

Laparoscopic Bariatric Surgery Manual



Southern Regional
Medical Center

The Center for Bariatrics & Healthy Weight

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What is the Process?

Before Surgery

- Information Seminar
- Initial consultation
- Insurance verified and clearances reviewed with Patient Advocate
- Nutritional consultation and completion of any required weight loss visits
- Completion of all other required appointments/clearances
- Support group participation

Around the time of Surgery

- Pre-op appointment with Surgeon 2 weeks before surgery
- Endoscopy (EGD) 1-2 weeks before surgery with surgeon
- Bariatric surgery performed

After Surgery

- 2 week post-operative appointment with surgeon
 - When applicable 1 week appointment for drain removal
- 6 week post-operative appointment with health care provider
- 3-6 months: appointments with health care provider, nutritionist, exercise physiologist, mental health professional, support groups as needs are identified
- 6 months and yearly appointments: check up with health care provider
- At a minimum yearly appointments should be continued indefinitely where we check weight goals, blood lab work and overall health

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Morbid Obesity and Bariatric Surgery

Morbid obesity is a chronic disease that affects more than 15 million American adults. The health consequences of morbid obesity are numerous and can be disabling. Often, persons with morbid obesity suffer with more than one health concern, and this can result in a shortened life span and have a negative impact on your quality of life.

Health Consequences of Obesity:

Obesity increases the risk of many health conditions including the following:

- Coronary heart disease, stroke, and high blood pressure
- Type 2 diabetes
- Cancers including colon, breast, endometrial
- High total cholesterol and triglyceride levels
- Liver and gallbladder disease
- Obstructive sleep apnea and other respiratory problems
- Degenerative of cartilage and bone within a joint (osteoarthritis)
- Reproductive health complications and PCOS and infertility

For many patients struggling with obesity, diet and exercise alone is not enough. Bariatric surgery provides a powerful tool that will help you achieve optimal weight loss.

Bariatric surgery is major surgery. Your surgeon will perform the surgery laparoscopically (using several 1-2cm incisions). Laparoscopic surgery reduces complications and recovery time. An obese patient's risk for complications following major surgery is increased when compared to non-obese patients undergoing similar procedures.

At Southern Regional Medical Center, your health and safety is our priority. Prior to surgery, we will screen you for potential risk factors that may lead to complications. You will be required to complete a series of testing and clearances before you are confirmed safe to proceed with surgery.

Although complications can be minimized, they cannot always be avoided. Below is a partial list of the complications patients must consider when thinking about proceeding with surgery. These complications will be listed on an operative consent form and reviewed in person prior to surgery.

Possible complications after surgery:

- Cardiovascular: heart attack, stroke, or death
- Respiratory: pneumonia, pulmonary embolus
- Wound infection (<5%)
- Stomach/Intestinal problems: leak from the stomach or intestinal surgical sites (<1%), intestinal blockage (1-2%), stomal stenosis from scar tissue (<1%), dumping syndrome (cramping, bloating, diarrhea after eating).
- Injury to nearby organs: spleen-splenectomy (<1%), significant liver-bleeding (<1%), or potential for transfusions (<5%)
- Malnutrition: excessive weight loss, vitamin deficiencies, hair loss, bone weakening, gallstones or kidney stones

Signs and Symptoms of Complications

Leak at the Anastomosis (*Connection from your small intestines to new stomach pouch*)

During your surgery the surgeon will check if your new connection has an air leak. This is done by filling your new pouch with air and the area around it with water. If bubbles are seen, the anastomosis will be reinforced. The following may be signs of a leak at the connection and may require intervention:

- Call the office if you experience:
 - Increased heart rate
 - Feeling of anxiety
 - Fever more than 101°F
 - Worsening Shortness of Breath
 - Uncontrolled pain
 - Green/brown/yellow drainage from drain (if applicable)

Pulmonary Embolism

A pulmonary embolism (PE) is a blood clot that has traveled from another part of your body, usually your legs, that travels to your lungs and blocks them from being able to use oxygen.

This is a Medical Emergency!!!

Please Go Straight to the Closest Emergency Room if you Experience:

- Shortness of breath and Difficulty Breathing
 - May happen at rest and start suddenly
- Chest pain
 - Under the breast bone or on one side
 - Noticeably sharp or stabbing, aching, or a dull heavy sensation
 - May get worse with deep breathing, coughing, eating, bending, or stooping (may bend over or hold chest in response to pain)
- Rapid heart rate (consistently over 110)
- Intense Anxiety
- Cough
 - Begins suddenly and may contain blood streaked sputum

What can you do to prevent a Pulmonary Embolism?

In the **hospital** you will be required to **WALK, WALK, WALK!!**

The day of surgery, the nurses will have you walking in the halls. This will help to decrease the chance of a blood clot forming in your legs. You will also be given a blood thinner right before surgery, and then every day you are in the hospital after surgery. You will also have compression socks and squeezers on your legs while lying in bed to decrease risk.

At **home** you will be required to **WALK, WALK, WALK!!**

While awake, you will be required to walk for 5-10 minutes every hour. For the first few days limit continuous sleep to no more than 4 hours at a time to limit being immobile for long periods of time. You can resume sleep after you walk to get adequate daily rest.

- TIP: choose the bathroom furthest from your room.
- It is ok to use stairs as long as you take it slow

- Do not use treadmills or other mechanical devices until you are off of narcotics
- Advance walking distance and length of time as tolerated



Dehydration

This is the most common side effect or complication.

- It is important to drink 64oz (8 x 8oz glasses) of water a day
- You will be unable to drink as you are used to. Instead, you will need to sip a little at a time throughout the day whether you feel thirsty or not.
- Severe dehydration may lead to hospitalization and make nausea and pain worse.

