

WEIGHT LOSS SURGERY

AN INFORMATIONAL BOOKLET



DIGESTIVE DISORDERS CENTER

Introduction:

This booklet is for individuals who are considering surgery as a means for weight loss. Its purpose is to educate the reader on the available options for surgical treatment of clinically severe obesity and the advantages, disadvantages and material risks of such operation(s). Bring this booklet with you during your visit with your surgeon.

Further information on obesity and weight loss surgery can be obtained from the American Society for Bariatric Surgery by writing to: ASBS, 140 NW 75th Dr., Suite C, Gainesville FL 32607 or by calling 352.331.4975, or by visiting its website at **www.asbs.org**.



WEIGHT LOSS SURGERY **at Tampa General Hospital**

Obesity is a rapidly increasing chronic and complex disease in the USA. The majority of American adults are overweight, defined as a Body Mass Index (BMI) of 25 to 29.9 kg/m² or obese, BMI ≥30 kg/m². The prevalence of obesity has increased from 13% to 31% in the past four decades.

The health consequences of obesity are most apparent in individuals whose weight exceeds twice their ideal body weight (BMI > 40 kg/m²). The risk of death is doubled in obese individuals as compared to non-obese individuals. The risk of cancer is also quadrupled (four times higher). In addition, the risk of death from diabetes or heart attack is 5-7 times greater than the general population.

What is Obesity?



Ideal body weight is calculated based on height. In general, individuals who weigh twice their ideal body weight or at least 100 lbs. (45.5 kg) above ideal body weight are considered to have clinically severe obesity.

Another way to determine the degree of obesity is to calculate the Body Mass Index, $BMI = \text{weight (in kilograms)} \div \text{height (in meters squared)}$. Individuals with $BMI > 40 \text{ kg/m}^2$ are considered to have clinically severe obesity.

Causes of Obesity

The underlying causes of severe obesity are not known. There are many factors that contribute to the development of obesity including hereditary, metabolic and eating disorders as well as environmental factors. There are certain medical conditions that may result in obesity such as intake of steroids and hypothyroidism.

Since we do not fully understand the basis of obesity, a specific treatment (like antibiotics for infection) has not been possible. Hence, we have been treating the problems that arise from obesity but not its cause.

Consequences of Obesity

HEART DISEASE



Excess weight strains the function and performance of multiple body systems. Obesity is a risk factor for developing heart disease. The heart and other systems are faced with demands that may exceed their abilities. These

excessive demands may ultimately lead to system failure. Hypertension (high blood pressure) can result from obesity. Longstanding and untreated hypertension results in heart and kidney damage and may cause a stroke. The combination of heart disease and high blood pressure can be life threatening to obese individuals.

SLEEP APNEA



Sleep apnea develops as a result of fat deposits in the tongue and neck that can cause intermittent obstruction of the airway. This obstruction is worse when laying flat (during sleep) and causes cessation of breathing (apnea). Individuals with sleep apnea have to wake up and reposition themselves in bed many times resulting in sleep deprivation and the need for frequent naps during the day. More importantly, carbon dioxide can build up to dangerous levels in the blood affecting how well the lungs and heart function. Asthma and shortness of breath can be direct consequences of obesity.

DIABETES



Obesity can cause diabetes (high blood sugar) or make existing diabetes worse. This occurs because obese individuals develop resistance to insulin that regulates the level of blood sugar in the blood. Over time, high blood sugar can cause serious damage to the body.

ORTHOPEDIC PROBLEMS



Another consequence of being overweight is the rapid wear of the joints of the knees and hips resulting in pain and limitation of mobility. Similarly, the bones and muscles of the back are constantly strained resulting in back pain and disc problems.

SKIN BREAKDOWN



Skin hygiene can be a significant problem in obese individuals as the layers of the skin can rub against each other causing skin breakdown and infection.

LEG SWELLING/BLOOD CLOTS



Leg swelling is common and may be caused by blood clots in the leg veins. If untreated, skin breakdown can occur and the resulting wounds can be extremely difficult to heal.

