



Houston Bariatric
SURGERY

Patient Education Manual

Jason Balette, MD, FACS
Drew D. Howard, MD, FACS

9200 Pinecroft, Suite 250
The Woodlands, Texas 77380
281-419-8400
Houstonbariatricsurgery.com

Introduction

Thank you for your interest in our Weight Loss Center. Let us begin by stating that morbid obesity is a serious disease. Morbid obesity is an epidemic affecting over 15 million Americans. Obesity impacts both the quantity and quality of life. Being obese can cause many life threatening problems, and too commonly it interferes with social and personal activities. Recent medical research has showed that obesity is a genetic abnormality that is expressed in variable degrees, even between individuals within the same family. When a person's weight increases in excess of 100 pounds above one's ideal body weight or a Body Mass Index (BMI) greater than 40, medical implications become very important. The obese individual is at an increased risk for developing (or has already developed) obesity-related diseases including diabetes, hypertension, sleep apnea, arthritis, depression, gastro-esophageal reflux (GERD), dyslipidemia (high cholesterol and/or triglycerides), edema, urinary incontinence, certain cancers, and coronary artery disease. Even if an obese person does not have any known problems yet, they are at risk for developing all the conditions above and most importantly, are at a 20-fold increased risk of early death. For these types of patients, structured dietary programs have universally been unsuccessful. For many individuals, dieting, hypnosis, self-help groups, and behavior modifications are met with minimal or only temporary success. The data suggests that the only long-term solution for many morbidly obese patients is surgical intervention.

Patients often report that whatever weight loss is accomplished is ultimately followed by weight regain and all efforts are associated with feelings of guilt and depression. Life for people with morbid obesity can be difficult. Weight spirals up and plummets down, resulting in feelings of failure, frustration, and hopelessness. It is this population of patients that weight loss surgery, also known as bariatric surgery, is intended to help.

Bariatric surgery is the field of surgery devoted to weight loss. Bariatric surgery offers a surgical option for the treatment of morbid obesity when other measures have been unsuccessful. The currently applied surgical procedures of Sleeve Gastrectomy and Roux-en-Y gastric bypass have consistently resulted in excellent weight loss in properly selected patients. As you might expect, such significant weight reduction has a tremendous impact on all aspects of life, and as you lose your excess weight, the way you feel about yourself, your family, and friends will change.

This informational guide is an introduction to the surgical treatment for obesity offered by Dr. Howard and Dr. Balette. Questions that are not answered in this patient guide should be directed to members of the Weight Loss Center team. These team members include surgeons, psychiatrists/psychologists, dietitians, physical therapists, nurses, physician assistants, and the program coordinator.

Weight loss surgery cannot accomplish or maintain the necessary weight loss without your cooperation. To accomplish and maintain weight loss after surgery, you must eat less food, change the types of food you eat, and increase your exercise.

Why Surgery?

1991 NIH Consensus Conference on Surgery for Obesity

- Surgical intervention is the only method proven to have a significant long-term impact on the disease... when medical interventions have failed.

(Obesity Research 1998; 6 (suppl 2):51S-209S)

Risk of Surgery versus No Surgery

- McGill University compared five-year survival of their 5,746 morbidly obese patients managed medically with 1,035 patients who underwent surgery, matched by sex, age, and duration of being obese
- Five-year mortality **6.17%** in the no surgery group
- Five-year mortality **0.68%** in the surgical group

(Christou NV, et al.: Ann. Surg., 240: 416-422, 2004)

Resolution of Medical problems

National Data – 136 scientific reports totaling surgical results of 22,094 patients

- Diabetes Mellitus: Complete resolution 76.8% Resolved or improved 86%
- Hyperlipidemia: Improved 70%
- Hypertension: Resolved 61.7% Resolved or improved 78.5%
- Sleep Apnea: Resolved 95%

(Buchwald H, et al: Bariatric Surgery: A systematic review and meta-analysis. JAMA 292:1724-1737,

2004)

Who should have surgery?

If you are considering surgery, you must meet certain criteria to be an appropriate candidate. Most surgeons in the United States use the National Institutes of Health (NIH) guidelines:

Weight Loss Surgery Criteria:

- **Previous attempts at weight loss have not been successful**
- **No medical or psychological conditions exist that would make surgery too risky**
- **Weight alone:** BMI (body mass index) 40 or above.

OR

- **Weight with associated conditions:**
 - BMI 35 or above *with* the presence of diabetes, high blood pressure, sleep apnea, hyperlipidemia or other serious complications of obesity
- **Motivated and willing to undergo surgery and a complete change in lifestyle.**

Calculating Body Mass Index (BMI):

BMI = Weight (pounds) divided by (height in inches x height in inches), multiplied by 703.

Our website has an online BMI calculator: www.houstonbariatricsurgery.com

If you do meet criteria, the next question is, are you comfortable with the trade-offs? In choosing to have surgery, you are trading some upfront costs and risks for the ongoing costs and risks of obesity. Making the decision to have weight loss surgery is complicated and best made by a person who is well informed. The decision should include significant others, family members, or whomever is closest to you. A thorough discussion with the surgeon is of course necessary, and we encourage you to discuss the surgery with your health care providers.

The surgeries: Sleeve Gastrectomy, Gastric Bypass, Gastric Balloon

In the United States, sleeve gastrectomy and gastric bypass are the two most common. Gastric bypass is currently the most popular, and has been in use since 1967. Gastric bypass is also called Roux-en-Y gastric bypass. Sleeve Gastrectomy is the newest accepted surgical procedure for weight loss surgery with excellent results. Intra-gastric balloon is a newly approved surgery for weight loss.

Sleeve gastrectomy, gastric bypass and intra-gastric balloon are surgical procedures designed to help a person lose weight and improve the obesity-related health problems. Each surgery accomplishes this in a different way, and will be discussed in more detail in the sections below. Therefore, it is very important for you to carefully consider the surgical options, and for us to conduct a complete evaluation before surgery to decide which surgery is right for you.

Laparoscopic Surgery

Laparoscopic surgery, also called minimally invasive surgery, is an advanced surgical technique. Surgery is performed through small incisions using cameras and long, thin surgical tools. Laparoscopic techniques result in less post-operative pain, fewer complications, shorter hospital stays, and much quicker recovery times. The laparoscopic approach to weight loss surgery has been proven in studies to reduce the risk of post-operative wound complications, including infections and incisional hernias.

Multiple small incisions (each usually 10mm or less) are used for laparoscopic surgery. The abdominal cavity is filled with gas (carbon dioxide) to provide the surgeon with visibility. A video camera is introduced through one of the small incisions, and the surgery is completed using long, skinny instruments to perform the operation while looking at video monitors. At the end of the operation, the 5 tiny incisions are closed with dissolvable stitches. Laparoscopy is the safest way to perform weight loss surgery.

Sleeve Gastrectomy

The sleeve gastrectomy is presently the most commonly performed weight loss surgery. This procedure leads to weight loss by reducing the size of the stomach, making you feel full after eating only small portions. Approximately 75-85% of the stomach is removed, leaving behind a smaller, tube-shaped stomach (or “sleeve”). This limits the amount of food that is required to feel full. In addition, the portion of the stomach that makes the hormone Ghrelin, which is responsible for making us feel hungry, is removed.

This is the newest FDA approved weight loss surgery procedure. Advantages of the procedure include no implantation of an artificial device, and no re-routing of the intestinal tract. The primary disadvantage of this procedure is that the sleeve tube could dilate (or stretch) with time and increased reflux and/or nausea after surgery.

Expected weight loss for this surgery is 55-70% of your excess weight.

Gastric Bypass

Another operative procedure performed for weight loss is the Roux-en-Y Gastric Bypass. It results in weight loss by significantly reducing the size of your stomach, so you cannot eat as much, and by bypassing your small intestines so you absorb less fat from the foods you eat. This operation historically has been accepted by obesity surgeons throughout the country and major medical societies as being the most effective in weight reduction and maintenance of weight loss. We perform this surgery using laparoscopic techniques, avoiding a large incision in your abdomen, however, an abdominal incision is sometimes necessary based on your weight, body shape, and previous surgical history.

The Roux-en-Y Gastric Bypass leads to weight loss mostly by reducing the size of the stomach, reducing the amount of food you can eat before you feel full, as well as by bypassing some of the small intestine, reducing the amount of food the body will absorb. This operation is considered the gold standard for weight loss surgery, as it has been in existence the longest, and has been extensively used since 1967. A small stomach pouch (about the size of a medium egg) is created with a stapler device. The small intestines are then divided and one end brought up and connected to the small stomach pouch. The intestines are reconnected further downstream.

Weight loss is greatest during the early months following surgery. During this time, it is very important that you take in enough protein so that you can recover from your surgery. The rate of weight loss slows during each succeeding month, and usually stabilizes between 12 and 18 months after surgery. The amount of weight loss cannot be precisely predicted as weight loss depends on many factors, including your age, preoperative weight, and the amount of physical activity that you do. A word of caution: your surgery limits the amount of solid food that you can tolerate, but has less of an effect on the consumption of liquids. Drinking high calorie liquids will slow your weight loss.