To prevent this:

SIP, SIP, SIP all day long!!!

- TIP: room temperature liquids are usually tolerated better
- Avoid drinking straws
- Avoid carbonation

Wound Infection

After surgery you will have multiple small incisions (usually 5-6) on your abdomen

You will have surgical glue over the incisions – glue is water proof, do not pick it off.

- Please call your surgeon if you experience:

- Redness at the incision site that is spreading
- Increased tenderness or warmth over incisions
- Fever >101°F
- Yellow or green discharge from incisions
- Bleeding that saturates more than 2 dressings
- You may shower after 24 hours, but do not scrub or rub them

Vitamin Deficiency

After your surgery, it is very important that you continue to take vitamins daily as directed by your health care provider. Every vitamin that you are directed to take is essential for your overall health and wellbeing.

Vitamin	Functional use	Without it...
<i>Calcium</i>	Maintains bone strength and helps prevent bone fractures	Increased risk of bone fracture and osteoporosis
<i>Vitamin D</i>	Aids with calcium absorption	Increased fatigue, may have tingling and joint pain
<i>Vitamin B12</i>	Supports the nervous system	May have memory loss, numbness, tingling, paralysis
<i>Iron</i>	Helps oxygen throughout the body	Tiredness and lack of energy. Increased risk of anemia and heart attack
<i>B complex (B1 and B6)</i>	Supports metabolism	May have memory loss, numbness, tingling, paralysis

Recommended Vitamins

Vitamin	Dosage options
<p><i>Multivitamin</i> *Mandatory after gastric bypass and gastric sleeve*</p>	<ul style="list-style-type: none"> - 200 % (RDA) Recommended Daily Allowance - Take 1-2 multivitamins daily (AM)
<p><i>Vitamin B-12 (Cobalamin)</i> *Mandatory after gastric bypass*</p>	<ul style="list-style-type: none"> - 500mcg or more every day by mouth (AM) - 1000 mcg every 2-4 weeks by injection
<p><i>Calcium + Vitamin D</i> – caffeinated products, spinach, and whole grain products may decrease absorption. Take at least 1-2 hours before or after iron, since calcium will decrease iron absorption. *Mandatory after gastric bypass and gastric sleeve*</p>	<p>1500-2000mg/day + 5000 IU Vitamin D</p> <ul style="list-style-type: none"> - Divide into 2-3 doses per day with meals - Choose a brand that includes calcium citrate and Vitamin D3. The citrate form of calcium is better absorbed since it doesn't require the acid from your stomach to be absorbed.
<p><i>Iron</i> – take 1-2 hours before or after calcium. Do not take with milk, cheese, eggs, whole-grain breads and cereals *Mandatory after gastric bypass*</p>	<p>100% RDA</p> <ul style="list-style-type: none"> - Ferrous Sulfate – 325mg/day - Ferrous Gluconate – 325mg/day - Elemental Iron – 18-27mg/day - (PM)
<p><i>B complex (B1 and B6) – optional</i> <i>Zinc – optional</i></p>	<p>10-20 mg daily</p>

You will not be able to obtain all recommended vitamins in a single multivitamin

- To minimize the number of pills taken, start with a multivitamin that contains the appropriate amount of iron and B vitamins. You will need to take additional

calcium and vitamin D. The calcium and Vitamin D in the multivitamin will likely not be enough.

- You will not be able to swallow whole pills for 6 weeks. The recommended forms during this period are liquid, chewable, dissolvable, nasal spray, and injectable. Patches are not recommended as first line because their absorption is not consistent.
- After 6 weeks you will be able to swallow pills no larger than the size of a plain M&M. That may require larger pills to be crushed or broken in half.
- Your levels will be checked with blood work done at 6 weeks, and then every 6 months to a year after surgery.
- Individual recommendations may be made based on your lab results.

Preparing for Weight Loss Surgery

Pre-Operative Preparation

In anticipation of bariatric surgery, preparation includes several steps to optimize overall health and to begin the process of making new life style behavior modification choices.

- Stop all carbonated beverages
- Stop all beverages that contain caffeine
- Begin a regular exercise routine (consult with physician first)
- Begin cutting food into small pieces and practice chewing very well (15-20 times per bite)
- Join a monthly support group

Begin the practice of not drinking with your meals. Stop drinking 30 minutes before you eat and wait at least 30 minutes after the meal is finished. This will be necessary after your surgery and needs to become a life-long habit.

Have your prescribing physician convert all of your time released or extended release medication to non-time released formulations. If you are unsure about a medication, please contact your pharmacist or prescribing physician.

Smoking Cessation

Smoking and surgery do not mix! You will be required to stop all smoking and nicotine products 6-8 weeks prior to surgery. It is dangerous to continue smoking after surgery as well. Nicotine increases the risk of complications such as leak and ulcers. Smoking also increases the risk of pulmonary complications with anesthesia. Hookah, vape pens, and nicotine patches are also discouraged. You will be tested for nicotine prior to surgery to verify it is cleared from your system. You may be asked to sign an agreement saying you understand that active smoking is a contraindication for bariatric surgery and that you will stop smoking prior to your procedure. Please contact your primary care provider if you need assistance in smoking cessation.

Two Weeks Before Surgery

You will be started on a high protein diet. A whey protein shake from most local grocery stores or retail stores such as GNC, Wal-Mart, and Target can be purchased. The protein shakes must be low in sugars and carbohydrates (<8-10gm per serving). Keep total carbs to less than 50gm per day, and total calories 1200-1500 kcal per day. Drink a shake for breakfast and for a snack. Eat a lean meat and vegetable for lunch and dinner. You may drink other sugar free liquids in between meals.