HEARTBURN



Heartburn and acid reflux are common complaints. Frequently, obese individuals require medications to control their symptoms.

PSYCHOLOGICAL



Obese individuals may develop low self-esteem and depression because of their weight and the social pressures from a society that erroneously regards their disease as a result of self-indulgence.

OTHER CONDITIONS AS A CONSEQUENCE OF OBESITY ARE:

Dyslipidemia: high levels of cholesterol and triglycerides

NASH: non-alcoholic steatohepatitis or fatty deposits in the liver causing inflammation and liver damage

Stress Incontinence: leakage of urine, mostly in women

Pseudotumor Cerebri: swelling in the brain that affects the vision

DVT/Pulmonary Embolus: blood clots in the leg veins that can travel to the lungs and block its blood circulation

Gallstones/Cholecystitis: stones and infection in the gallbladder

Infertility: difficulty getting pregnant

Pancreatitis: inflammation of the pancreas

Treatment Options for Obesity

MEDICAL /NON-OPERATIVE



Most of these approaches are based on a low-calorie, low-carbohydrate diet with a combination of behavior modification therapy and exercise. The results of these interventions are not well established in individuals with clinically severe obesity.

It is estimated that less than 5% of individuals who participate in such weight loss programs will lose a significant amount of weight and maintain that loss for a long period of time. As a matter of fact, more than 90% of individuals treated this way relapse and regain the weight within two years.

The dismal results of dieting have prompted interest in pharmacological treatment. The most notable and promising weight loss drugs were Fen-Phen; however, its side effects on heart valves led to its withdrawal from the market. Other medications are being used for less severe obesity with some success.

SURGICAL



Surgery has provided durable and sustainable long-term weight loss. Surgical treatment is designed to induce weight loss but can not reverse the underlying causes of obesity.

The history of weight loss surgery is very interesting and reflects our evolving understanding of intestinal physiology and long-term side effects. Basically, operations for weight loss can be regarded as 1. restrictive (making the size of the stomach smaller, thus limiting the amount of food intake); 2. malabsorptive (limiting the length of the intestine that comes in contact with food, thus limiting the amount of food absorbed by the body), or 3. a combination of restrictive and malabsorptive.

The most common operation for weight loss in North America is the Roux-en-Y Gastric Bypass (RYGB). We perform the RYGB, which is a combination of restrictive and malabsorptive procedures, because it has provided superior results. Recently, the Laparoscopic Adjustable Gastric Band, which is a purely restrictive procedure, has been used with modest short-term success. We also perform this procedure.

The National Institute of Health (NIH) recommends weight-loss surgery for those individuals with a BMI ≥ 40 or a BMI ≥ 35 with co-morbidities and who can not lose weight by other means.

ADVANTAGES OF SURGERY

Weight loss is not the only reason that weight loss surgery should be undertaken. The more important benefits of surgical treatment are the improvements of general health and quality of life. The following medical conditions are improved or eliminated after weight loss: hypertension, congestive heart failure, diabetes, sleep apnea, asthma, hyperlipidemia, heartburn, arthritis, leg ulcers, etc. A reduction in medications is also noted.

Am I a Candidate for Weight Loss Surgery?



Individuals who weigh 100 pounds or more over their ideal body weight, or have a Body Mass Index (BMI) of 40 kg/m^2 or greater are candidates for weight loss surgery.

Individuals who are less than 100 pounds over weight or have a BMI between $35\text{-}39 \text{ kg/m}^2$, and have been diagnosed with obesity-related medical conditions may qualify for weight loss surgery.

