perform your blood clot prevention exercises.
4. Ambulate frequently. Walk as much as possible. Each time will get easier.
5. Continue to use your incentive spirometer hourly. Remember to inhale, raise the disc, hold for 3 seconds, then exhale. Do this 10 times every hour.
6. If ordered, you will have an *upper GI to evaluate the continuity of the gastrointestinal tract (check for leaks).
7. You will be given small amounts of sugar-free, carbonation-free liquids. Remember ... **NO STRAWS**. Take small sips.
**For patients who receive an upper GI, this applies to you when your upper GI comes back negative (free from leaks).*

- 8.** You may resume taking most of your regular medications. They will be ordered by your physician.
- 9.** You may be discharged on this day, depending on your surgeon and your condition. If so, check your discharge instruction sheet for appropriate follow-up instructions. You will be instructed to follow up with your doctor in 1 to 2 weeks. Check your discharge instruction sheet for appropriate follow-up information. If an appointment was not made before surgery, one will be made before your discharge.

Postoperative Day Two

It is important to continue to deep breathe, cough, use your incentive spirometer and walk as much as possible.

- 1.** Remember to drink small amounts of clear liquids without a straw.
- 2.** Your abdominal dressing and your JP drain will be removed if applicable.
- 3.** You will be able to shower. Assistance is available if you need it. Ask your nurse.
- 4.** Overall, you should be feeling fairly well. So well, that most patients go home on this day.
- 5.** You will be instructed to follow up with your doctor in 1 to 2 weeks. Check your discharge instruction sheet for appropriate follow-up information. If an appointment was not made before surgery, one will be made before your discharge.



Discharge Home

It is important to maintain an active life. You will do better and reduce your risk of complications if you work toward getting back to your normal lifestyle as quickly as possible. Most patients will be able to return to work in some capacity by Week 2, but others may not return for 4 to 6 weeks. Listen to your body and know when you need to rest and let your body heal.

Be sure to walk 45 minutes per day. If you do not have the endurance to walk for 45 minutes, then you may start walking for 15 minutes, three times daily, increasing your time until you can walk the whole 45 minutes without resting. Also, it is important to start performing your isometric and flexibility exercises described in the exercise section on page 34.

Remain on a liquid diet for 2 weeks to let your stomach and insides heal properly. Drink 64 oz. of water per day. In the first 2 weeks, all fluids consumed count toward the 64-oz. goal. On postop Day 3, you may start clear protein supplements. Men need 80 to 100 grams of protein, while women need 60 to 80 grams per day.

Do not drive for the first week after surgery or while you continue to take narcotic pain medication. You have had anesthesia, narcotic pain medicine and the large muscle of the

abdomen cut. Any of these factors can cause your reaction time to be slower than **normal**. Furthermore, sitting in one position for prolonged periods can increase your risk for blood clots.

You may shower. **Do not take tub baths** until your incision sites are healed. It is important to keep your wounds clean and dry. You may find it comfortable to use a blow dryer on a warm setting to dry your wounds rather than using a towel. Use a good antibacterial soap. A scar cream may be used after the first month. Always check with your doctor before using anything new.

Sexual activity may resume when the abdominal incision is comfortable. This varies from patient to patient. You may also resume small household chores. However, **no heavy lifting of more than 10 pounds** until cleared by your surgeon.

Medications

Resume your regular medications unless otherwise advised by your surgeon or physician.

If you are on diabetic and blood pressure medication, monitor your blood pressure and glucose closely, and, if low, call your medical doctor. Blood pressure improves rapidly after surgery. The same is true for blood sugar levels in diabetics. Gastric bypass surgery leads to improvement or normalization of blood sugar levels after surgery for almost all diabetic patients, significantly affecting the need for dosage adjustments of insulin, hypoglycemic agents or other diabetic medications.

Postoperatively, do not take aspirin or aspirin-containing agents, ibuprofen, arthritic medications or any other non-steroidal anti-inflammatory medication, except as instructed by your health care provider. These medications are extremely harsh to the stomach wall lining and may cause ulcers. Tylenol (acetaminophen) is acceptable to take. It is metabolized by the liver and should be taken at less than 4,000 mg per day to avoid liver damage. Erythromycin should only be taken with caution and with your physician's approval. This medication may cause stomach irritation. Other antibiotics should be taken with food as prescribed by your physician.