This will help shrink the liver prior to surgery to make the surgery easier and therefore safer to perform.

One Week Before Surgery

Do not take blood thinners. This includes Coumadin, Plavix, Xarelto, Aspirin, Ibuprofen, or other arthritis medications that are anti-inflammatory. These medications can cause stomach irritation and increase risk of bleeding after surgery.

2 Day Liquid Diet Prior to Surgery

The last two days prior to surgery you will be on a clear liquid diet ONLY. This would include:

<i>Apple or other clear juice (pulp free)</i>	<i>Water or flavored water products</i>
<i>Clear broth (chicken, vegetable, or beef)</i>	<i>Protein drinks</i>
<i>Jell-O (any color)</i>	<i>Low fat / skim milk</i>
<i>Popsicles (sugar free)</i>	<i>NO SOLID FOOD</i>

Endoscopy (EGD)

You will be scheduled for an EGD prior to surgery. An EGD is a procedure in which a scope or small camera is passed down your esophagus, stomach and small intestine. The EGD will allow your surgeon to examine your upper GI tract prior to surgery to make sure there are no abnormalities that need to be addressed.

Morning of Surgery

You will receive a call from the office in the day or two prior to your EGD or surgical procedure notifying you when and where to report in the hospital. You should have signed all operative consents at the pre-operative class. Please remember to bring a picture ID and /or drivers license with you to the hospital. We will need to verify your identification prior to placing an arm band on your wrist.

You will be asked to remove all of your clothing and put on a patient gown and pair of no-slip socks. The nurse will start an IV during this time.

You will receive medications that have been ordered by your physician or anesthesia in preparation for surgery.

It is critical you let the nurse know if you consumed any medication or food the morning prior to reporting to the hospital.

In this holding area you will meet the care team taking care of you during surgery. The anesthesiologists will speak to you as well and will give you some medication that will make you relaxed and likely drowsy prior to being taken to the operating room suite.

Your family members will be asked and directed to wait in the surgical waiting room. Please limit family members to no more than 3 adults. Children under the age of 12 should not accompany patients to the hospital.

After Surgery

You will be taken to the recovery room after surgery where your respiratory status and other vital signs will be monitored. This is to be sure you are stable before sending you to the nursing floor. If there are any concerns regarding your stability, you may be sent to the Intensive Care Unit to be monitored more closely in this post-operative period. This does not happen often, but you should be aware of the possibility.

You may experience pressure in your abdomen after surgery which is typical. Although this is common, please inform your nurse of any discomfort that you may be experiencing.

Discharge Instructions

Bathing:

You may shower 48 hours after surgery. No submerging your body in water for at least 2 weeks after surgery, and it may be longer if your incisions take longer to heal and the scabs have not fallen off. This includes baths, swimming pools, or hot tubs.

Dressings:

Keep the dressing dry for 24 hours. The surgical glue is water proof and will eventually peel and fall off on its own. Do not pick them off! The exception to this is if you are found to have an allergic reaction to the glue and develop a rash around each of the incisions. In this case the glue can be peeled off after consulting with your surgeon.

Activity:

You may resume usual self-care and activities of daily living. You may drive when you feel you are comfortable doing so and off of narcotic pain medication.

- You are cleared to start walking once the anesthesia has worn off and you are steady on your feet
 - Walk every 1-2 hours for 5-10 minutes while awake
 - Use your incentive spirometer 10 times per hour while awake while in the hospital. After a few days you should use it 6 times a day for 2 weeks. This helps prevent pneumonia and your nurse will show you how to use it properly.
- No lifting, pushing, pulling, or tugging more than 20lbs for 2 weeks.
- No core or abdominal exercises i.e. sit-ups or crunches for at least 4 weeks after surgery

REMEMBER TO STOP TAKING YOUR MEDICATION FOR DIABETES AFTER YOUR DOSE ON THE DAY OF SURGERY. BECAUSE BLOOD SUGAR CAN CHANGE SIGNIFICANTLY AND QUICKLY AFTER SURGERY, BE SURE TO DISCUSS WITH YOUR PCP A PLAN OF HOW TO DECREASE YOUR MEDICATIONS AFTER SURGERY SO THAT YOUR BLOOD SUGARS DO NOT GET TOO LOW. CONTINUE TO CHECK YOUR SUGAR AT HOME. NOTIFY YOUR PCP IF YOUR SUGAR KEEPS DROPPING BELOW 50, OR IS CONSISTENTLY ABOVE 150. ALL OTHER MEDICATIONS SHOULD BE DECREASED OR DISCONTINUED PER INSTRUCTIONS FROM YOUR PCP AS WELL. PLEASE DO NOT ABRUPTLY STOP TAKING MEDICATIONS UNLESS DIRECTED BY HEALTH CARE PROVIDER.

Tips for Recovering after Surgery

TROUBLESHOOTING

What to do if food gets 'Stuck'?

When food is not passing through your pouch or sleeve, you may experience any or all of the following:

- Excessive Salivation (frothing)
- Heartburn
- Nausea
- Cramping
- Vomiting / dry heaves
- Pain
- Thirst

If this happens, take the following steps to alleviate the discomfort as quickly as possible:

- *RELAX!! Stress will only increase the discomfort. Lay down if possible.*
- *Don't eat anything. Drink sips of water. Warm liquids can sometimes help to relax the stomach better than cold fluids.*
- *Stay on liquids for several hours.*

**** IF YOU CANNOT TAKE IN LIQUIDS FOR 24 HOURS, PLEASE CONTACT THE OFFICE FOR FURTHER ADVICE****

Did I chew my food well? Did I take too big of a bite? Did I eat too fast?