If food consumption or calorie intake increases after weight stabilization, some weight may be regained. Patients who desire to lose additional pounds must restrict caloric intake and/or increase their amount of daily exercise. Discuss the method and plan for additional weight loss with the dietitian, physical therapist, and other members of the bariatric surgery team. This is an extremely important point, the procedure will give you the “kick-start” to lose weight, but you must help by exercising and using caution/judgment with your food intake.

Expected weight loss for this surgery is 65-75% of your excess weight.

Gastric Balloon

The intra-gastric balloon procedure is performed as an outpatient procedure. A dual balloon is inserted in your stomach via endoscopy. No incisions are made during this procedure. The device remains in your stomach for a 6-month period. During this time, you will feel full quicker, resulting in decreased intake, which results in weight loss. Expected weight loss during this time is 20-40 pounds. You will be counseled pre- and post-insertion regarding diet and lifestyle changes which will assist in weight loss. These lifestyle changes should continue after the balloon is removed, which will result in continued weight loss even after the device has been removed.

Risks and Complications

Any surgery has risks. Weight loss surgery is no different. There are complications that can happen with either gastric bypass or sleeve gastrectomy, and there are complications unique to each operation. It is impossible to predict every possible complication of surgery, but listed below are some of the more common or more severe risks. Fortunately, the severe complications are far less common than the mild ones.

Complications that can occur with bariatric surgery:

Leaks: from a staple line or anastomosis

Death

Bleeding, infection, stroke, heart attack

Anesthesia complications, allergic reaction, arrhythmia

Blood clots: deep venous thrombosis (DVT), pulmonary embolism (PE)

Excessive weight loss

Nausea and/or vomiting

Nutrient deficiencies

Failure of weight loss

Wound problems: hernia, infection, pain

Flatulence, diarrhea, constipation

Temporary hair loss

Loose skin after weight loss

Need for revisional or corrective surgery in the future

Ulcers

Hypoglycemia

Stricture or stenosis of stomach or outlet of the pouch

Bowel obstruction

Nutrient deficiencies: specifically iron, calcium or B12

Leakage/rupture of intra-gastric balloon necessitating removal

Individuals at increased risk:

Certain patient factors do make surgery riskier for others. These include:

- Age over fifty-five
- Body mass index (BMI) greater than fifty
- Previous gastric or weight loss surgery
- Patients with central body obesity.

Recovering from surgery

Surgery is performed in the hospital, under general anesthesia. When you wake up, you will be observed in the recovery room, and then transferred to a regular hospital room. Patients very rarely are observed in the intensive care unit (ICU) after surgery. The most common problems after surgery are pain and nausea. To help prevent this, you will be given pain and nausea medications even before you awake from anesthesia. Everyone is different when it comes to how much pain they experience after surgery. A variety of pain medications are made available, given through an IV by your nurse. While in the hospital, you will gradually advance to a bariatric clear liquid diet. Your vital signs, urine output and sometimes blood work or other tests will be monitored. When your pain is controlled and you are tolerating clear liquids, and the surgeon is satisfied that there are no signs of complications, you will be discharged.

Time spent in the hospital

This depends on the operation, and on the individual. Some people take longer to recover than others. After laparoscopic gastric bypass or sleeve gastrectomy, most people spend one or two nights in the hospital.

Time spent off of work

Most people are back to work in approximately one to three weeks, but it depends on several things. Time away can be as little as a week, or up to six weeks. It depends on the type of operation, how quickly a person recovers, whether or not they have complications, and what type of work they do. For any job, two to three weeks is justifiable. For jobs requiring lifting over 40 pounds or with other physical demands such as extensive bending, lifting or climbing, four weeks may be needed. The shortest time off is usually for laparoscopic surgery. Be prepared to miss more work if complications occur.

Follow-up care

You will return to the clinic in **2 weeks, three months, six months, twelve months, and every year** after surgery. You will see members of your health care team to ensure that your dietary intake is adequate for your health needs. The team will also counsel you regarding exercise, as well as your emotional and physical adjustments to your weight loss.

Medications You May Not Take

There are several non-prescription and prescription medications that you should not take unless you receive permission and instruction from us on how to take them. Among the medications in this category are all arthritis medications, oral steroids (prednisone), aspirin, and aspirin-containing products, including many cold medications. Alka Seltzer®, BC powder®, Goody powder®, Bufferin®, Ascriptin®, and many other medications that contain aspirin or salicylate compounds are prohibited. These can greatly irritate your stomach pouch and cause a number of serious problems. You should also avoid taking Nuprin®, Advil®, Aleve®, ibuprofen, or other over-the-counter arthritis pain or menstrual cramp medications. If you have any questions about whether a prescription medication or a non-prescription medication contains aspirin or other stomach-irritating compounds, check with your doctor or pharmacist. Do not take any of these medications unless you have first spoken with your surgeon or someone from the bariatric surgery team for permission and instructions on how an exception might be made in your case.

Living with the surgery

General instructions

The instructions and rules are the same for sleeve gastrectomy and gastric bypass. In general, you will be going through an initial healing period, lasting about four to six weeks, where you are being very gentle with your new stomach. People usually are not hungry at all during this time, and will be consuming mostly liquid meals at first. It is important to follow all the instructions and guidelines, and to call the office with questions or problems.

Diet

Bariatric surgery is an excellent way to limit the amount of food you eat and assist in weight reduction, but significant adaptation of your diet and lifestyle are required to achieve maximum success. After your bariatric surgery, you will be losing weight very rapidly. Hence, proper nutrition is essential to maintain lean body mass (muscle), hydration, skin elasticity, and to minimize hair loss.

The primary nutrition goals after surgery are as follows:

- Learn proper eating habits that will promote continued weight loss
- Consume adequate amounts of protein to minimize loss of lean body mass, and facilitate wound healing
- Take adequate amounts of fluid to maintain hydration
- Take in nutrients for optimal health via healthy food choices
- Replenish vitamins and minerals with supplements
- The post-bariatric surgery meal plan requires a significant change in meal planning for most people. We recommend that you begin adapting your current meal plan to prepare for this change
- Avoid fried or high-fat foods at all costs

In order to lose weight effectively and permanently, you must be an active participant in your weight loss program. The surgery will help you to lose weight, but it is not “magic”. A well-balanced nutrition plan is necessary to help you reach and maintain your goal weight. Making changes in your eating habits will also leads to a lifetime of good health and weight control.

Exercise

A regular exercise program is essential to any weight loss program, with or without surgery. Exercise burns calories and builds up muscle. Muscle burns more calories even while you are not exercising, so you get rewarded twice for your efforts. Regular exercise also helps lower blood pressure and cholesterol and has many other health benefits.

You can begin walking immediately after surgery. You may begin low-impact exercises such as swimming, jogging, aerobics, or cycling as soon as these activities do not cause any discomfort to your incisions. With laparoscopic surgery, people usually reach this point within a few weeks. Exercise with straining, such as weight lifting and abdominal crunches, should be avoided for six weeks.

Lifelong commitment

Obesity is a lifelong problem, and managing it takes a lifetime of effort. This is true whether you have weight loss surgery or not. Weight loss surgery makes changes in the way your body reacts to food, but you have to work with these changes to achieve good weight loss. Weight loss surgery is much more effective than any other approach to weight loss. In theory, anyone can lose weight without surgery. In reality, the chance of a severely overweight person achieving successful weight loss without surgery is less than three percent. With surgery, the chances of successful weight loss are about sixty to eighty-five percent. ***Remember that weight loss alone is not the goal; the real goal of weight loss surgery is to improve health and well-being.***

The pre-operative process

Please obtain the following items to bring with you at your first clinic appointment:

- Documentation of your weight for the last 12 months from your primary care physician.
- Documentation of non-surgical weight loss attempts.
- A supporting letter from your primary care physician recommending surgery.

Psychological Interview

As part of the evaluation for weight loss surgery, you will need to be evaluated by a psychologist/psychiatrist. They often times will discuss behavioral and life-style issues that can have an impact on your adjustment to life before and after the surgery. At the conclusion of their assessment, you will be provided feedback and given specific suggestions that may assist you both before and after bariatric surgery.

Nutritional Evaluation

You will be required to meet with our registered dietitian to assess your current eating and exercise habits. She will discuss any recommended dietary changes to prepare you for surgery pre-operatively, while you are in the hospital, and once you are discharged.

Laboratory Studies

As part of the medical evaluation, you will need to complete several studies. The necessary studies may include:

- A Barium Swallow to evaluate your esophagus/swallowing and possible hiatal hernia
- EKG to diagnose the presence of any heart disease
- Blood work - to be drawn while fasting, may include: chemistry panel, HbA1C, CBC, thyroid function, liver function, lipid panel

In addition, if you have had any of the following studies or procedures, please bring copies or the original reports to your initial appointment:

- Cardiac Studies – stress test, echocardiogram, cardiac catheterization
- Sleep Study
- Previous operations: stomach/intestinal surgery, hernia repair (hiatal or abdominal wall), cancer surgery, bariatric surgeries.