IF YOU HAVE ANY DOUBTS ABOUT A MEDICATION, PLEASE CALL YOUR SURGEON'S OFFICE.

Aside from pain relievers, other medications should be taken as prescribed by your physician.

Vitamins and Minerals

Having bypass surgery means you are drastically reducing the amount of food that will enter your system. To help combat the decrease in vitamins and minerals, you will need to take supplemental vitamins and minerals for the rest of your life. The American Society of Metabolic and Bariatric Surgery (ASMBS) recommends that all bariatric surgery patients take a bariatric formulated multivitamin regimen after surgery.

- Take a multivitamin with iron - 2 times per day for Roux-en-Y
 1 time per day for gastric sleeve
 - Calcium citrate with Vitamin D - 2 times per day
- *Separate MVI with iron and calcium by 2 hours***

When taken together, calcium and iron bind to one another and are not absorbed.

Alcohol

Do not use alcohol during the early and rapid weight loss period. The use of alcohol can interfere with the effectiveness of various medications, but can also have more serious health consequences. Your liver is highly susceptible to the toxic effects of alcohol during the early postoperative period. Furthermore, alcohol can cause your blood sugar levels to decline to dangerously low levels in the early postoperative periods. This could cause brain damage, loss of consciousness and even death.

Postoperative Concerns

Nausea

This is a common side effect of negative calorie intake and inadequate fluid intake. An antiemetic medication will be prescribed for this. Temporary relief may be obtained by drinking mint, green, strawberry, chamomile or other warm herbal teas. Ginger is also helpful. **The best cure for nausea is to increase your fluid intake.**

Vomiting

Common causes of vomiting are eating too fast, not chewing your food up properly, consuming too much food and/or liquids or eating meat that is too dry. Mixing food with liquids can also cause this because it fills the pouch up too quickly. If vomiting occurs, you need to make a note of the situation. What type of food did you eat, how fast did you eat it, how much did you eat, was it dry, was it chewed up properly? And lastly, what was going on with you? Were you stressed, rushed, distracted? All of these things can have an effect on your ability to swallow and digest your food.

Some patients will vomit a thick, frothy substance in the mornings. This is thickened saliva that has accumulated overnight. This can be diluted by gargling with water, followed by sips of warm water or tea.

If you vomit more than two times a day, call the office. If you cannot keep anything down for more than 8 hours, call the office.

Persistent vomiting needs to have the cause identified so that specific treatment can be provided.

Diarrhea

Call the office.

Fever

Call the office.



When to call the bariatric provider:

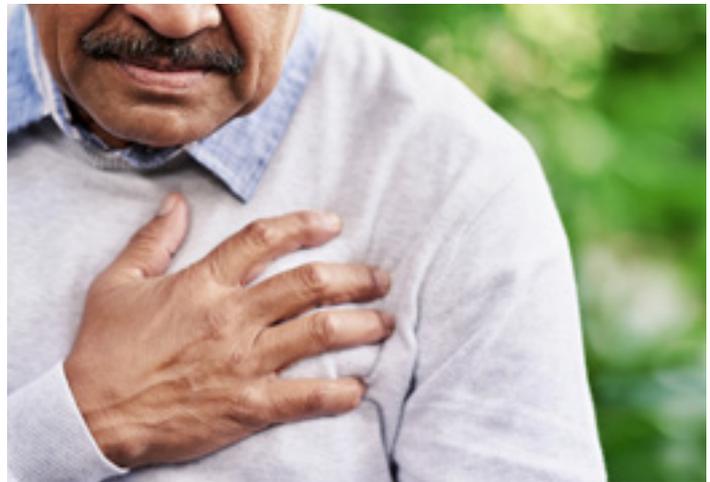
- Fever greater than 101 degrees F
- Chills, night sweats
- Redness and increased pain around the surgical sites
- Increased shortness of breath
- Excessive bleeding at the surgical sites
- Dizziness or lightheadedness
- Inability to keep fluids down (less than 48 oz in 3 days)
- Racing heartbeat
- Change in mental status, such as confusion
- Pain that is unrelieved by pain medication
- Chest pain that continues for more than 5 minutes

Gas Pain

Gas pain can be relieved by walking and by passing gas. Antacids such as Phazyme or Gas-X may provide some relief.