If you do not chew your food well enough, the bites you swallow will be too large to pass easily through your gastric pouch or sleeved stomach. The un-chewed bites will not be able to continue to go down and are more likely to cause discomfort. Your food should be cut to the size of your 'pinky' nail to be small enough.

Be careful with fibrous food.

Although you will learn fiber is good for you, food that contains many fibers, such as asparagus or celery, can cause the food to become stuck. This can happen when food is

not chewed well enough to break it up into small pieces and your saliva cannot break it down. If you would like to eat fibrous foods occasionally, be sure to cook them well, cut into very small pieces, and chew thoroughly.

Nausea and vomiting

It is very common for post-operative patients to feel nauseated during the first few months. If this nausea causes frequent vomiting, it is important to call or visit the office to see if any treatment or testing needs to be done.

When you feel full, stop eating and put the food away. Don't pick at it if you are still at the table. A meal should not take longer than 20 minutes to finish. If it is taking longer, you are probably waiting too long between bites, or getting full and waiting for it to pass through to give you more room to continue eating. The goal is not to finish your meal; it is to learn what full means and feels like.

One of the causes of nausea and vomiting is noncompliance with nutritional guidelines. Hence, it is vital to follow the provided guidelines.

Any problems with nausea or vomiting should prompt the following questions and necessary changes to avoid further pain and discomfort:

- *How long am I taking to eat and/or drink?*
- *Did I drink fluids with my meal or too soon before/after the meal?*
- *Am I eating more than I should?*
- *Am I chewing solid foods until they resemble a pureed consistency?*
- *Did I lie down too soon after my meal?*
- *Did I eat hard-to-digest foods such as tough meat or fresh bread?*
- *Did I eat foods from the next stage of the menu plan before being cleared by the physician to do so?*

**** IF VOMITING PERSISTS THROUGHOUT THE DAY, DO NOT EAT SOLID FOODS. SIP ON CLEAR LIQUIDS (STAGE 1). IF VOMITING OCCURS FOR MORE THAN 24 HOURS, CONTACT THE OFFICE IMMEDIATELY.****

Frothing

As the new gastric pouch or sleeved stomach heals, mucous is excreted to help break down food. At times, it is common for the mucous to back up in the esophagus and cause frothy clear vomiting. This is typically short lived and usually resolves by the 3rd

month. Frothing is not a complication, so try to drink warm water 30 minutes prior to your meal to help break down the mucous. This should help to better tolerate the meals.

Gas Pains

Gas pains are common in the first few weeks after surgery. Sometimes these pains can be severe and more uncomfortable than the 'surgical' pain. To help relieve these pains, try to increase activity level to include consistent walking. You can also try anti-gas over the counter medications that contain simethicone. Examples include *Mylanta*, *Maalox*, *Gaviscon*, *Gas X*.

Gas pains or spasms may occur months or even years after your bariatric surgery. The cause for random episodes is often unknown, and this discomfort will usually relieve itself after a short time. If the discomfort from gas or spasms persists, contact your surgeon for evaluation and possible treatment with medication to relax the intestine.

Hair Loss

If you notice hair loss/thinning, especially around the third month after surgery, you should consult with the dietitian to help increase your protein intake. Hair loss is often attributable to protein deficiencies. Increasing your protein intake may help to reduce hair loss. There are no 'guarantees', however. Hair regrowth frequently occurs after several months. We recommend increasing protein to 80gm daily. Adding Biotin may also help, as it is a vitamin specifically designed to increase hair/nail strength and growth.

Bowel Habits

It is common to have some temporary bowel changes. These changes range from constipation to diarrhea. If you do not move your bowels by the fourth day at home, you may try a mild laxative such as *Milk of Magnesia*. Follow the bottle instructions.

Maroon or blood tinged stools should be reported to your surgeon, as this may indicate need for testing and or medications to reduce ulcer formation. Please note it is common for the first one or two bowel movements after surgery to have a small amount of blood due to the recent surgery. Please contact the office if it persists.

- **Constipation**

- After surgery, constipation is common. Remember food intake is very small compared to before surgery. As a result, bowel movements will be decreased. Many people report having a bowel movement every 2-3 days. If stools are hard, be sure to drink an adequate amount of fluid daily (48-64 ounces). Also, when appropriate, include more fiber-containing foods in the meal plans such as oatmeal, bananas, fruits, and fiber products. You may also try *Smooth Move Tea*, *Apricot or Prune juice (unsweetened)*, *Milk of Magnesia*, or *Miralax*.

- **Diarrhea**

- Immediately following surgery, there may be bouts of diarrhea. This should be temporary. If the diarrhea occurs more than 3 times in a day, you may take *Imodium* or other over the counter equivalent. If it is not possible to maintain adequate hydration due to persistent diarrhea, contact the office.

If constipation, bloating or diarrhea occur for a prolonged period, it may be helpful to try taking a daily probiotic. Probiotics are naturally occurring ‘good’ bacteria that live in our gastrointestinal tracts. After surgery or with the use of antibiotics, this sensitive balance of good bacteria can be altered allowing the ‘bad’ bacteria to take over. Probiotics from foods and supplements can play a role in helping restore this balance and alleviating symptoms of gas, bloating, diarrhea, and constipation. They are available over the counter at most grocery and drug stores, and online.

Dumping Syndrome

Dumping syndrome occurs when the undigested food from your stomach moves rapidly into your intestines. This is most common after procedures that involve bypassing some of the intestine, such as gastric bypass or duodenal switch. Usual symptoms include abdominal cramping, nausea, diarrhea, hot flashes, or dizziness. Symptoms can start immediately after eating or 1-3 hours later. Dumping syndrome commonly occurs after eating foods that are high in carbohydrates and sugar. Dumping syndrome is typically managed by adjusting your diet.