After we review the above studies or procedure notes, we will determine if any special consultations are necessary, such as a cardiac, gastroenterology, pulmonary consultation or sleep apnea test. If so, arrangements will be made for them to be conducted.

What's Next

After all the above tests and examinations are satisfactorily performed, your chart will be given a final review. If approved, our office will submit the accumulated medical information to your insurance company for their review and final authorization for surgery.

After surgery has been approved, you will meet with the doctor again in clinic for a pre-operative evaluation and to discuss the procedure once again, having a chance to go over any further questions. There may be intermittent 'weigh-ins' during the process to make sure that you are following the proper diet. It is expected that you lose weight and gain NO WEIGHT during this evaluation timeframe. Your surgeon may want you to start a special diet prior to surgery as well to reduce the risk of complications.

What to expect after surgery

Day of Surgery

All patients are expected to get out of bed the evening after surgery. Patients will NOT be allowed to have anything to eat or drink (not even ice chips), but we will provide you with mouth swabs so that you may wet your mouth. You are expected to get up and use the restroom. IV pain and nausea medication will be given to you as needed.

Post-Op Day 1

In the morning, we expect that you will feel fairly comfortable. You may still be somewhat sleepy. This is normal after anesthesia. You may still be feeling nauseated. You may be feeling thirsty. Until you are cleared by your surgeon to begin oral fluids, you can use lip balm or mouth swabs to ease the discomfort of a dry mouth.

You will go to X-ray for a gastrografin swallow study to evaluate your new stomach pouch and check for any leaks. You will stand for this X-ray. The Radiologist and your surgeon will evaluate your X-ray. If everything is ok, you will be allowed to start a Bariatric Clear Liquid Diet. You may not take in more than 30cc (a medicine cup full) of liquid every 15 minutes. Take only as much as your body can tolerate. If you begin to feel full or nauseated, STOP. Remember. . . YOUR STOMACH IS MUCH SMALLER NOW!

Once you are tolerating liquids, your IV pain medication will be stopped and you will start on oral pain medication. Your IV may be continued throughout the day to support your need for fluid intake. The nurses may have you urinate in a special "hat" in the toilet or in a urinal so they can monitor your urine output.

Your job for the day is to go for several walks out in the hall and to work hard on deep breathing and coughing. It will be uncomfortable to cough. It will be helpful to press a pillow against your abdomen. This provides counter-pressure and will help with pain when you cough. You are expected to sit up in the chair during meal times. You need to continue using your incentive spirometer at least every 2 hours.

For Gastric Sleeve patients, if your pain is under control with oral pain medicine, you are urinating, and you are tolerating your clear liquid diet without vomiting, you will be discharged home.

Post-Op Day 2

You should be more awake today if you were still sleepy yesterday. You should be tolerating your clear liquid diet without nausea/vomiting, and your pain should be under control with the use of oral pain medication. You are expected to be walking in the hall every couple of hours and be out of bed for all meals. If your vital signs are normal, your pain is controlled with the use of oral pain medication, you are urinating well, and you are tolerating your clear liquid diet without nausea/vomiting you will be discharged home.

After the Hospital

It is important for you and your family to realize that your strength and stamina will be decreased as you recover from major surgery. You may experience episodes of nausea and exhaustion. Pace yourself as you increase your activity. You need to get at least 7-8 hours of sleep a night. Most people do not experience any difficulty, but sometimes unexpected new symptoms can develop. *If you develop any unresolved nausea, vomiting, fever or severe pain that is not relieved with medication, please call the surgeon's office.* Sometimes a simple phone call can solve the problem.

Your Incisions

Your incisions are closed. You will be allowed to shower with the incisions uncovered. Do not let the water hit the incisions directly, and do not rub or scrub the incisions. Pat your abdomen dry after you shower. You do not need to cover the incisions after you shower. You may have some drainage from your incisions -- this is normal, and you may place a small dressing there if needed to protect your clothes. *If you have a lot of drainage or drainage that looks like pus or is foul smelling call your surgeon.*

Sometimes with increasing activity, people experience a sore spot around their incisions. This is usually due to muscle strain from the sutures pulling and will improve with time and exercise. During the first few weeks it is important to avoid heavy lifting. You should always stop immediately when any activity causes you to feel pain.

Medications

Before you go home from the hospital, your surgeon will evaluate your list of home medications and adjust them as necessary. You can expect a change with your diabetic medications especially. You will need to crush all pills or take a liquid form. You will continue on oral pain medication as needed. Any pill larger than a tic-tac must be crushed or cut in half. Your nurse can review your meds to let you know which ones can be crushed. Invest in a pill cutter for use at home.

What to Eat

You will be given specific instructions as to when to advance your diet. There is a detailed section of nutrition guidelines in this manual to help you.

First Post-Op Office Appointment

All patients have their first post-operative appointment within 2 weeks after surgery. At this time, your surgeon will weigh you, evaluate your incisions, ask how you are tolerating your pain, evaluate your diet, and answer any questions you may have.

The Rest of Your Life

Having your surgery is just the beginning of the process toward a “new you”! As you heal, it is important to establish new behaviors associated with food and exercise. Recognize that you have made a decision to change your life forever. It is important to realize that the surgery is not a “quick fix” and that the surgery alone will not cause you lose weight and keep it off. Use your pouch as the tool it is intended to be to control your weight and become the slender, and more important, healthier person you wish to be!

Social and Emotional Changes

Support Groups

Support groups are a great way to share common experiences, meet new friends and problem solve together. The support group will be a wonderful source of encouragement and information as you “evolve” into the new, smaller, and healthier you. It is very helpful, especially during difficult times, to know you are not alone. Post-operative depression is not uncommon. Many patients feel frustrated and somewhat weepy after surgery. This is a common occurrence and a normal part of the physical and emotional healing process. You may feel an emotional letdown as your energy reserves are drained. This will pass. Within a few weeks to months your energy and positive attitude will return. If needed, seek psychological support and counseling and plan to attend Support Group Meetings. Visiting with other patients will help you feel better.

Support groups are especially helpful for those who feel they have not been very successful after surgery. Sometimes, people need someone else to encourage them to continue and hold them accountable. Each hospital has a support group and there are also online support groups that many people have found very helpful.

Plan Ahead for Challenging Situations

Overeating at parties and social functions is easy to do. Snacking is considered a bad habit after this surgery, so make “party eating” one of your meals for the day. Place food directly on your napkin or small plate, and take only the food you are planning to eat, your portions are much smaller now. Look for the protein items first. Slow down your eating so you will really enjoy your food and won’t feel deprived as you finish your small portion. A party is not a good place to try a new food for the first time after surgery. You don’t want to end up sick or sleepy and have to go home ahead of schedule. Take time at get-togethers to socialize more and enjoy the people present. You should eventually feel a sense of freedom from the drive to eat.

Talk, Talk, Talk About It

Using assertive communication can minimize conflicts and provide healthier, happier relationships. Whenever you have a drastic lifestyle change, your relationships will definitely change too. Helping them change for the better may require some vigilance on your part. Be open when something bothers you by communicating it to those around you. It will also help if you share your experience with your significant other and develop your goals and plan of attack regarding your compliance issues (exercise, follow-up appointments, vitamin purchases, etc.) with them. Support groups help tremendously with these situations. Spouses are welcome and may learn that others might be having a hard time as well.

The commitment to have surgery is frequently a very private and personal decision. Some people do not wish to share this choice with others. Soon most people will notice your weight loss. Preparing an answer in advance will help you out of an uncomfortable situation.

Suggested remarks are:

“I’m exercising regularly, eating less and drinking lots of water.”

“I’ve decided to take better care of myself and change some old habits.”

Body Image

Keep in mind that as your body undergoes changes in weight and size, it is likely you may not see your body as others may view it. It takes time for your mind to catch up with what your body is doing. As you lose weight, you may actually be surprised when you see your reflection in a store window or mirror. You may not feel like that person is you! It is normal to feel like you are still the same size as you were before, but there are some definite ways to help you work through this:

- Take a picture of yourself every few weeks during your weight loss and compare the changes.
- Try on clothes in a smaller size. You’ll be surprised how quickly you will be changing sizes.
- Have someone point out a person in a public place who is about your current size so you have a new frame of reference.
- Take measurements of yourself every few weeks and record the results.
- Save an outfit from your pre-op size and try it on every few weeks or whenever you need a lift.
- Accept compliments graciously. Don’t minimize your weight loss. You have worked hard for the outcome for which you are being complimented. Simply say, “Thank you”.

Your Sexual Self

Changes in sexual patterns are common. In general, there seems to be an overall increase in frequency, quality, and enjoyment of sex. This may be related to decreased sexual inhibition and/or increased self-esteem and increased physical comfort. As body image improves, so does sexual functioning. New techniques are not an unusual finding after this surgery. Undressing together with the lights on may add new enjoyment and satisfaction for each other. Initiation of sex by the usually submissive partner can lead to increased fulfillment and contentment.