Getting Started:

You have already received this Informational Booklet



You must attend a New Patient Orientation Session
(your physician will provide schedule with dates and times)



You must also attend a Weight Loss Surgery Support Group
(your physician will provide schedule with dates and times)



You must complete a comprehensive health evaluation
(your physician can provide name of providers)



Not Cleared for Surgery



Cleared for Surgery



Additional work-up,
therapy, intervention



Cleared for Surgery



Physician's office will contact you to schedule an appointment



Meet with the surgeon and the surgical team



Physician's billing office files for insurance authorization



Approved – surgeon's office will contact you to schedule date for operation

New Patient Orientation Session and Weight Loss Surgery Support Group Meeting



An Orientation Meeting is held at Tampa General Hospital the 2nd Thursday of each month from 3:00 p.m. to 5:00 p.m. or the 4th Monday of each month from 6:00 p.m. to 8:00 p.m. in the Rehabilitation Center, 2nd floor Activity Room. These are mandatory meetings for pre-surgery patients. A Weight Loss Surgery Support Group meets in the same place following the Thursday Orientation session from 6:30 p.m. to 8:30 p.m.

Attending these meetings is free and you do not need to pre-register. Parking is available in the parking garage at Tampa General Hospital. Attendees are responsible for parking fees.

Some of the material discussed at these meetings may not be appropriate for children, so we ask that they not accompany you; however, your spouse or significant other is encouraged to attend.

Comprehensive Evaluations and Testing



Prior to your weight loss surgery, we require that you undergo comprehensive medical, psychological and nutritional evaluations. Your physician will provide information on where these evaluations may be completed. If you are married or involved in a long-term relationship, your spouse or significant other may be required to meet with the psychologist as part of the evaluation process. You may also be required to be evaluated by other specialists (cardiology, pulmonary, etc) and/or participate in additional psychological and/or nutritional sessions prior to being cleared for surgery.

You will be responsible for the cost of the initial comprehensive medical, psychological and nutritional evaluations. Your insurance may reimburse you for a portion of these evaluations.

To expedite your testing, you can make arrangements through your primary care physician to have the following testing completed prior to your evaluations.

- Complete Metabolic Profile (CMP)
- Complete Blood Count (CBC)
- Thyroid Function Test (TFT)
- HbA1C (Diabetics MUST have this test done)
- Liver Function Test (LFT)
- Lipid Panel
- Iron and ferritin (if any history of anemia)
- Colonoscopy (Patients 50+ years old)

Please make arrangements to hand-carry these test results to your evaluation appointment. You may also bring other test results that have been completed in the last 12 months including stress test, sleep study, additional lab work and CT scans.

Discuss your Weight Loss Surgery with the Bariatric Surgery Team

After you have completed all the necessary evaluations and testing, an appointment will be scheduled for you to meet with the surgeon and members of the surgery team. During this appointment your readiness for surgery will be determined. Weight loss expectations of your surgery will be discussed, and we will ensure that you fully understand the risks and possible complications of weight loss surgery. At this appointment it will also be determined if you will have your operation laparoscopically or open.

The Operation of Gastric Bypass:

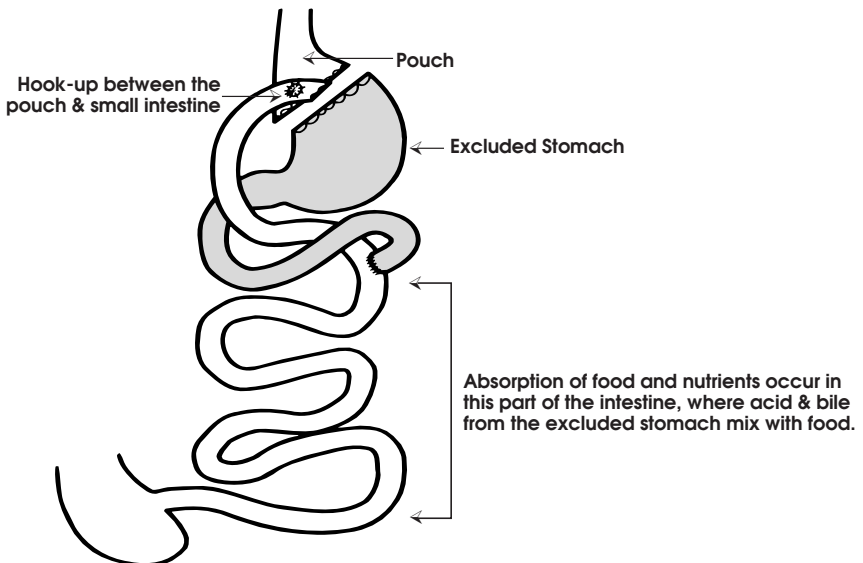


This operation entails dividing the stomach into two compartments, thus creating a very small pouch (approximately 30 ml or 1 ounce) that remains connected to the esophagus (food pipe). The larger portion of the stomach (excluded stomach) is left in its place and not removed (figure 1). The two parts of the stomach are completely separated. The small intestine is divided downstream from the stomach and one of its ends is attached to the small stomach pouch. Ingested food goes into the small intestine and bypasses the stomach, hence the name of the operation.

The intestine is then reconnected downstream from the pouch to receive the acid secretions made by the bypassed portion of the stomach (shaded area). Absorption of food occurs in the common channel where ingested food meets the acid and bile from the bypassed stomach.

Because more than one third of the patients who lose weight develop stones in their gallbladder, we routinely remove the gallbladder. This only takes 20 minutes and adds little risk to the operation. In addition, a very small sample of the liver will be obtained to check if your liver shows signs of damage from obesity.

Figure 1; Roux-en-Y Gastric Bypass

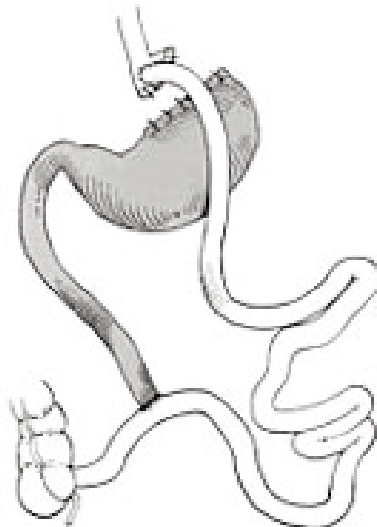


This operation induces weight loss by limiting the amount of food you eat and by limiting absorption of food in the intestine. In individuals with a BMI that exceeds 60 kg/m² we will consider elongating the segment of intestine in which there is no absorption and shortening the common channel, so less food and calories are absorbed and greater weight loss is achieved (figure 2).

Gastric Bypass is done either laparoscopically (using a camera and small incisions) or open (using an incision between the breast bone and the navel). The choice of either approach depends on your body habitus and if you have had previous abdominal surgeries. You and your surgeon will decide whether you will have the laparoscopic or open operation performed.

The advantages of laparoscopic weight loss surgery include a smaller chance of infection in the surgical skin incision, slightly faster hospital recovery and shorter return to daily activities. These advantages may not be apparent in patients with extreme obesity.

Figure 2; Very long Roux-en-Y Gastric Bypass



The Operation of Laparoscopic Adjustable Gastric Banding (Lap-Band®)



The Lap-Band® procedure is a restrictive procedure that involves placing a band around the junction of the esophagus (food pipe) and stomach. This band is connected to a reservoir placed under your skin that will be used to adjust the band.

Inflating the band constricts the area where food passes and therefore restricts the amount of ingested food.

Weight loss from this procedure is a result of reducing in the amount of food you can eat at any given time. Since all food passes through the stomach, this operation does not cause malabsorption, nevertheless, vitamins and nutritional supplements may still be needed.

Multiple adjustments of the band may be done every four - eight weeks in the office as needed. Although many patients lose weight, some or all of the lost weight can be regained by eating soft foods that are high in carbohydrates and fat (junk food, soda, ice cream, etc...)

For more information on the Lap-Band® system you can visit www.lapband.com.

Insurance Information and Pre-authorization for Weight Loss Surgery



A request for preauthorization for surgery will be filed with your insurance company after you have met with the surgical team.