Sleeping

You may sleep in whatever position is comfortable for you. Many people find that sleeping on their stomach may not be comfortable for many weeks due to abdominal

discomfort. If you are having difficulty sleeping, this is normal and most likely due to the busy 24- hour schedule of the hospital environment but may persist for a while after you get home. Some people find that taking their pain medication before sleep will help them feel more comfortable and get to sleep. You may also try a mild crushed 'Tylenol PM' to help if insomnia persists.

Headaches

Some people who are without anti-depression medication for several days may have migraine type headaches as a withdrawal effect. Please resume this medications ASAP. (No extended or time released formulations)

Returning to Work

You should plan on taking 7-14 days off from work. We recommend to those who must return to work before two weeks, begin with a less than full time schedule and work slowly back to full time. You will need to be sure your employer will allow you to take time to eat your meals slowly at work to ensure proper nutrition. If you need 'return-to-work' or other insurance papers completed, please bring them to the office and we will be happy to assist you with their completion. Remember, NO lifting over 25lbs for 4 weeks... NO EXCEPTIONS!!

Activity

It is important to be up and out of the bed or chair and active when you return home. You may notice that you tire easily and need to take frequent rest periods.

You can resume sexual relations when desirable, keeping the restrictions on other physical activity in mind.

Pregnancy after Surgery

Women of childbearing age should be on a reliable method of birth control until their weight has stabilized for 12-18 months. We DO NOT recommend pregnancy until at least 12 months after surgery. If pregnancy does occur, a detailed consultation with your bariatric surgeon and obstetrician may be needed to assess your nutritional status. After delivery, weight loss can resume, but is often slower than during the first 12-18 months after surgery.

Alcohol Consumption

After bariatric surgery, you will feel the effects of alcohol much faster. Blood alcohol levels peak higher and take longer to return to normal due to altered metabolism after bariatric surgery.

- Avoid alcohol for the first 6 months after surgery.
- When drinking, remember that small amounts of alcohol can cause intoxication or can result in low blood glucose with serious consequences.
- When you get permission to start drinking alcohol again, avoid carbonated beverages and sugary drink mixers.
- Never drink and drive, even after consuming only minimal amounts of alcohol.
- Be aware of the calorie content of alcohol.
- If you find yourself drinking regularly to cope with emotions or stress, seek help by consulting with your primary care doctor.

What to Expect After Surgery

It is very important to follow the eating and drinking instructions starting right after the operation to allow the new stomach to heal completely and in the right position.

You will notice a difference in the amount and type of food you can eat. You will receive nutritional counseling to help show you the do's and don'ts. Since the amount of food you can eat will be much less, it becomes very important to eat the right types of food to be sure your body gets enough nutrients.

It is reasonable to expect to lose 60-100lbs in the first year depending on your procedure and how much excess weight you had before surgery. Most people will stabilize at their new lower weight 2 years after surgery.

Helpful Rules to Effective Weight Loss

It is important to understand that weight loss should be gradual, sustained, and accompanied by careful attention to proper nutrition. Understand that you are not alone, and we are here to help you overcome this disease and put you on the track of a healthy life.

Rule 1: Eat 3 small meals and 2 snacks per day

The fewer meals you eat, the less your body will want to burn fat in an attempt to store energy for future use. Avoid skipping meals, especially breakfast. Breakfast is the most important meal of the day and should be consumed within the first 2 hours after waking. Breakfast helps regulate stress hormones that control hunger. Skipping breakfast will lead to increased cravings, hunger and dips in energy throughout the day.

Rule 2: Stop eating as soon as you get a feeling of being satisfied

This is a tough one. Once your stomach is getting full, your body receives a signal that you have eaten enough. It takes time, though for you to become aware of this signal. If you rush through your meal, you may eat more than you need. This can lead to nausea and vomiting and stretching of the gastric pouch or sleeve. Take time to enjoy every bite of your meal. Learn to recognize the feeling of satisfaction, then stop eating at once. If you try to eat until you are full, you may be eating too much and stretch your new stomach. In the long run, this could lead to eating more than you should on a regular basis.

Rule 3: Do not drink while you are eating

Bariatric surgery works best if you do not drink your calories and eat solid food during your three meals. You should not drink anything for 30 minutes after a meal. This allows you to keep the feeling of fullness as long as possible. Eating and drinking at the same time may stretch your new stomach.

Rule 4: Eat only good quality, nutritious food

With bariatric surgery, you should be able to eat only small amounts so the food you eat should be as nutritious as possible. Follow the nutrition guidelines and instructions from our medical providers and dietitian. We prefer you eat predominantly protein and vegetables. A snack, if necessary, should be fruit, nuts, or low fat cheese sticks. We want you to limit the carbohydrates as much as possible (oatmeal, grits, rice, mashed potatoes, fries, macaroni & cheese, breads, ect.), and of course the sweets found in deserts and candy. **JUST SAY NO!!**

Rule 5: Drink enough fluids during the day

Drinking enough fluids is essential for staying hydrated and for flushing waste products out of your body. Individual needs will vary, but you should drink at least 6-8 glasses of

liquid a day. Remember: Drink only non-carbonated/zero calorie liquids. Water is preferred. Remember to keep your food and drinks separate during the day.

Rule 6: Avoid foods that increase hunger and cravings

Coffee, artificial sweeteners, and sweet snack foods affect stress hormones and insulin levels which can increase hunger. Choose water, green tea and snacks that contain protein and fiber (fruits and vegetables) instead.