Points to Remember

- Remember to focus on your internal assets, accomplishments, abilities, and honorable qualities. We are *not* just our bodies.
- Don't judge anyone based on their personal appearance, and don't allow others to judge you based on your body size.
- Take time out for yourself and your body. Listen to your favorite music, read, start a garden, choose a hobby – all will enhance your quality of life.
- Keep a journal of your thoughts, feelings, and dreams, which will assist you in targeting your great accomplishments. It feels good when dreams and goals are met. Journaling your weight loss experience may help you appreciate it down the road when you've met and maintained your goals.
- Make and keep appointments with your surgeon.
- Become involved with a support group – in person or online.

Secrets to Success (Lifestyle Changes)

Eat only at mealtime

A meal is not just what and when you eat, but also how you eat. You should be eating five to six small meals/snacks per day. Establish a schedule for eating. This schedule will help you from feeling hungry. Avoid old eating habits such as eating on the run or when doing something else such as watching TV, reading, or working on the computer.

Each meal should contain protein

Protein is the main source of the building materials our bodies require to repair and maintain our organs. When you eat, make sure that at least half of each meal is composed of protein. Always EAT YOUR PROTEIN FIRST. Without a constant intake of protein, your body will begin to weaken. Your incisions will heal more slowly, and your skin will not be able to shrink and remodel. You may lose weight, but you will also lose the benefits of improved health and may lose your hair. When you eat adequate protein, and eat it first, you will experience earlier and better satisfaction from the food you eat. Protein seems to be the best stimulant of the body's reaction that promotes satiety (feeling full).

Eat slowly

Enjoying and savoring your food is an important part of eating. We encourage you to take the time to prepare your food to look and taste good. Pay attention to each bite and get maximum enjoyment from your food. You should be consuming meals over at least a 20-minute period, since this is the time it takes for your brain to get the signal that your stomach is full. Remember, your stomach capacity will be much smaller after surgery!

Chew your food well

You will get more satisfaction and enjoyment from your food if you chew it thoroughly before swallowing. Even more important, your food will be able to exit your stomach through the small opening at the bottom and help you feel full and satisfied. Large chunks of food can become lodged in this opening and cause pain, nausea, and vomiting. Cut your food, especially meats, into small pieces and chew carefully. Try to chew each bite 15-20 times before swallowing to slow down the mealtime and ensure food is chewed well enough to swallow safely.

Avoid Sweets and Sugars

Foods that contain added sugar can make you feel very strange if you eat them. Dumping syndrome (for bypass patients) occurs when sugar is rapidly placed into the small intestine. Most patients experience cramps, weakness, lightheadedness, and may have diarrhea. You may have to lie down until these feelings pass. This usually lasts 30 to 40 minutes. Read the labels on foods. Learn “code words” for sugar. If the list of ingredients contains fructose, sucrose, glucose or corn syrup in the first 4 ingredients, it should be avoided. Milk contains a special form of sugar called lactose. You may have difficulty with lactose after your surgery. A thin dairy product such as milk empties into the small intestine quickly and can cause “dumping syndrome”. More viscous (thick) forms of lactose such as cheese and yogurt may not cause these symptoms as quickly because they enter the small intestine more slowly. Not everyone has a problem with dairy products after surgery.

Drink Water

Drink generous amounts of water or any calorie-free, caffeine-free, non-carbonated beverage (at least 64 ounces) frequently throughout the day. Take small sips at first, and allow your pouch to empty. You will be able to increase the amount of water you drink over time. Do not drink water 30 minutes before a meal, during a meal or for 30 minutes following a meal, as this may cause nausea/vomiting or stomach pain.

Take Your Vitamins

Vitamins are necessary for the proper functioning of the body’s chemical “enzyme” systems. The body does not make vitamins. We must take them in as food or supplement them as needed. You **MUST** take supplemental vitamins and minerals regularly to avoid serious nutritional problems.

Avoid Carbonated Beverages and Straws

It is recommended that you avoid carbonated beverages and straws post-operatively due to the introduction of air into the stomach. After 6 months, you may tolerate “flat” diet soda.

Limit Fats

Fats have a very high content of calories (9 calories per gram vs 4 calories per gram for protein/carbohydrates) but no real nutritional value. Any significant intake of fats, such as cooking oils, salad dressings, mayonnaise, or butter will seriously decrease your rate of weight loss. Learn to avoid fats. Read food labels carefully. Pay close attention to the portion size and percentages on the label. When preparing foods, it is better to bake, poach, broil or boil instead of frying.

Avoid Alcohol

After surgery, alcohol can be dangerous, especially to your liver. Because of your altered anatomy, alcohol is absorbed more quickly and will reach higher levels in your blood. You will also feel the effects of alcohol on your brain more intensely. **NEVER** consume more than 2 drinks (standard size bar drinks) within a 24 hour period. **DO NOT DRINK ALCOHOL ON A REGULAR BASIS**, and **NO** alcohol at all for at least 6 months after surgery. Alcoholic drinks are considered “liquid calories” (7 calories per gram) with no nutritional value.

Do NOT Smoke

Smoking constricts blood vessels and therefore decreases blood flow. It can slow healing and in some cases has been linked to bleeding and the formation of marginal ulcers in bariatric surgery patients. Marginal ulcers can become a serious problem and eventually could lead to further surgery to correct the problem.

Exercise, Exercise, Exercise

Exercise is very important. You need to exercise to maintain your body's muscle mass and strength. When your body lacks sufficient energy intake it must select some form of alternate fuel. We want your body to burn fat, NOT muscle. If you are not using your muscles, the body will consume them to meet its energy needs. It is very important for you to exercise daily for at least 30 minutes. You probably will not be able to exercise for 30 minutes right after surgery. Try starting with 10 minute exercise sessions and increase the time you are exercising until you are able to tolerate the full 30 minutes at once. Remember, decreased calorie intake causes weight loss—exercise maintains weight loss.

Frequently Asked Questions

Q: If my bowel function has not returned by the time I leave the hospital, when can I expect my first bowel movement?

A: Bowel function usually returns by the 3rd to 5th day but it may be delayed for a few more days. Stools may be liquid at first but will firm up over a few days.

Q: Is nausea a common problem after gastric bypass surgery and gastric sleeve?

A: Nausea can be a common problem after gastric bypass and gastric sleeve. It is important to continue sipping your fluids to remain hydrated. You may “spit up” white, frothy fluid if you have had a bypass. This is also common, and may last for a few weeks. ***If your nausea is accompanied by true vomiting for more than 12 hours, call the doctor.***

Q: How much pain should I expect after surgery?

A: Everyone is different, and everyone reacts to pain differently. Your pain will be controlled in the hospital with IV pain medicine and oral narcotics. Many patients who undergo laparoscopic surgery stop taking narcotics a few days after surgery. You will continue to be sore as you heal, but you should be able to control the pain with over-the-counter medications such as liquid Tylenol. ***If your pain is increasing in severity and not controlled with pain medication, call your surgeon.***

Q: Will I ever be able to eat normally again?

A: ‘Normally’ is now a relative term. You will not have to eat liquids and pureed foods forever. You will be able to eventually enjoy “regular”, solid food in small portions. Keep the rules in mind. Eat slowly and chew very well. Don’t revert back to your old habits of social eating or gulping big bites rapidly.

Q: When can I drive?

A: It generally takes about 1 week to be safe to resume driving. Please ask your surgeon at the time of your first post-operative office visit. Do not drive if you are taking any pain medication.

Q: What do I do if constipation becomes a problem?

A: Since you eat smaller amounts of food, you will have smaller amounts of stool formed. This can lead to constipation. Some people find it handy to take 2 or 3 tablespoons of Milk of Magnesia every few days to help the process. Certainly, drinking plenty of water is very important and nothing works well for constipation if your water intake is poor. It is not uncommon to have a bowel movement every 2 to 3 days once you get regulated.

Q: What about my other medications? When do I start them?

A: Your surgeon will inform you as to if and when medications should be started/continued after surgery. Be sure to discuss this with him in the hospital and at your first follow-up appointment. If you are diabetic, you may decrease your diabetes medications quickly after surgery. It is important for you to check your blood sugars frequently post-operatively. You will start your vitamins *after* your 2 week post-operative appointment.

Q: What about vitamins after surgery?

A: *All patients* will need to take vitamin supplements for the rest of their lives. We recommend a bariatric-specific vitamin for bypass and sleeve patients. Our website has specific information about bariatric-specific vitamins that we recommend.

Q: If I have staples after surgery, will they interfere with special tests I might need later?

A: No. If you do have staples, they will be very small and often can't even be seen on a regular x-ray. The small pieces of metal are very non-reactive and they get imbedded in scar tissue. Tests like CT scans, MRI's, Upper GI series, and Ultrasounds are generally not a problem.