Heartburn

Over 95% of patients who have heartburn before the surgery will be completely relieved of their symptoms after surgery. Drinking or eating food too quickly, drinking ice cold beverages and consuming carbonated beverages may cause symptoms to reoccur. Drinking coffee, which is both a stomach irritant and a stimulant, can cause heartburn. Regular scheduling of meals can help as well as an antacid taken 1.5 hours after eating. Talk to your doctor if this is persistent. **The gastric sleeve is not recommended for patients with severe reflux.**



Gastritis and Esophagitis

Gastritis and esophagitis are conditions characterized by an inflammation of the mucous lining of the stomach and the esophagus. A prescription-strength antacid may be required if this occurs.

Dumping Syndrome

After gastric bypass surgery, most patients will experience dumping syndrome if they consume food or beverages that contain too much sugar. Most sugar that is consumed is absorbed in the duodenum, the part of the intestine that has been bypassed. After bypass, sugar passes from the stomach pouch directly into the jejunum. The unabsorbed sugar pulls fluid into the gut, resulting in gut distention; increased gut motility (activity); cramping and neurological responses that may cause an increase in heart rate, fatigue, sweating, abdominal cramping, diarrhea, nausea and even vomiting. Most patients will experience sugar sensitivity at varying degrees. We recommend not consuming > 10 grams per serving.

Dumping syndrome is considered a negative reinforcement that helps induce weight loss.

Patients don't usually want a repeat episode of dumping. Some patients have found that certain foods high in fat can cause the same type of symptoms. Eating their food too quickly can cause them to have these symptoms as well.

Hypoglycemia

Lightheadedness, fatigue, cold sweats, feelings of faintness or a rapid heartbeat are typical of hypoglycemia (low blood sugar). This is due to not eating at regular intervals, as recommended. Do not go for more than 4 hours during the day without eating. If hypoglycemia continues, decrease your meal size and increase your meal frequency to five or six times a day. Hypoglycemia can also be caused by alcohol consumption and eating meals with a high carbohydrate content. Use proteins along with fruits and vegetables as your energy source. If symptoms are experienced, use a protein-based snack or milk. Do not use sugar. If these lifestyle modifications do not prevent or stop hypoglycemia, contact the office for assessment and treatment.

Anorexia

This is a complete lack of appetite. Forgetting to eat is a problem some patients experience. This is dangerous. Make every effort to eat three meals a day, along with two snacks. If your aversion to food is too great and you are feeling unable to eat solids, protein shakes should be added. Also, if your weight loss is excessive, call the office for an appointment. Psychological counseling may be needed as well.

Altered Bowel Habits

Bowel habits may be different after surgery. In the beginning, bowel movements will be loose. Expect about three to five per day. They will not be regular until you start eating solid foods again. At this time, you may expect to have one bowel movement every 1 to 2 days. Quantity should be less than what they were before surgery.

If you are uncomfortable and have pain with emptying, increase your fluids (water) and fiber intake. As long as stool is not excessively hard, there is no need for concern. Should constipation continue, you may use an over-the-counter stool softener such as Colace. If you become constipated for more than 3 days, call the office.

Fullness and Hunger

Hunger is not often associated with the actual need for food. It is more often associated with our emotions. As you embark on this new lifestyle change, practice becoming more aware of your eating patterns, and use your journal to track any patterns that you may not have been previously aware of. Sometimes writing down our behaviors helps us to recognize where a change may be needed.

Your choice of foods is also important. Too many carbohydrates will leave you feeling hungry because they cause your blood sugar levels to rise and fall quickly. Whereas proteins produce a more stable variation in your blood sugar levels and will reduce your feelings of hunger.

Bring your journal with you so that the team can evaluate your needs and your progress.