Most insurance companies will pay for weight loss surgery if it is a covered benefit of your policy and is medically necessary. It is strongly recommended that you check with your insurance company to ensure that weight loss surgery is a covered benefit on your policy.

Most insurance companies now require at least six consecutive months of physician supervised weight loss history as part of the requirement to qualify for weight loss surgery. The insurance companies are very specific concerning the information they want to see in your records. The following is an example of what they are looking for:

2/20/08: Weight Management Appointment: Susie Jones came into the office to discuss her obesity. We discussed various weight loss methods and we have decided to try a 1,200 calorie per day diet. She will keep a journal of what she eats and attempt to increase her exercise level. Her weight today was 275 pounds. She will return in one month for follow-up.

3/21/08: Weight Management Appointment: Ms. Jones returned today for a follow-up appointment. We discussed her progress and she stated she was having difficulty staying on the 1,200 calorie diet. She stated she is unable to exercise due to the pain in her legs and lower back. Her weight today was 276 pounds. She agreed to try harder to adhere to the diet during the next four weeks. She will return in one month for follow-up. If she is still having difficulty we will explore other options.

This documentation MUST continue for at least six consecutive months. Your primary care physician may keep you on the same program for the entire six (6) months or can try multiple methods as long as it is clearly documented with a date, weight, type of diet program and a physician signature.

You may not combine a weight management appointment with any other type of office visit (i.e., you see your PCP for a cold/sinus infection and decide to discuss your obesity with him/her at that time).

Your surgeon can provide information about monthly weight loss classes and clinics that will help you meet the requirements of a "physician supervised" program and will help you prepare for surgery at the same time. More information about these classes will be provided during the New Patient Orientation session.

MEDICARE will not pre-certify weight loss surgery. Therefore, we must do everything possible prior to your surgery to ensure that your claim will not be denied. Medicare has been reimbursing surgery ONLY when a diagnosis of sleep apnea with use of CPAP or BiPAP treatment has been medically documented. Medicare also requires multiple six-month attempts (usually 3) at a medically-supervised diet.

We will work with you to ensure your surgery will be covered by your insurance company and to make sure your claims are not denied.

Scheduling a Date for Surgery:

A surgery date will be scheduled when we receive written authorization from your insurance company to do your operation. After your appointment with the surgeon and surgery team your medical records will be sent to our Pre-Certification Department to be processed and forwarded, by mail or fax to your insurance company. It may take two - ten weeks from the time your records are received by your insurance company for a determination to be made. Once we have received written authorization to do your surgery, a representative from our office will contact you to schedule your surgery date.

The Night Before your Surgery

On the night before your surgery, you cannot eat or drink anything after midnight with the exception of medications with sips of water. Typically the only medications that you should NOT take on the morning of your surgery are diabetes medications (pills or shots) or water pills (such as Lasix). Make sure you discuss your medications during your preparatory visit one - two weeks before surgery and with your primary care physician.

The Morning of Surgery

The morning of your operation, you will be greeted by your anesthesiologist in the surgical holding area and asked some basic questions. He/she will then do a basic exam, listen to your heart and lungs, and look into the back of your throat. An IV will be placed in your arm or hand so that antibiotics and anti-anxiety medications can be given.

What's Different About Weight Loss Surgery From an Anesthesia Point of View?

Blood pressure measurement may be difficult in some obese patients due to limitations in the size of available blood pressure cuffs. On occasion, it is necessary to place a small plastic tube, similar to an IV, in the artery of the wrist to aid in blood pressure measurement. This is usually done after you're asleep and is a very safe procedure.

All patients undergoing surgery have a breathing tube placed in their windpipe to aid in respiration during the operation. The majority of patients have this placed after they are asleep. Some patients, however, based on the anesthesiologist's evaluation, may need to have the tube placed while still awake. This is done because the anesthesiologist has determined that it would be difficult, impossible, or unsafe to place the breathing tube while asleep. If you are one of the few patients that will require an awake intubation, the procedure will be explained to you in detail, and then you will receive medication to sedate you and numb your mouth, tongue, and throat. Although the procedure may be uncomfortable and give you the sensation that you want to cough, it is necessary for your safety.