Q: I don't want anyone to know that I had weight loss surgery. If I go to a new doctor or go into the hospital for any reason do I *have* to tell those healthcare providers that I have had weight loss surgery in the past?

A: Absolutely, without a doubt, **YES!** Any healthcare provider involved in your care **MUST** be aware of your surgery – especially in an emergency situation or with any severe abdominal pain. That should be one of the very first things you tell them. Weight loss surgery patients have very specific needs, and it could alter your treatment plan.

Q: So, in the event of an emergency, what do I need to be prepared to tell the doctor or nurse in the emergency room?

A: You need to tell the doctor or nurse the following:

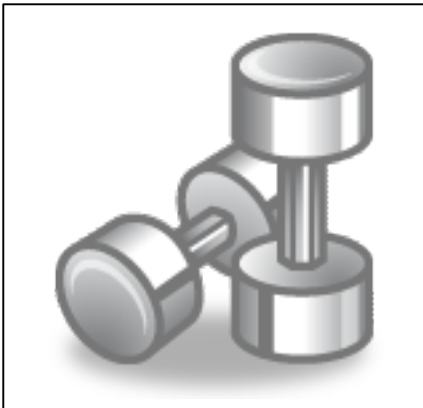
- Date and type of surgery (sleeve or bypass)
- Name and phone number of your surgeon
- Symptoms you are having and when they started
- Any medications you are taking, including vitamins

Exercise Guidelines

Physical activity is the cornerstone of good health. Bariatric surgery has given you an enormous advantage in reducing your weight once and for all. The surgery is only a *tool*, however, to help you to eat less food. Achieving maximum health benefits from your weight reduction requires you to increase your physical activity as your decreasing weight allows.

Physical activity regimens should incorporate these three components:

- **Aerobic activity** (cardiovascular exercise) – rhythmic activity using large muscle groups and sustained for 15-20 minutes; increases heart rate, breathing rate and sweating.
- **Anaerobic activity** – resistance exercise that builds muscle tissue, i.e. strength training.
- **Stretching** – flexibility exercises



Benefits of Aerobic Activity (Cardiovascular exercise)

- Reduces the risk of cardiovascular disease
- Reduces high blood pressure and reduces the risk of developing high blood pressure
- Reduces circulating triglycerides
- Improves cholesterol ratio – exercise increases the “good” cholesterol (HDL)
- Improves circulation
- Lowers your resting heart rate
- Improves quality of sleep and improves alertness
- Improves short term memory
- Burns fat and maintains weight loss
- Helps preserve lean body tissue – improves the body’s ability to use fat as energy
- Improves ability to recover from exertion
- Reduces risk of developing osteoporosis – slows bone loss
- Reduces anxiety and stress – helps manage stress effectively
- Improves physical appearance and improves self esteem
- Improves the immune system
- Helps maintain an independent lifestyle
- Decreases appetite for a short while
- Reduces likelihood of low back pain

Types of Aerobic Activity

- Walking or jogging
- Swimming
- Cycling
- Stairmaster
- Elliptical
- Aerobic class
- Dancing if sustained

Guidelines for Walking

- Wear good walking shoes – soft soles, good arch support, good heel support.
- Don't over dress – wear layers of clothes that you can remove as you warm up.
- Walk on soft surfaces – padded jogging tracks are best. Swing your arms and breathe deeply.

The Talk Test

If you cannot carry on a conversation while exercising, you are probably exerting too much and will have difficulty going at this pace for the necessary duration. You may not be able to perform aerobic exercise for 15-20 minutes a day at first.

The important thing is to do what you can and increase activity as your body allows.

Benefits of Anaerobic Activity (Resistance training)

- Improves the ease of performing daily tasks, such as climbing stairs, carrying heavy loads, lifting children, etc.
- Maintains and increases lean body mass
- Improves body composition (decreases % body fat)
- Increases resting metabolism
- Reduces the risk of injury
- Improves body posture
- Improves appearance
- Improves self esteem
- Reduces stress
- Reduces chance of lower back pain
- Helps maintain an independent lifestyle

Strength Training Program

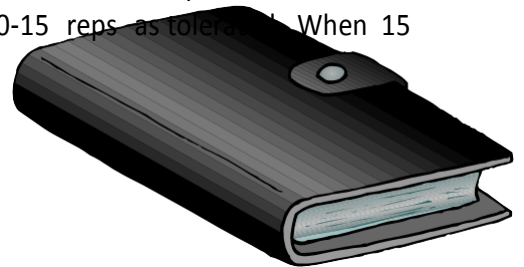
Strengthening is based on the overload principle. This simply means requiring the muscles to exert more force than they are used to. Resistance can be provided by body weight, free weights, weight machines, elasticity or buoyancy. When done properly, your muscles will respond and adapt to the stimulus by strengthening. A beginning program should consist of 8-10 exercises for the larger muscle groups. The following exercises may be appropriate:

- Leg Press, Overhead Press, Abdominal Curl, Leg Extension, Bicep Curl, Lat Pull Down, Leg Curl, Tricep Press, Seated Row, Chest Press, Back Extension

Technique Tips

- Get proper instruction before you use free weights or weight machines for the first time.
- Use proper posture and low back support during the exercises
- Emphasize SLOW AND CONTROLLED movements. Use a count of 2 to lift the weight and 3 to lower the weight. You will be working the muscle both directions this way, which increases the benefits of the exercise.
- Achieve a complete range of motion. Do not sacrifice technique to move more weight.
- DO NOT HOLD YOUR BREATH. Exhale when lifting; inhale when returning the weight to the original position.
- When performing a set of repetitions, the last 2-3 should be more difficult but not impossible.
- Starting with a minimal weight, perform each movement 10-15 times/repetitions. Allow 1-2 minutes between sets and exercises.
- Strength training exercises should be performed 2-3 days a week with a day of rest between (so the muscle worked can repair itself). Increase to 2 sets of 10-15 reps as tolerated. When 15 repetitions are **EASY** and you feel like you could do more repetitions, add resistance by increasing the weight 1-5 pounds and decrease repetitions.

You should be able to perform at least 10-12 repetitions at the new, heavier weight with proper technique.



Tracking Your Progress

Keeping a log of your post-operative exercise and other patient compliance factors will maximize the benefits you will get from your Bariatric surgery. The doctor's office will monitor your weight, your lab results, your side effects, and your overall health. Only YOU can manage your daily meal decisions, your vitamin compliance, your water drinking, your exercise program, etc.

Getting you to optimal health is a team effort; **the surgery is only a tool**. A training log can be an adjunct tool for you because it helps you record not only what you are doing, but also your progress. This can be a powerful motivator. You should record:

- **MODE:** Method of exercise you will be using, i.e. walking, pool walking, water aerobics, stationary bike, treadmill, other low impact activity. You want to do weight bearing exercises but be easy on those feet, ankles, knees, and hips. Note the route you walked, the training machines you used or the aerobic exercises you completed.
- **FREQUENCY:** Aim for 7 days/week, that way you will probably get in at least 5 sessions on average. Recording your day and time gives you a frame of reference for when you perform the best and with more pleasure.

- **DURATION:** Work to increase your exercise duration. Start with whatever amount you can handle right now, 5 min., 10 min, 20 min; it will vary by individual. Work towards a duration of 40---60 minutes at one time. You'll be surprised at how nicely the body responds to fitness training. You can record distance, calories and time.
- **INTENSITY:** Start at low to moderate level of exertion. Your goal is to increase your duration, therefore you may need to maintain a lower level of intensity to achieve this 40-60 minutes of duration goal. Once the 40-60 minutes becomes easy, you can increase your exertion. You will probably increase your walking pace or exertion level naturally as your fitness level improves. You should record your maximum heart rate, number of pounds lifted, number of repetitions, number of sets, etc.
- **DIFFICULTIES/MILESTONES:** Note where the crabby dogs are and which machines cause you pain. Note unusual aches or pains. Note any incremental goal that you establish for yourself. Record how you feel at the start of a workout then mention whether the workout changed your mood.

Benefits of Flexibility Exercises

- Improves physical performance and ease of motion
- Decreases risk of injury
- Improves coordination
- Increases circulation to exercised areas and reduces muscle soreness
- Improves muscle balance and postural awareness
- Reduces stress

Guidelines for Stretching

- Don't stretch cold muscles. Warm up using a slow walk or jog before stretching.
- Stretch slowly and with control. Do not bounce.
- Stretch only to the point where you feel tightness or slight resistance. Stretching should not be painful.
- Static stretching is most highly recommended. Hold each stretch for 10---30 seconds.
- Do not hold your breath during stretching. Use deep abdominal breathing when possible.
- Increase in range of motion will be specific to those muscles and joints being stretched.
- Pain is an indication that something is wrong and should not be ignored.
- Avoid overstretching.
- Exercise caution when stretching the low back and neck.
- Stretch muscles that are tight and inflexible.
- Stretching should be done both before *and* after exercise sessions to improve one's flexibility and reduce muscle soreness.