Hair Loss

It is possible that men and women will notice thinning of the hair approximately 3 months after surgery. For the majority of patients, the hair is naturally restored within a short period of time. Several techniques will help with this.

- 1.** Consume enough protein (60 to 100 grams per day).
- 2.** Take your supplements as directed to include Biotin.
- 3.** Drink at least 64 oz. of fluids per day.

Normally, patients who adhere to the protein and supplement guidelines will have minimal hair loss.

Dizziness

Occasionally you may feel lightheaded upon rising in the morning. This may be due to insufficient fluid intake. If this should occur, do not panic. Situate yourself in a comfortable, safe position and your body will quickly adjust. Dizziness can be caused by low blood pressure or low blood sugar. It is important for people taking antihypertensives and or insulin to monitor their levels frequently, especially during the period of rapid weight loss.



Strong Urine

Your urine is going to look darker and have a more noticeable odor after surgery. Don't be alarmed by this. This can be a sign of dehydration. You should increase your fluid intake. As long as you are voiding two to three times a day, your kidneys are functioning adequately.

Joint Pain

Weight loss generally resolves or improves joint pain and osteoarthritis in the majority of patients. If joint pain persists, patients may want to try glucosamine. This can be found over the counter at most pharmacies. Remember not to take any aspirin or Motrin products.

Edema

During the early phase of weight loss, it is common for the patient to lose fluid rapidly. After this initial fluid shift, there are natural variations in fluid retention that may occur in response to the female hormone cycle.

There are also patients with fluid retention due to low protein stores, especially albumin. This is more likely to occur in the immediate postoperative period and can be corrected by

persistent and careful adherence to the recommended high-protein diet. Additional protein supplementation may be necessary.

Emotional Ups and Downs

There are many physiological and emotional changes that will occur after surgery that influence mood, including hormonal and metabolic changes, and altered production of certain brain transmitters that affect sleep, memory, and overall feelings of well-being. Furthermore, food is no longer a means for coping with stress. For all these reasons, you are likely to feel as though you are on an emotional roller coaster. With time, these emotional extremes will lessen.

Attending support group meetings and talking with other bariatric or weight loss surgery patients will help you with this. You may even want to arrange an appointment with a bariatric psychologist. For a list of local psychologists who specialize in weight loss, ask your bariatric weight loss coordinator. Another solution is exercise. This has been proven to provide patients with a sense of well-being and decreased stress.

Cold Intolerance

Some patients may experience frequent coldness after surgery. You may find that you are turning up the thermostat or wearing a sweater most of the time. This is normal. It is because of the metabolic changes as well as the weight loss you are experiencing. As you lose weight, you are losing your “insulation”.

Menstrual Cycles

It is not uncommon for menstruating women to have an irregular cycle for the first few months after surgery. This is because of the hormone changes related to the weight loss. Fat carries hormones, and as fat is broken down, it causes irregularities. If your cycles do not normalize by the third month, you should contact your gynecologist.

Diminished Alcohol Tolerance

After bypass, alcohol is absorbed differently. Normally the stomach would metabolize a portion of the alcohol, but now the alcohol passes very quickly into the intestines where it is

rapidly absorbed. This results in rapid intoxication and toxicity. Patients should not consume alcohol during the rapid weight loss period because metabolic changes are occurring in the liver that will substantially increase the risk for liver damage. In addition, alcohol prevents the absorption of nutrients, such as thiamin, and this can cause deficiency after surgery.

Birth Control/Pregnancy

It is important for all women of childbearing age to continue with appropriate birth control measures or abstinence during the period of rapid weight loss (1 year). Pregnancy during this time would have very serious health consequences to the mother and the child. These recommendations are not intended to challenge or violate any cultural or religious beliefs but to decrease the possibility of birth defects and miscarriage.



Blood Donations

Because bypass surgery reduces the amount of iron, folic acid and vitamin B-12 absorption, the body will take longer than normal to replace lost red blood cells. Because of this, it is recommended that you do not donate blood.