Rarely, it can be very difficult to place an IV in an obese patient, and you may require a central line. A central line is an IV that is placed into one of the large veins in your neck, and is usually done after you are already asleep. If you are one of the few patients that require this, your anesthesiologist will explain the procedure on the morning of surgery.

After surgery, you will wake up in the operating room and be transported to the recovery room. You will have an abdominal binder in place and may be breathing oxygen through a small tube under your nose. The majority of patients are very comfortable when they arrive in the recovery room. Since many of you use CPAP/BiPAP machines when you sleep at night, we ask that you bring your device with you so you can use it in the recovery room.

In general, anesthesia for weight loss surgery is similar to that required for any other operation. Some patients, however, will require different monitoring or have their anesthesia delivered in slightly different ways as outlined above. Make use of your preoperative visit and ask the anesthesiologist any questions you might have, and again on the morning of surgery, take advantage of the time you have to ask questions before the operation.

Your Hospital Stay

Most patients stay in the hospital approximately three - five days after RYGB and one - two days after the Lap-Band®. You will be discharged when you are able to take enough liquids and nutrients by mouth to prevent dehydration, have no fever, and have adequate pain control with medication.

Depending on your medical condition before the operation, you may be placed in the intensive care unit after surgery to closely monitor your heart and lungs. When your condition stabilizes you will be transferred to a regular room.

Patients who use CPAP/BiPAP for sleep apnea must bring their machines with them to the hospital for use immediately after the operation.

One or two small tubes (drains) may be placed around the stomach pouch and the bypassed stomach to drain body fluids after the operation. These drains will come out from one port site on your side, and will be removed before leaving the hospital.

Pain control will be achieved initially through intravenous medications and later by pills or liquid pain medicine. It is important to take your pain medications to make yourself as comfortable as possible, which will aid in your recovery. You will be asked to get out of bed and walk the night after surgery.

Prior to discharge from the hospital you will need to make arrangements to have adult assistance at home. If you do not have an adult available to assist you, please let us know before you are discharged and we will make arrangements for home health care and/or admission to a rehabilitation center until you are able to care for yourself.

Medical grade stockings and/or compression devices will be placed on your legs whenever you are in bed to prevent formation of blood clots, and will be removed before you leave the hospital.

A dietician will counsel you on your nutritional needs while you are still in the hospital. An x-ray will be taken on the first day after surgery to ensure that your bypass or Lap-Band® is satisfactory. Upon favorable x-ray results you will be given clear liquids to drink. Initially you will be asked not to drink more than 1 ounce in 30 minutes.

Your first post-operative follow-up appointment will be scheduled for two - three weeks after discharge from the hospital. You will be given instructions where to call to make this appointment when you are discharged from the hospital. You will also need to see your primary care physician one - two weeks after hospital discharge so your medications can be adjusted if necessary.

You will meet with your surgeon and their staff on a routine basis for at least five years after your operation. For Gastric Bypass patients, after your first post-op visit, additional visits will be scheduled every three - six months for the first two years, or as needed. For Lap-Band® patients, the first post-op visit will be scheduled one month after Lap-Band® placement and then every 4 - 8 weeks until goal weight is reached.

Possible Complications of Gastric Bypass Surgery

As with all major operations that require general anesthesia, complications can arise. Although the chance of developing complications is low, complications may occur in 5 -10% of patients who undergo gastric bypass surgery. Major complications that may result in death, organ loss or further operations include, but are not limited to, pneumonia, blood clot in the lungs or in the legs, stroke, heart attack, bowel blockage, leakage from a hole in the bowel or where the stomach pouch is hooked-up to the intestine and abscess. Minor complications that may be inconsequential include wound infection, wound seroma, and bladder infection. Other complications may arise but are very rare. Please ask your doctor if you have further questions.