Exercise



Exercise is very important. Once your body detects that you are losing weight, it will try and slow things down by lowering your metabolism. Your body likes you just the way you are and it will try its best to keep you at your current weight. We can't let your metabolism slow down at this point. If we do, the weight loss will stop. Exercise, especially resistance type exercise, will help speed up your metabolism and counteract your body's attempt to slow things down. The more muscle you have, the faster you will burn fat!

Most people find that as weight comes off after surgery, it becomes easier to exercise. We recommend that our patients exercise at least 30 minutes a day, at least 5 days a week.

- When you get home, you should start a walking program to your tolerance. If you begin to feel short of breath, tired or exceed your target heart rate during the walk, slow your pace or stop.
- Maintaining muscle mass by performing resistance exercises is very important to keep your metabolism from slowing down.
 - Resistance training is anything that gives resistance against your muscles.

- Resistance training can be done with elastic bands, hand weights or simply using your own body weight.
- Try to do at least 15 minutes of resistance training each day.

You will be started on an exercise program that includes high intensity resistance training.

Medications to AVOID After Bariatric Surgery

A.S.A. Enseals	BC Powder/Cold Powder	Dolobid
Advil	Bufferin-Regular& Extra Strength Buffix	Ecotrin
Alka Seltzer	Buffinol Cama Arthritis Strength	Emperin
Anacin	Cataflam	Excedrin
Arthritis strength tri- Buffered Bufferin	Clinoril	Feldene
Ascriptin	Cortisone	Fiorinal
Asperbuf	Daypro	Halfrin
Aspergum Asprin	Dipyridamole	Ibuprofen
Asprin	Dislcid	
Indocin	Nuprin Caplets/Tabs	
Lodine Magnaprin	Orudis P-A-C Analgesic	
Maprin/Maprin 1-B	Pamprin	
Measurin Mediprin	Pepto-Bismol	
Meclomen	Persantine	
Midol Caplet/200	Tolectin	
Motrin	Vanquish	

Nalfon

NO NONSTEROIDAL ANTI-INFLAMMATORY DRUGS (NSAIDs) AVOID TIME RELEASED DRUGS

Naprosyn

Norgesic

Medications that are Considered SAFE after Surgery

Benadryl

Tylenol

Dimetapp

Robitussin

Sudafed

Triaminics

Tylenol cold products

Tylenol Extra Strength

Gas-X

Phazyme

Imodium

Colace

Dulcolax-suppositories

Fleets enema

Milk of Magnesia

Peri-colace

Claritin



Advancing Your Diet after Bariatric Surgery

Stage 1- Week 1: Clear Liquid Diet

Clear Liquid Diet to begin post-op Day 1 if no nausea or vomiting occurs.

You must sip fluids all day. The goal should be 4-8 ounces per hour for a total of at least 64 ounces of clear liquids per day.

Start your vitamins after you get home.

Recommended Sugar-Free Clear Liquids:

- Clear broth or bouillon – Chicken, Beef, or Vegetable, can add protein powder
- *Crystal Light* or sugar-free *Kool-Aid*
- Decaf tea and coffee (*NutraSweet*, *Splenda*, *Stevia*, non-dairy creamer are ok)
- Fruit juice sweetened with *Splenda* or other artificial sweetener. Avoid citrus (orange, grapefruit, and pineapple) and tomato. Grape, apple, and cranberry are ok. These beverages should contain less than 5gm of sugar per serving.
- Herbal tea, or un-sweet tea – caffeine free
- Jello
- NO carbonated beverages
- Propel Water, low calorie Gatorade (G2), or Powerade Zero
- Sugar-free Carnation Instant Breakfast
- Sugar – free popsicles, Sugar-free Italian Ice
- Water

Take Supplements – Exercise Daily – Extra Protein – Drink Fluids



Stage 2 – Week 2: Full Liquid Diet

Start high protein full liquids (Pro-complex, Body Fortress, etc.) in addition to sugar-free clear liquids.

Recommended Foods:

- All food from previous stages
- If protein powder with clear liquid is tolerated, then mix protein powder of choice with non-fat milk or Almond Milk. If lactose intolerant, use non-fat Lactase-Enzyme treated milk
- Low Fat creamed soups – thinned (no chunks). Check useful websites for recipes
- Natural applesauce
- Non-fat yogurt (sugar-free) pudding less than 60 calories and 8 grams of sugar per serving
- Sugar-free pudding – make with skim milk and add protein power
- Unsweetened 100% fruit juice diluted with water without pulp (no orange juice, grapefruit or tomato juice). Limit to 4 ounces per day
- Protein shakes – drink up to half of the shake at a time

Stage 3 – Week 3: Pureed Diet to Soft Diet

Pureed Diet to Soft Diet

- Add one new food at a time
- Aim for 48-64 ounces of fluid per day to prevent dehydration. Avoid drinking 30 minutes before and after meals
- Chew completely and slowly
- Continue full liquids to pureed adding one new food at a time, as tolerated
- Eat 3 meals a day and 2 snacks
- Limit fats and avoid sugars
- Protein is the priority (70-80 gm per day)

Recommended Foods:

- All foods from previous stages
- Blended protein shakes with non-fat, sugar-free frozen yogurt, pureed fruit

- Canned peaches, apricots, mandarin oranges or pears
- Dried beans and peas, navy beans, kidney beans, low fat refried pinto beans, lima beans, lentils, split peas cooked without added fat until very tender (remember that these foods may cause abdominal discomfort and/or gas)
- Eggs, scrambled or egg whites
- Hummus
- Lean meats (fish, tuna fish, chicken, turkey) make sure the meats are moist and chewed well before swallowing
- Low fat cheese containing less than 6 gm of fat per ounce (most 2% cheese), low fat or non-fat cottage cheese (1/4 cup), ricotta cheese
- Tuna fish made with low fat mayo
- Canned salmon without skin, ground turkey, ground chicken
- Soft cooked vegetables such as green beans, zucchini, squash (should be mushy before swallowing)