Weight Loss Plateaus

If you follow the eating advice and the choice of foods recommended to you by our nutritionist, as well as our exercise regimen, you will generally experience a steady pattern of weight loss. However, sometimes your weight loss will plateau for a short period of time. A weight loss plateau that lasts for more than 2 weeks may be caused by variations in diet, fluctuations in fluid balance, muscle gain or reduced metabolic rates due to muscle loss.

Sugar or carbs may be the culprit. Both can increase fluid retention and also stimulate the production of insulin, which in turn, reduces fat utilization and promotes the storage of fat. To help determine the cause of the plateau, you may want to start journaling again. Write down everything you eat and drink every day as well as how you are doing emotionally.

Fluid retention may also be responsible for weight loss plateaus. Many people will accumulate fluid in response to stress, lack of sleep, a heavy workload or hormonal changes during your menstrual cycle. Generally, with fluid retention, weight loss resumes within a few days.

A weight loss plateau may occur because of muscle loss after surgery. Muscle loss leads to a decrease in metabolic rate (calories burned), resulting in a reduction of weight loss. Regular exercise, including cardiovascular and strength exercises, will increase muscle mass and metabolic rate, causing weight loss to resume.

When increasing the intensity of an exercise program, you may, at first, fail to notice a change in body weight because your body is gaining muscle. Over time, however, the greater muscle mass will lead to an increase in metabolic rates, helping your body to burn more calories, lose more fat and maintain long-term weight loss.

Weight Gain

It is possible to gain weight back after surgery. The equation of energy-in vs. energy-out will always apply. Bariatric surgery is a powerful tool that will only be successful in the long term if you use it properly. Returning to old behaviors such as snacking, grazing, drinking carbonated beverages, drinking alcohol, choosing high-calorie foods, eating and drinking at the same time or even not exercising will have weight gain effects. The good habits you form during the first year will be the foundation that helps you stay successful for the long term. Office follow-up is important if you are gaining weight back. We will help you analyze potential reasons and get you back on track.

Treating Out-of-Office Health Problems

Not many doctors are familiar with bariatric surgery. It is **your** responsibility to make certain that your surgeon or surgeon's office is notified by any doctor who admits you to a hospital or who is going to treat you on an urgent or emergency basis.



Life at Home

Keep in mind that surgery is only a small piece of the picture. This surgery can help you feel full faster and stay full longer, but it will not eliminate the emotional desire to eat. You need to make a commitment to lifestyle change **forever**. Not just until you have lost the excess weight. Nutrition guidelines must be followed for life to avoid complications, promote weight loss, prevent regain and ensure good health. This is about making the nutrition and exercise guidelines part of your life, **for life**.

This procedure will also significantly influence the emotional relationship you once had with food. There are many ways food influences our lives that we do not consciously think about. We all need a certain amount of nutrition to stay alive and healthy, but satisfying our needs for nutrition isn't the only reason we eat. Some people eat more out of habit than from nutritional need. Being aware of the impact that food has on our life is the first step to living with food and not living for food. Some use food as a drug, a substance they take to relax, stimulate, console and "numb" themselves. Some view food as a companion that soothes a sense of loneliness or substitutes for human interaction or other satisfying activities. Feelings of boredom, stress or unhappiness that are often mistaken for physical hunger will not be satisfied by food. Emotional hungers will only be satisfied by addressing the feeling or emotion (e.g., taking a walk, calling a friend, seeing a counselor, etc.). When your relationship with food gets out of balance, and when you habitually use food to meet non-nutritional needs, you're going to gain weight. These issues of balance and imbalance

support the fact that real change is what matters most.

Throughout the first several months, you will have many new experiences and emotions. It is important to use these early months to create new habits and a new foundation concerning the relationship you have with food.