Possible Complications of Lap-Band



Major complications following the Lap-Band® procedure are rare (less than 1%) and include, but are not limited to, perforation of the stomach, band erosion into the stomach, band slippage, band malfunction and other complications associated with abdominal surgery, such as bleeding, infection, damage to other organs and death.

Diet after Weight Loss Surgery

GASTRIC BYPASS: It is important to follow this diet because it helps you lose weight and gives your body adequate nutrition. Since the stomach pouch created by the operation can not grind solid food, you must take liquids and pureed foods initially. When you start eating solid food you will have to chew very well. You will NOT be able to eat steak or chunks of meats if it is not chewed thoroughly.

Because the intestine is not made to handle food until it has been mixed with bile and acid from the bypassed stomach, avoid eating certain foods that are high in carbohydrates (especially liquid calories like ice cream or soda) after your gastric bypass. This will cause you to experience unpleasant side effects such as a rapid heartbeat, sweating, palpitations, abdominal pain and dizziness. These symptoms are referred to as “Dumping Syndrome” and are very unpleasant.

LAP-BAND®: Certain foods (meat, bagels, biscuits, etc.) may not be tolerated after surgery. Avoiding or limiting foods that contain added sugar, concentrated sweets and fat will aid in weight loss. Intolerance to food may indicate that the Band is too tight. As with gastric bypass, chewing food thoroughly is very important to avoid nausea and vomiting. Nausea and vomiting are not normal.

Dietary Guidelines for Patients after Gastric Bypass

(*also applicable for Lap-Band® patients)

1. Always think **protein first**. Consume protein at every meal and snack.
2. ***Eat slowly** (take small bites, chew very well); allow 30-60 minutes to eat each meal. Indications of **fullness** may include:
 - a feeling of pressure or fullness in the center of your abdomen just below the rib cage.
 - pain in your shoulder area or upper chest.
 - nausea.
3. ***Don't drink fluids while eating** (drink fluids at least 15-30 minutes before or after meals to prevent becoming too full).
4. ***Stop eating** - just *before* you feel full (don't try to wash food down with fluids).
5. ***Omit concentrated sweets:** (examples: sugar, honey, candy) desserts, regular sodas, canned nutritional supplements (only when advised) milk shakes, sweetened juice drinks or items with sugar listed on the label as one of the first three ingredients.
6. ***Omit high-fat foods** (such high-calorie items can prevent weight loss; examples: gravy, butter, fried foods, chips).
7. **Avoid foods with high-fiber** content during the first three months after surgery. (Examples: coconut, popcorn, membranes of oranges, grape fruits, skins or seeds of some fruits or vegetables, fibrous vegetables such as corn, skins of potatoes, celery). You may be able to slowly re-introduce some fibrous foods.
8. **Add new foods one at a time;** if you don't tolerate an item, wait about a week before trying it again.
9. ***Include skim or low-fat milk** to supplement your protein intake (try lactose-treated milk or fortified soy milk if you have intolerance to milk).
10. ***Avoid carbonated drinks.** If you must have, let carbonated drinks sit open for about an hour before you consume them to let them go 'flat' (decrease the carbonation).
11. ***Do not use a straw** - you may swallow air with the fluids.
12. ***If vomiting occurs,** you should stop eating for at least two hours, then restart again slowly with water and gradually increase to your usual stage of the diet.

- 13. *You may use spices.
- 14. ***Avoid alcohol**, it contains from 100-150 calories per drink. You will also feel lightheadedness with very small amounts.
- 15. **Supplementation or nutrition counseling** can assist in treatment for hair loss, skin problems, nausea, and food intolerance. Please see your bariatric dietitian specializing in weight loss surgery.
- 16. **Recommended follow up** after surgery with the bariatric dietitian is at three weeks, six weeks, and every four - eight weeks thereafter for the first year and every six months the following years.

(*also applicable for Lap-Band® patients)

Days 1 – 3 After Gastric Bypass Surgery – Clear Liquids

CLEAR LIQUID DIET WITHOUT SWEETS

DESCRIPTION: This diet consists of items that are clear and are liquid.