Stage 4 – Week 4: Add new foods one at a time

SOFT TO REGULAR DIET

- Aim for 64 ounces of fluids to prevent dehydration. Avoid drinking 30 minutes before and after meals
- Continue drinking fluids especially water between meals and throughout the day
- 3 meals a day, plus 2 snacks if needed. No more than 2 oz of meat and 1 oz of other food for the meal. 1-2 oz for snacks

RECOMMENDED FOODS:

- All foods from the previous stages
- Avoid fibrous vegetables (raw cabbage, celery)
- Avoid fruit with membranes (oranges, grapefruit, pineapple, grapes)
- Avoid tough meats (steak, roast, pork chops)
- Cheese containing less than 5 gm of fat per ounce (most 2% cheese), Laughing Cow cheese, cheese sticks

- Dried beans and peas – navy beans, kidney beans, low fat refried pinto beans, lima beans, lentils, split peas cooked without added fat until very tender (remember that these foods may cause abdominal discomfort and/or gas)
- Lean meats (fish, tuna, chicken, turkey) make sure the meats are moist and chewed well before swallowing
- Low fat or non-fat cottage cheese (1/4 cup)
- Soft cooked vegetables

Remember

- Add one new food at a time
- Avoid starchy foods like rice, pasta, breads, potatoes
- Chew completely and slowly
- Continue supplemental protein (70-80 gm of protein is the daily goal)

You are recommended to avoid the following foods for the long term:

- *Foods high in carbohydrates:* (Pasta, rice, breads, crackers, white potatoes, macaroni & cheese, oatmeal, grits, sweets)
- Foods high in saturated fats and avoid trans fats
- Fried foods
- Sugar beverages such as juice and soda

Why is Protein so Important?

- Protein aids in proper wound healing after bariatric surgery.
- Protein helps keep hair, skin, nails, and bones healthy.
- Protein helps your body burn fat instead of muscle for a healthier weight loss.
- Protein helps build muscle which leads to quicker weight loss. Remember, the more muscle you have, the faster your metabolism, and the more fat calories you will burn. Even while at rest this is happening.
- Protein triggers the fat burning hormones in your body. Protein stimulates the release of glucagon which is a hormone that allows you to utilize your stored fat.
- Protein curbs your hunger between meals to help you avoid 'snacking temptation'.
- Protein allows you to feel full for a longer period of time.

Protein and your meals:

- Eat all your protein foods first, and then move on to your vegetables and fruits.
- Half of your meal size should consist of protein.
- Try to have protein as part of every meal.

Protein rich foods:

- Eggs, fish, chicken, turkey, tofu, shrimp. Try to choose white meat poultry. Nuts, beans, non-fat/low-fat cottage cheese, cheese, plain or sweetened low carb, non-fat/low-fat yogurt, lactaid milk.

How Do I Get the Recommended Amount of Protein I Need?

It is recommended that you get an average of 60-80 gm of protein daily. This should be broken up into 3 meals and 2 snacks.

You can determine the protein amount with packaged/labeled foods, but food without labels can be tricky.

See below for a helpful explanation for protein content:

- Ounce of protein = 7gm of protein
- 1 egg = 6-7 gm of protein
- 3 oz serving of protein = 21gm of protein
 - Size of the palm of your hand or a deck of cards
- Greek yogurt
 - Dannon Light and Fit 6 oz = 12gm of protein
 - Yoplait: 1 container = 11gm of protein
 - Chobani: 6 oz = 14gm of protein



Why should Carbohydrates be Avoided?

Carbohydrates activate the fat storing hormones in your body

- Once you consume foods that are high in carbohydrates and sugar, your blood sugar becomes elevated. Your body naturally makes insulin to regulate your blood sugar. However, insulin is a fat storing hormone and has a negative effect on weight loss. Once insulin levels are elevated, your body will store more calories that you eat as fat for the next 24 hours.

Eating too many carbohydrates will make your portions larger.

- Carbohydrates pass through your gastric pouch, or sleeved stomach and into your intestines much quicker than protein. This makes room for more food, ultimately making your portions larger. Because carbs don't stay in your stomach for a long time, you will start to feel hungry sooner than you should.
- Carbohydrates also trigger inflammation in your entire body, including your new stomach. There is a possibility this could lead to stretching of your pouch or sleeve.

Fiber

- Not all carbohydrates are bad. Complex carbs such as beans, fruits and vegetables are encouraged. These foods contain more fiber than sugar. Fiber counteracts the body's insulin response to sugar and can activate fat burning hormones. Fiber is also vital in controlling hunger and decreasing cravings.

Carbohydrates to Avoid

Bread, rice, pasta, oatmeal, grits, cream of wheat, crackers, chips, macaroni & cheese, juices, sweet tea, soda, potatoes, bagels, pancakes, cereal, tortilla, cookies, cakes, candy.....

- ❖ Please keep in mind this is a list of some of the carbohydrates to be mindful of limiting in your diet. You will not be required to be on a zero-carb diet for the rest of your life, however, there are carbs in foods that do not look like classic carbohydrates. By consciously staying away from the obvious carbs, you can leave room for the hidden carbohydrates that will be in your fruits, vegetables, drinks and condiments.

Food Labels

Read all your food labels to determine the nutrient content and be on the lookout for hidden sugars. **Serving size is important!**

Be careful when reading labels at the market. Quoted protein amounts are based on certain serving sizes and you may not be able to have a whole serving. * A product that appears high in protein, may not be all that high. *

Check the other nutrients as well. A food high in protein, but also high in carbohydrates or fats would not be a good choice as the proportion of protein is not as good as it looks.