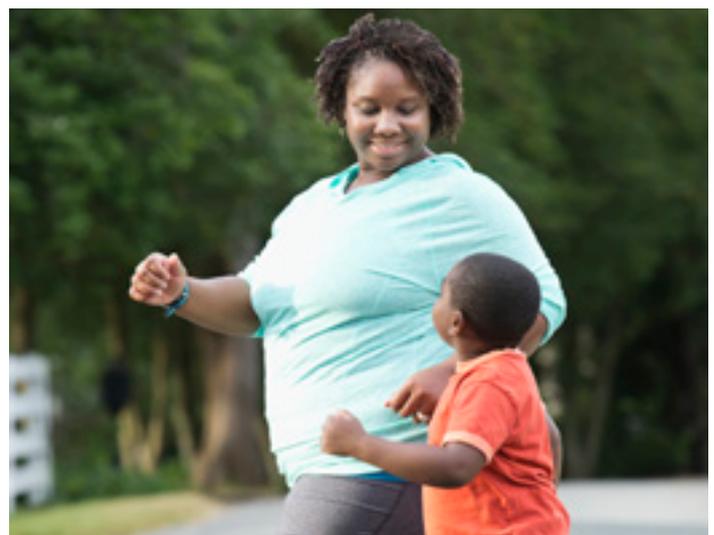
From now on: You will “eat to live”, **not** “live to eat”.
You will take responsibility for your successes and your failures.
You will make good, healthy food choices.
You will understand the importance of listening to your body. Know the signs of fullness.
You will drink the right amount and the right kind of fluids every day.
You will make exercise a permanent part of your life.
You will remember to take your vitamins every day.

Follow-up Care

You will have four to five scheduled appointments with your surgeon in the first year after surgery. Your first appointment will be 1-2 weeks after surgery, followed by the next appointment 4 to 6 weeks postop. You will then return at 3, 6 and 12 months postop. You will meet with the dietitian after surgery and continue to follow up with the bariatric providers at least once a year for the rest of your life to have annual bloodwork and a physical exam done.

Exercise

Studies have found that individuals who are morbidly obese have an increased capacity to store fat and a reduced capacity to burn fat. Even after weight loss, your body’s ability to burn fat is not improved, increasing your risk for weight regain. Moderate exercise performed daily causes changes in the ability of your muscles to burn fat. Moderate exercises, such as a brisk walk, cycling at approximately 8 mph, swimming or jogging



in the pool, cleaning the house, mowing the lawn and gardening, when performed regularly and for a period of 30 minutes to an hour daily are apparently the best for increasing the oxidation of fat. These exercises burn the most fat and are most effective in helping to lose weight or maintain weight loss if performed before breakfast or at least 6 hours after a meal.

Our postoperative exercise program consists of three major components:

- Cardiovascular
- Weight-bearing
- Flexibility

Cardiovascular activities help to reduce the risk of heart disease, improve metabolism, regulate hormone levels such as insulin, and increase muscle endurance and strength with subsequent enhancement of metabolic rate. Furthermore, cardiovascular exercise stimulates fat breakdown from fat storage and increases the body's use of fat for fuel.

These exercises include walking, cycling, swimming, dancing, aerobics, running, skiing, soccer and other endurance sports.

Weight-bearing exercises help to prevent muscle and bone loss. Some examples include isometric exercises, elastic band exercises, dumbbell and stationary weight training.

Flexibility exercises help you stretch your muscles and increase your range of motion. They are recommended at all stages after surgery.

You will be given exercise recommendations at a follow-up appointment once your doctor feels you are ready to begin exercising again.

Emotional Changes After Weight Loss Surgery

A multitude of factors may lead to the possibility of depressive or other distressing mood changes after weight loss surgery. To help combat these feelings, we suggest:

- Attending a bariatric support group and/or using online support
- Keeping a journal of your experiences and feelings
- Developing healthy ways to deal with stress/negative emotions that do not involve eating (e.g., hobbies, exercise, movies/theatre, yoga, meditation, music, talking to friends, reading, gardening, travel, etc.)