Relaxation Techniques

Relaxation is an important part of everyone's lifestyle. Whether you choose reading, watching TV, fishing, golf, taking walks or doing nothing at all, relaxation can be very beneficial in reducing stress. Relaxation not only makes you feel good, it also is effective in:

- Decreasing your heart rate
- Decreasing blood pressure
- Slowing down the body so it can recharge
- Releasing muscle tension and relieving body changes

The Relaxation Response

Though you probably have particular ways to relax that are enjoyable for you, the following technique called the RELAXATION RESPONSE may also be helpful when you need to relax. Read each step and follow the instructions and see if it works for you.

- Sit quietly in a comfortable position
- Close your eyes. DO NOT SLEEP.
- First, tighten all muscles in the body as tight as possible to the count of 10, then relax . . . let go all at once.
- Breathe in deeply through your nose, then as you breathe out, say the word "one" silently to yourself as you continue to breathe out. Breathe easily and naturally. You may substitute a different word that signifies quiet for you.
- Continue for 10 to 20 minutes. You may open your eyes to check the time, but do not use an alarm. When finished, sit quietly for a few minutes before opening your eyes and getting up.
- Do not worry about whether you are successful in achieving a deep level of relaxation. Maintain a passive attitude and allow relaxation to occur at its own pace.
- When distracting thoughts occur, try to ignore them and return to repeating your relaxing word.

Other Techniques to Relieve Stress

For some quick, simple tension releases:

- Get up, stretch and walk around.
- Take several deep breaths in and out.
- Sit, close your eyes, and let your mind take you to someplace relaxing
- Don't take yourself too seriously. Use your sense of humor: laughter is a marvelous tension releaser.
- "Talk out" things that are upsetting you. Try not to hold them in.
- Indulge yourself in your favorite hobby – remember to take at least a little time out of each day just for you.

Nutrition Guidelines

Basic Guidelines After Bariatric Surgery

NO carbonated beverages
NO sugar-sweetened beverages
NO alcoholic beverages
NO caffeinated beverages



- You can drink non-carbonated beverages sweetened with no-calorie sweeteners: Equal, Splenda, Sweet & Low, Truvia, Nutra-sweet, sucralose, aspartame, acesulfame K, stevia, monk fruit-in-the-raw
- Carbonated beverages should be avoided since they can cause bloating, abdominal discomfort, and stretch the stomach pouch.
- Avoid beverages with caffeine and alcohol as they can cause you to become dehydrated, especially after surgery. Also, mixed drinks high in sugar can cause dumping syndrome. Alcoholic drinks are high in “empty” calories.
- Drink at least 64 ounces of water or sugar-free, calorie-free, caffeine-free fluids daily.
- **No Gum or Straws**
 - Gum, if swallowed, may block the stomach opening and require an emergency room visit. It can also cause belching. For fresh breath, try breath strips that dissolve on your tongue.
 - Straws allow excess air to get into your stomach and may result in belching and/or increase in size of your pouch. Also, people tend to drink faster if drinking through a straw.

Read Food Labels

- Learn to recognize portion size of each food consumed.
- Look for “low sugar” foods (less than 5 grams of sugar per serving).
- Lactose is sugar found in milk, acceptable levels are 12 gms per cup of milk, and 7 gms per serving of yogurt.
- Look for “low fat” foods (less than 3 grams per serving, less than 1 gram of saturated fat).
- Avoid “trans fat”.
- Look for “good sources of fiber” (3 grams per serving or greater): helps with constipation, and you will feel full longer.
- High quality proteins: chicken, fish, fat-free dairy, whey protein, soy protein.

Avoid Sugary and Sweet Foods

- These can cause dumping syndrome after bypass surgery, which occurs when sugars pass too quickly from the stomach into the intestine.
- Sugar adds to your overall calorie count, which impedes weight loss.
- Look for “code words” for sugar. Examples: agave nectar, turbinado, high fructose corn syrup, evaporated cane juice, “raw, organic” sugar, brown sugar, maple syrup are just a few. There are over many ways to name sugar, and they all lead to excess calories which ultimately slows your weight loss.

Journaling

Prior to surgery, food is often used for comfort during times of anxiety, stress, boredom, etc. After surgery, this is no longer an option, and you must seek other ways to comfort yourself during these times. Many people feel that keeping a journal helps them through stressful, anxious times.

This can also be a useful tool to assist you with identifying food intolerances, as well as adequate protein and fluid intake. You can use a hand-written journal, or record your intake using a fitness app on your phone.

The most important thing to remember when journaling is to be honest! Don’t neglect to write something down because you feel it was unimportant or a one-time deal. If you journal appropriately and honestly, you will be able to identify your emotional triggers, if you’re eating foods you shouldn’t, eating too much, and coping mechanisms. It is a wonderful tool for self-accountability. The journal is also helpful during follow-up visits to the office, as the team can use this as an aide to assist you with further weight loss.

Diet Before Bariatric Surgery

Your surgeon will prescribe a low fat, low calorie diet 2 weeks before your surgery date. He may also have you start a full liquid diet 1 week prior to your surgery date. Following this diet will not only jump start weight loss but will also help reduce the size of your liver making the procedure easier to perform and thus more successful. You will receive more specific pre-operative instructions at your pre-operative visit with your surgeon.

During this time it is important to include a **high protein shake** multiple times daily to help ensure good nutritional status prior to surgery. Aim for a goal of ~ **60-80 grams of protein per day**. It would also be beneficial to add the **multivitamin** and **calcium supplement** that you will be using after surgery as a safety net in meeting basic nutrient needs.

Foods to include in your diet during this period: lean meats (chicken, turkey, tuna, fish, egg whites, vegetarian meat substitutes, beef or pork tenderloin, non-fat dairy, vegetables, fresh fruits, oats, brown rice, whole wheat pasta, high fiber cereals, calorie-free drinks. It is suggested to wean caffeine intake during this time as well.

Protein Shakes

There are many protein shake varieties on the market that would be acceptable prior to surgery. These shakes will also be used after surgery to meet your protein goals. When looking for protein shakes, look for those with 15-20 grams of protein per shake, and less than 5 grams of sugar. It is recommended that you choose a shake that contains 25-30 grams of whey protein isolate per serving. Whey protein isolate is the highest quality protein on the market, and is digested and absorbed the best after bariatric surgery. It is a good idea to try different shakes to see what appeals to your taste. Here are a few examples. See the last page of this packet for a comprehensive list. If you find a shake that is not on this list, please use the above guidelines to ensure your shake meets the requirements for protein and sugar content.

- Jay Robb Whey Protein
- Bariatric Advantage (in our office or online)
- Isopure Whey Protein
- Premier Protein (ready-to-drink)

Pre-surgery Shopping List

- Protein supplements (shakes, protein powder)
- Clear liquids (SF gelatin, SF popsicles, water flavorings)
- Vitamins and calcium
- Full liquids (SF pudding/yogurt, fat-free milk)
- Blender or shaker for protein powders/smoothies

Diet Progression After Bariatric Surgery

CLEAR LIQUIDS – first 2 days after surgery (start after upper GI)



FULL LIQUIDS for 3 weeks (after follow-up visit with your surgeon)
Goal: 60-80 gm protein/day (or more depending on calculated needs)



PUREED for 3 weeks

**DO NOT ADVANCE TO PUREED DIET UNTIL
YOU SEE YOUR SURGEON**

Protein goal of 60-80 grams per day (or more depending on calculated needs)
Begin Multivitamin and Calcium supplement (do not take at same time)



SOFT for 3 weeks
Protein goal of 60-80 gm per day (or more depending on calculated needs)



REGULAR/MAINTENANCE
Track your protein and calorie intake!

Clear Liquid Diet: Post-op Days 1 & 2

- Consume 30cc (1 ounce) every 15 – 20 minutes
- If needed, use a timer to insure you are taking fluids properly
- Fluids should be sipped, not gulped
- No straws, caffeine, alcohol, or carbonation
- ALWAYS have something to drink with you

Clear Liquids Allowed:

- Water
- Water flavored with lemon, lime, cucumber, etc.
- Sugar-free gelatin
- Sugar-free, decaf, non-carbonated juices
- Decaf coffee or tea
- Clear broth (low sodium)
- Sugar-free popsicles
- Clear juices (dilute $\frac{3}{4}$ water, $\frac{1}{4}$ juice)

Clear Liquids you may include (examples):

- Crystal Light®
- Propel®
- Fruit 2 O®
- Smart Water®
- Sugar-free Gatorade® (G2)
- Powerade Zero®
- Diet Snapple® (caffeine-free types)
- Diet Ocean Spray® juices
- Vitamin Water Zero®



Full Liquid Diet: Begin Post-op Day #3

Continue until 3 weeks after surgery
(sleeve/bypass)
(2 weeks: gastric balloon)