Choose foods that contain:

- Less than 10 grams of total carbohydrates per serving
- Less than 5 grams of sugar per serving
- More fiber than sugar

Your carbohydrate intake should contain less than 40-50 grams per day.

Your sugar intake should be less than 20 grams per day.

Nutrition Facts	
Serving Size 1 cup (228g) Servings per Container 2	
Amount Per Serving	
Calories 280	Calories from Fat 120
% Daily Value*	
Total Fat 13g	20%
Saturated Fat 5g	25%
Trans Fat 2g	
Cholesterol 2mg	10%
Sodium 660mg	28%
Total Carbohydrate 31g	10%
Dietary Fiber 3g	0%
Sugars 5g	
Protein 5g	
Vitamin A 4%	Vitamin C 2%
Calcium 15%	Iron 4%
<small>Percent Daily Values are based on a 2,000-calorie diet. Your daily values may be higher or lower depending on your calorie needs.</small>	
Calories: 2,000 2,500	
Total Fat	Less than 65g 80g
Sat Fat	Less than 20g 25g
Cholesterol	Less than 300mg 300mg
Sodium	Less than 2,400mg 2,400mg
Total Carbohydrate	300g 375g
Fiber	25g 30g
Calories per gram:	
Fat 9	Carbohydrate 4 Protein 4

Guidelines for Food Selection After Bariatric Surgery

The following list is to be used as a guide for making food selections.

Always work toward eating a low-carb, high protein diet.

	FOODS RECOMMENDED	MAY CAUSE DISTRESS
Protein	Eggs, fish, chicken, turkey, tofu, shrimp. Try to choose white meat poultry. If tolerated, non-fat/low-fat cottage cheese, cheese, plain or sweetened low carb non-fat/low-fat yogurt, Lactaid milk	Fried or high fat meats, fried eggs, highly seasoned or spicy meats, skin of meats and tough meats. Avoid beef, lamb, pork during the first 3 months. After 3 months, add to diet as tolerated.
Breads, Potatoes and Starch Substitutes	Green peas Beans and lentils, however they may cause discomfort and gas.	Breads made with dried fruits, nuts and seeds, pastries, donuts, muffins, past and rice if not fully cooked, sugar coated cereals, coarse bran cereals.
Vegetables	Soft cooked fresh, frozen or canned vegetables (i.e., carrots, beets, mushrooms, spinach, squash, green beans), vegetable juice, and raw vegetables as tolerated after several months.	Any vegetable with tough skin or seeds (i.e., tomato, corn, celery). Cabbage, cauliflower, broccoli, and brussel sprouts may cause gas.
Fruits	Strawberries, raspberries, blueberries, blackberries, apple slices, pear slices	High carb fruit juices/drinks, fruit skins, fruits canned in heavy syrup. Dried fruits, pineapple, and melons. For some raw apples may cause gas.
Soups	Protein soups made with allowed foods, spicy soups as tolerated. While restricted on liquids with meals, strain and drink liquid from soup only.	Soups prepared with heavy cream or made with high fat ingredients.
Fats	Small amounts of butter or oil may be used, low-fat salad dressings, non-fat/low-fat mayonnaise, sour cream and cream cheese as tolerated. Peanut butter in small amounts.	Regular mayonnaise, salad dressing, margarine butter and sour cream in large amounts.
Sweets	Not recommended. See 'dumping syndrome' explanation	All sweets, candies and desserts especially if made with chocolate or dried fruits or if eaten on an empty stomach.
Beverages	Decaffeinated coffee, un-sweet tea, water, non-fat/low-fat Lactaid milk, Crystal Light.	Alcohol, sweetened fruit drinks or carbonated regular soda.
Miscellaneous	Iodized salt, pepper, herbs and flavored seasonings as tolerated. Light mocha mix or other nondairy low-fat substitutes.	Jalapenos, nuts, seeds, tough skins for at least 3 months post-op.

Meal Replacement Protein Shakes

Must Contain:

Whey Protein – main protein source – within first 2 ingredients

High Protein level – 20 gm

Low Calorie – 100 calories (80-120)

Low Sugar – less than 8gm

When mixing powders: Mix with either water, milk (skim, 1%, almond, soy), 100% juice, diet (sugar-free juice). You may also add yogurt and fresh/frozen fruit to them to make smoothies. ****Be sure to add the calories and carbs of any added ingredients to the overall total count of the shake****

Examples of protein options:

Unjury	Body By Vi	GNC – Lean Protein
Pure Unflavored Protein Isolate	GNC Pro Performance 100% Whey Protein	EAS Whey Protein Powder (Lean 15)
Pure Protein	Whey Bolic Extreme 60	Glucerna
Isopure Protein Zero	CytoSport Whey Protein	Muscle Milk
EAS AdvantEdge Carb Control	Bluebonnett Whey Protein	Premiere Protein
Atkins	Syntrax Innovations Nectar	Body Fortress
Click Protein	Core Protein	

When to Call Your Physician

- Abdominal PAIN not relieved by pain medication
- Shortness of breath or increase in breathing
- Rapid or increase in heart rate
- BLEEDING: from incisions, in vomit or stool (could be black or maroon in color)
- NAUSEA or VOMITING that is not relieved by medications or that prevent fluid intake for the day
- CALF or LEG PAIN and or/or swelling

Follow-Up:

Southern Regional Medical Center
Center for Healthy Weight Loss / Bariatric Center
11 Upper Riverdale Rd., SW
Surgery Suites – Ground floor of Women’s Center
Riverdale, GA 30274
Office: 770-897-SLIM (7546)

Please contact the office if you have any questions.