- Enlisting the help of your personal support group (spouse, family, friends) by informing them of your decision and letting them know how they may help you in your lifestyle change
- Regular and consistent exercise
- Seeking therapy options if you need somewhere to voice your feelings

While the first 2 or 3 months after surgery are a time of adjustment and transition, and mild depressive feelings are frequently experienced, severe depression is not expected and warrants treatment. If you exhibit five or more of these difficulties within a 2-week period, it would be wise to seek professional help. They are as follows:

- Depressed mood most of the day, every day
- Markedly diminished interest or pleasure in almost all activities most of the day, nearly every day (including activities that were previously enjoyed)
- Sleeping too much or too little most days
- Feeling agitated or slowed down most days
- Significant loss of energy that cannot be otherwise explained
- Feelings of excessive guilt or worthlessness
- Decreased ability to concentrate or make decisions
- Changes in appetite beyond that expected after weight loss surgery
- Irritability or increased physical complaints without an apparent physical cause

Support Groups and Helpful Websites

Cape Fear Valley Health Bariatric Support Group

Share your weight loss journey, ask questions and share ideas with other weight loss patients. Meets the 3rd Thursday of each month @ 6 p.m. Contact **910-615-BARI** for more information.

American Society for Metabolic & Bariatric Surgery | www.asmb.org

Details and benefits of bariatric surgery, a list of surgeons and a list of allied health professionals

Bariatric Advantage Vitamins | www.bariatricadvantage.com

Bariatric vitamins and nutrition products

Bariatric Eating | www.bariatriceating.com

Protein products, recipes, online support and education

Bariatric Edge | www.bariatricedge.com

Information on bariatric surgery

Bariatric Support Centers International | www.bsourcesourcecenter.com

Bariatric support, weight loss tools and recipes (some areas in this site require a paid subscription)

Achieving Success

It is important to remember that bariatric surgery is not an end to your obesity. Bariatric surgery is a journey. The first step is the surgery, but the larger piece is what happens after. Your success depends on thoroughly understanding your new lifestyle and sticking to the modified diet and exercise changes. You will need to listen to your body when you eat and learn when your smaller stomach is satiated. This “tool” will help you better control your weight for the rest of your life. Use this booklet to help achieve success and know that your team is here to help you along the way when you have questions.



Quick Reference to Common Problems and Solutions

| Symptoms | Cause | Treatment |
|---|--|---|
| Excessive salivation (frothing) heartburn, nausea, regurgitation, pain, pressure or fullness in chest | Food not passing through the pouch correctly Did not chew well enough | Relax Drink sips of warm fluid Stay on liquid diet for 12 to 24 hrs. If no relief in 24 hrs., call the office. Remember to always chew food well and eat small bites |
| Nausea and vomiting | Common to feel nauseated for a few months after surgery Advancing diet too fast | Frequent vomiting or unable to keep liquids down, call the office Drink liquid protein supplements to keep nutritional levels up Follow dietary guidelines as directed |
| Frothing or excessive salivation | Mucus backing up into the esophagus causing a clear vomit | Small bites, chew well, follow dietary guidelines Drink warm fluids If persists, call the office |
| Gas pain Shoulder pain Foul-smelling gas | Common the first week after surgery. R/T gas used during procedure Foul-smelling gas and excessive belching is common months after surgery r/t change in food passage | Gas X, Liquid Mylicon, Mylanta for symptom relief Walking and deep breaths will remove air from abdominal cavity Darvon may help with odor |
| Hair thinning or shedding | Lack of protein This is normal and often reversible | Increase your protein. 60 to 100 mg/day Re-growth takes up to 12 months Try Biotin supplements and or hair care products (Nioxin) to stimulate growth |
| Bowel habit changes | Change in diet Constipation Diarrhea caused by too concentrated protein intake May be lactose intolerant; common after bariatric surgery | Constipation: increase fluids, increase or add fiber supplements (e.g., MiraLAX, Benefiber, Colace) Diarrhea: dissolve protein and don't consume >30 mg per serving May take Imodium Call office if diarrhea persists or stools become bloody or black and tarry |
| Headaches | Lack of caffeine Seasonal allergies Dehydration | Tylenol as needed/as directed Sudafed, Claritin, Allegra and/or nose spray for allergy relief Increase fluid intake to 64 to 100 oz/day |

Acknowledgment

I have read the complete Cape Fear Valley Health Bariatric Program Patient Handbook in preparation for bariatric surgery and understand the contents.

Patient Name (printed)

Patient Signature

Reference for
Pocket Placement
DO NOT PRINT



CAPE FEAR VALLEY
H E A L T H

www.capefearvalley.com