Full liquids can now be added to your diet. Again, all liquids should be consumed in 30cc increments every 15 minutes. Full liquids are alternated with clear liquids in 30cc increments in order to consume a total of approximately 6 – 8 cups of liquid per day. At the 2-week post-op mark, protein intake should be at least **30 grams** per day. If you are able to meet your protein goal of **60-80** grams per day (or more depending on your calculated needs), that is preferable. **Follow this diet until your follow-up visit with your surgeon.**

Food Item	Serving	Protein
Milk, skim or ½%	1 cup	8 g
Cream soups, strained	½ cup	2-4 g; add double milk** or protein powder
Low-sugar protein shake	Varies	15-27g mixed w/water 23-35 g mixed w/milk
Custard, sugar---free, made with skim milk	½ cup	2g; make w/double milk** or add protein powder
Yogurt, sugar---free (light), plain, without fruit/nuts	6---8 oz	5-15g
Cream of Wheat or Cream of Rice (thinned) Puddings, plain or tapioca, sugar-free	½ cup	2-3 g 4g w/milk

- Make **double milk** in order to boost your protein intake. Combine 1 cup of skim milk with 1/3 cup non-fat dry milk powder. Use the double milk to make puddings, custards, hot cereals, cream soups, etc. Double milk has **16g of protein** per cup.
- Use high protein skim milk as base for cream soups, puddings (Fairlife, Mootopia).
- The main protein sources in a full liquid diet include nutritional supplement drinks, milk, cream soups, and yogurt.
- A protein powder supplement that contains no carbohydrates or fat may be added to achieve your protein goal for the day.
- Acceptable yogurt choices: Oikos Triple Zero Greek, Dannon Light & Fit Greek, Chobani 100 Greek, Activia Greek Light, any brand of plain non-fat greek yogurt.

NOTE: Some patients may experience lactose intolerance after surgery. It is usually temporary and avoiding dairy foods can alleviate the symptoms. Substitute dairy products with Lactaid® or Dairy Ease® milk, Lactaid® drops or chewable pills found at the grocery or drug store, or soy-based beverages and foods.

Pureed Diet: 3 weeks (sleeve/bypass)

(1 week: gastric balloon)

Do not start this diet until you have seen your surgeon at your first post-op visit. Approximately **three weeks after surgery**, and if the previous liquids are tolerated well, pureed foods may be added to the diet. Slowly increase caloric liquids to **60cc (2 ounces or ¼ cup)** and instead of drinking every 15 minutes, eat **OR** drink every **30 minutes. DO NOT EAT AND DRINK AT THE SAME TIME!** You should be meeting your protein goal of 60-80 grams (or more depending on calculated needs) at this time. Foods included in a pureed diet are of baby food consistency.

Food Item	Serving	Protein (Approx.)
Eggs –scrambled, soft boiled, or poached	1 egg	8g
Unsweetened pureed fruit, mashed bananas, applesauce	¼ cup	0g; add protein powder
Well-cooked/pureed vegetables – avoid those that cause gas: broccoli, cauliflower, brussels sprouts, onions	¼ cup	1g; add protein powder
Pureed meat	1 oz	7g
Finely mashed white fish	1 oz	7g
Fat free cottage or ricotta cheese	¼ cup	6g

- Pureed foods are the consistency of baby food and they should be pureed in a blender or food mill/food processor
- Slowly increase the serving size of food up to ¼ cup
- Continue to sip water throughout the day to prevent dehydration
- Add one new food each day
 - If a specific food is not tolerated well, wait about one week before trying it again
 - If it is still not tolerated well, avoid it for several weeks before trying again
- **Do not drink fluids while eating.** Drinking and eating at the same time will fill the stomach up faster and may cause dumping, nausea, or vomiting.
- Work up to your protein goal. Track your protein intake with your journal or fitness app.

Sample Pureed Diet

BREAKFAST

7:00 2 ounces high protein drink
 7:30 3-4 Tbsp scrambled eggs
 8:00 2 ounces high protein drink
 8:30 3-4 Tbsp scrambled eggs

9:00 – 9:30 Sip on water

MID--MORNING SNACK

9:30 2 ounces high protein drink
 10:00 3-4 Tbsp pureed fruit
 10:30 2 ounces high protein drink
 11:00 3-4 Tbsp pureed fruit

11:30 – 12:00 Sip on water

LUNCH

12:00 2 ounces sugar-free beverage
 12:30 3-4 Tbsp puree meat
 1:00 2 ounces sugar-free beverage
 1:30 3-4 Tbsp puree vegetable

2:00 – 2:30 Sip on water

AFTERNOON SNACK

2:30 2 ounces sugar-free beverage
 3:00 3-4 Tbsp yogurt
 3:30 2 ounces sugar-free beverage
 4:00 3-4 Tbsp yogurt

4:30 – 5:00 Sip on water

DINNER

5:00 2 ounces high protein drink
 5:30 3-4 Tbsp pureed meat
 6:00 2 ounces high protein drink
 6:30 3-4 Tbsp pureed vegetable

7:00 – 7:30 Sip on water

EVENING SNACK

7:30 2 ounces high protein drink
 8:00 3-4 Tbsp pureed fruit
 8:30 2 ounces high protein drink
 9:00 3-4 Tbsp pureed fruit

9:30 – 10:00 Sip on water

Soft Diet: 3 weeks (sleeve/bypass)

(1 week: gastric balloon)

This diet consists of **soft, low fat, low sugar** foods as tolerated. Soft foods are those that are easy to chew and digest. This eliminates foods such as raw fruits and vegetables, chewy breads, fibrous cereals and crackers, popcorn, whole beans and nuts, and tough meats. Eat 5 – 6 small meals/day, approximately 3 – 4 hours apart. Meals should contain $\frac{1}{2}$ to $\frac{3}{4}$ **cup of food**. Your protein goal is now **60 to 80 grams/day** (or more depending on your needs calculated by your dietitian).

- Foods should be softened by cooking/mashing.
- Use moist, tender poultry, fish, and ground meats (boiled, stewed, covered/basted).
- Eat protein foods first
- Rice, breads, and pasta need to be well chewed or avoided. Watch your portion sizes!
- Chew food to the consistency of applesauce before swallowing: chew, chew, chew.
- Continue to avoid sugary foods and high-fat foods. Avoid adding fat to foods (margarine, gravy, oil, etc.) unless instructed to do so by your dietitian or physician.
- Continue sipping water to avoid dehydration. Make sure to drink at least 64 ounces of water (or other non-caloric, decaffeinated beverage) daily.
- Stop drinking 15-30 minutes prior to meals, and wait 30 minutes after meals to drink liquids to prevent dumping or over-stretching your pouch.

Sample Soft Diet

BREAKFAST

7:00 1 boiled egg
1 piece low calorie toast
 $\frac{1}{4}$ cup yogurt

MID-MORNING SNACK

10:00 $\frac{1}{4}$ cup cottage cheese
4 soft fruit slices
 $\frac{1}{4}$ cup cooked vegetables

LUNCH

1:00 1 ounce cooked poultry or fish
 $\frac{1}{4}$ cup rice
 $\frac{1}{4}$ cup cooked vegetables

AFTERNOON SNACK

4:00 High protein shake

DINNER

7:00 1 ounce ground beef
 $\frac{1}{4}$ cup mashed sweet potatoes
 $\frac{1}{4}$ cup cooked vegetables

EVENING SNACK

10:00 $\frac{1}{4}$ cup tuna salad (use light mayo or plain, fat-free greek yogurt)

Maintenance Diet

Eating a regular, low-fat, low-sugar diet usually starts 2 – 3 months after surgery. This diet will be a guide for new lifetime eating habits. All of the foods mentioned before can be eaten, as well as favorite foods from your diet prior to surgery – as long as they are low in fat and sugar. The sample diet below provides about 60 grams of protein. You will need to drink a high protein beverage and/or add protein powder to foods to meet your needs of **60-80 grams of protein per day, or more depending on your calculated needs.**

- It is difficult to meet your protein needs without the daily addition of a high protein beverage and/or the use of protein powder.
- To add flavor, season foods with spray margarine, herbs, and spices.
- Avoid nuts, seeds and popcorn until 6 months post-operatively.
- Always remember to chew thoroughly, paying special attention to meats and fibrous fruits and vegetables (celery, pineapple, pea pods, asparagus, etc.).
- Do not forget to sip water all day – **at least 64 fl oz.**
- Continue your vitamin/mineral supplementation.
- Remember the dietary concepts that are crucial for long-term success: low-fat, low-sugar, low-sodium, high-protein. See the following table for foods allowed and not allowed.

Sample Maintenance Diet

BREAKFAST

7:00 ¼ cup hot cereal
1 hard-boiled egg
¼ slice Canadian bacon

MID-MORNING SNACK

10:00 High protein shake

LUNCH

1:00 1 ounce cooked chicken
¼ cup green beans
¼ cup cooked pasta

AFTERNOON SNACK

4:00 High protein bar

DINNER

7:00 1 ounce beef or pork
¼ cup brown rice
¼ cup carrots

EVENING SNACK

10:00 ¼ cup cottage cheese
¼ cup soft fruit

Food Groups for the Maintenance/Soft Diet

Food Group	Foods Allowed	Foods NOT Allowed
Beverages	Water, all artificially sweetened beverages, decaf tea and coffee	Carbonated beverages, sugar sweetened beverages
Milk/High Protein Drinks	Skim or ½ % milk, protein shakes with at least 15 grams of protein and less than 5 grams of sugar per serving	Whole or 2% milk, regular milk shakes or malts, protein shakes with more than 5 g sugar/serving
Breads (1 serving = 1 slice or sweetened 6 crackers; 2---3g protein)	All enriched low fat breads, crackers, biscuits, waffles, pancakes (as tolerated)	Bread or bread products with dried fruit or nuts, breads
Cereals (Protein varies)	All cooked and refined grain dry cereals including grits, oatmeal, cornflakes, etc.	Whole grain cereals with nuts, seeds, dried fruit or coconut
Desserts (1 serving = ½ cup; protein varies)	Must be sugar free: puddings, gelatin, custard	Candies, desserts prepared with nuts/dried fruit/coconut, any other sugar-sweetened dessert items
Fats (0g protein)	Light sour cream, olive oil, mayonnaise (fat-free); spray margarine	All other fats (butter, margarine)
Fruits and Fruit Juices (Serving size = 1 piece or ½ cup; 0g	Cooked, canned fruit with no sugar added, in natural juices, raw fruits (chew thoroughly)	Fruits with seeds

Food Group	Foods Allowed	Foods NOT Allowed
Potato or Potato Substitutes (½ cup = 2g protein)	All baked, boiled, mashed white or sweet potatoes, yams; macaroni, noodles, or spaghetti; rice	Fried, creamed, scalloped white or sweet potatoes, wild rice
Vegetables (½ cup = 2g protein)	Cooked vegetables, raw vegetables without seeds or thick skins. Chew fibrous/stringy vegetables thoroughly (celery, asparagus, pea pods, etc).	Raw vegetables w/seeds; fried vegetables; gas forming vegetables may be excluded: broccoli, brussels sprouts, cabbage, cauliflower, sauerkraut
Soup (½ cup = 2---4g protein)	Broth or cream soups (low fat)	High fat cream soups
Protein Bars	Bars with a ratio of 2:1 protein to carbohydrates; ex: ≤ 10g carb with > 20g protein	High carbohydrate bars with little protein; bars containing items not tolerated
Meat, Fish, Poultry, and Meat Substitutes (1oz or ¼ cup = 7g protein)	All baked, broiled, stewed, tender cuts of beef, poultry, fish, pork, lamb, veal; canned or frozen fish or shellfish; low-fat cheese, cottage cheese; whipped peanut butter; soy beans; boiled, poached, scrambled eggs	Fried eggs with grease/oil; fried meats, fish or poultry; pickled meats, fish, or eggs; smoked salt-cured meats or fish; highly seasoned, spiced meats; high-fat cheese; chunky peanut butter
Miscellaneous (Protein varies)	Fat-free cream sauces and gravies, mild herbs and spices, vinegar, ketchup, chocolate, lemon juice, pepper, mustard	Nuts, pickles, olives, hot peppers, popcorn, raisins, coconut, whole cranberry sauce; strong flavored seasonings unless tolerated (garlic, horseradish, hot sauces, chili sauce, celery seed, hot mustard); added salt
Protein Bars	Bars with a ratio of 2:1 protein to carbohydrates; ex: ≤ 10g carb with >20g protein	High carbohydrate bars with little protein; bars containing items not tolerated

****Please remember – everyone is different; you may tolerate foods that others cannot and vice versa. Eventually you will figure out what works for you, but it will take some time.**

Vitamin & Mineral Supplements

In addition to eating much less food, you will also **absorb** vitamins and minerals differently after surgery. You will require DAILY vitamin and mineral supplementation for the *rest of your life*! Vitamins are critical for your body to function properly: they help you to use energy, help your brain and nerves to function, help fight infections, and help your teeth, skin, and bones to stay healthy. Your vitamin must be chewable (no gummy vitamins), or specifically designed for post-bariatric surgery patients. Your physician or dietitian will assist you in choosing the correct vitamin which will properly meet your needs. A multivitamin and calcium supplement is sufficient for most patients; your surgeon will notify you if additional supplementation (iron, B12) is needed based on laboratory values.

Multivitamins

- **Bariatric Advantage Ultra Multi Formula with Iron (capsule)**
- **Bariatric Advantage Chewable with Iron**

Multivitamin Guidelines

- Take in divided doses, in the morning and at bedtime.
- **Do not take at the same time as your calcium supplement.**
- Do not take with meals.
- Chewable or liquid vitamins are necessary (or quick dissolve capsule by Bariatric Advantage).
- Do **NOT** take gummy vitamins!
- **Start taking your multivitamins AFTER your first follow-up visit with your surgeon.** At this visit, you will receive more specific instructions on taking your vitamins depending on the type/brand you are taking.
- There are many different brands available. Check label to make sure the vitamins contain 80-100% of the daily value (DV) of: thiamine, folic acid, B12, Biotin, Iron, Zinc.

Calcium Citrate

- **Bariatric Advantage Calcium Citrate + Vitamin D Chews, 500 mg (preferred)**
- **Upcal D (Amazon)**
- **Life Time Calcium Citrate (liquid)**
- **Bluebonnet Calcium Citrate (liquid)**

Calcium Guidelines

- Calcium citrate: need 1000-1500 mg daily (divided doses)
- 2 chews/day for Sleeve; 3 chews/day for Gastric Bypass (500 mg)
- Do not take Calcium with Iron, as it will interfere with absorption
- Wait at least 2 hours before taking calcium after you take your multi w/iron
- Take 500 mg at a time, 2-3 times during the day to meet the goal amount
- Start taking your calcium AFTER your first follow-up visit with your surgeon.

* You may order Bariatric Advantage vitamins and calcium through our office or online.

Resources

Useful Websites

www.Obesityhelp.com
www.Realizemysuccess.com
www.bariatriceating.com
www.unjury.com
www.bariatricfusion.com
www.bariatricadvantage.com
www.theworldaccordingtoeggface.com
www.fitday.com
www.calorieking.com
www.foodfit.com
www.lowfatlifestyle.com/foodstats.com
www.LoseIt.com
www.thedailyplate.com
www.livestrong.com
www.myfitnesspal.com
www.myfooddiary.com
www.chefdave.org (recipes)

Apps

My Fitness Pal (preferred)

Calorie Counter

Livestrong

The Daily Plate

Absolute Fitness

My Plate

Recommended Reading

Winning After Losing; Keep Off the Weight You've Lost – *Forever* by Stacey Halprin

Eat It Up! The Complete Mind/Body/Spirit Guide to a Full Life After Weight Loss Surgery by Connie Stapleton

Before and After: Living and Eating Well After Weight Loss Surgery by Susan Maria Leach

Eating Well After Weight Loss Surgery

Protein Shopping List (where to buy in parentheses)

Clear liquid protein

- Isopure: 40 grams (GNC/Amazon/Vitamin Shoppe)
- Lift (Atkins): 20 grams (Walmart)

Protein Shakes (Ready to Drink or Powder)

- Bariatric Advantage: 27 grams of protein (preferred) (our office)
- Jay Robb Whey Protein: 25 grams (preferred) (Kroger/HEB)
- Isopure: 26 grams (preferred) (GNC/Vitamin Shoppe/Amazon)
- Unjury: 20 grams (online only)
- Syntrax Nectar: 20 grams (our office)
- Quest Protein: 23 grams (GNC/HEB/Vitamin Shoppe)
- Designer Whey: 18 grams (grocery stores)
- Lean Body on the Go: 20 grams (Walmart)
- Atkins Shake: 15 grams (grocery stores)
- EAS AdvantEdge: 17 grams (grocery stores)
- Muscle Milk Light (100 calories): 15 grams (grocery stores)
- Jay Robb Egg White Protein: 24 grams (Kroger/HEB)
- Teras Whey: 21 grams (HEB)
- Slim Fast High Protein: 20 grams (grocery stores)
- Cytosport Whey Isolate: 32 grams (GNC)
- GNC Amplified 100% Protein Drink: 20 grams (GNC)
- EAS Myoplex: 42 grams (300 calories) (grocery stores)
- Pure Protein: 23 grams (grocery stores)
- Premier Protein (160 calories): 30 grams (Ready-to-Drink) (Walmart, Sam's, Costco)
- Arnold Iron Whey: 22 grams (Walmart, Sam's)
- Muscletech whey isolate: 30 grams (Walmart, Sam's)

Protein Powders (unflavored)

- Bariatric Advantage (unflavored): 27 grams
- Isopure: 26 grams
- Unjury: 20 grams
- Designer Whey: 18 grams

Protein Bars

- Think Thin
- GNC Total Lean
- Lift (by Atkins)
- Detour Low Sugar
- Quest
- Met-Rx Protein Plus
- Pure Protein
- Power Crunch
- Premier Protein