GUIDELINES: This surgery limits the amount and types of foods you can eat.

- Before you feel full, stop drinking fluids.
- Try to consume no less than 48 ounces of fluids daily.

AMOUNTS: One to two ounces every 30 minutes. Use 1 ounce medicine cups.

FOOD GROUP	ITEMS TO INCLUDE	ITEMS TO AVOID
*Fruit Juice	100% Juice: cran-apple/ cran-grape juice, apple juice, grape juice (Pulp free juices)	All other juices Fruit punch or fruit drinks
*Soup	Fat-free bouillon or broth	All other soups
*Unsweetened beverages	Water, decaffeinated beverages (coffee, tea or herbal teas), Gatorade, Crystal Light®, Sugar-free Kool-aid®	All others including carbonated beverages
*Miscellaneous	Sugar-free Jell-O® or gelatin, Sugar-free popsicles	Sugar

(*also applicable for Lap-Band® patients)

Days 4 – 14 After Gastric Bypass Surgery – Full Liquids

FULL LIQUID DIET WITHOUT SWEETS

DESCRIPTION: This liquid diet is used as a transition from clear liquids to a pureed diet.

GUIDELINES: Drink at least six small liquid feedings each day.

- Feedings include combinations of calories/proteins and other nutrients.
- Water or a non-caloric beverage between these feedings is recommended.
- Start using Whey Protein Powder Supplement in liquids. Combine one scoop in 8 ounces of liquid. Use this as two 4 ounce feedings.
- Consume no less than 48 ounces of fluids daily.
- Journal daily.

AMOUNTS: Each feeding should consist of 4 oz (1/2 cup) of a high protein, low fat beverage sipped slowly over 30-40 minutes. Take 5-10 minutes to drink each ounce.

*ENRICHED MILK - Enrich all the milk or soymilk you use. This helps to provide the protein you need for healing. Mix 1 cup of 1% or nonfat, lactose free 1% or nonfat, or fortified soymilk with 1/4 cup of whey protein isolate or nonfat milk powder. Mix well and refrigerate. *Use a hand blender to quickly and easily mix protein powders with liquids.*

FOOD GROUP	ITEMS TO INCLUDE	ITEMS TO AVOID
*Milk	Enriched nonfat/1% milk, enriched/fortified soy milk, plain or vanilla sugar-free yogurt (NO fruit, skins or seeds), sugar free pudding made with enriched nonfat milk	Milkshakes Eggnogs
*Cereal	Strained and thinned cream of wheat or rice cereal made with enriched milk or soy milk; Strained or thinned baby cereals	Sweetened/flavored hot cereals
*Juices *Soups	100% fruit juices, 100% vegetable juices Broth; Strained or blended vegetable or low fat cream soups	Fruit "punch" or fruit drinks Soups containing gaseous/high fiber vegetables or whole pieces of food
*Misc	Spices as tolerated; Calorie-free beverages; Sugar-free Jell-O®, sugar-free popsicles; Sugar-free, low fat yogurt (without pieces of fruit); Sugar-free cocoa (made with enriched nonfat milk).	Sugar/honey/syrup carbonated beverages Regular Jell-O®, Ice cream/sherbet, regular pudding Liquid nutritional supplements

(*also applicable for Lap-Band® patients)

Days 15 – 45 After Gastric Bypass Surgery – PUREED DIET

PUREED DIET WITHOUT SWEETS

DESCRIPTION: This diet is used as a transition from liquids to solid foods.

A food processor or blender can be used to achieve an “applesauce” consistency that is easy to digest.

GUIDELINES:

- *Eat only between 8 AM and 9 PM.
- Eat six “mini meals” daily.
- *Drink liquids between mini-meals.
- Keep liquids and solids 15 to 30 minutes apart.
- *Consume no less than 48 ounces of fluids daily.
- Continue using whey protein powder supplement.
- *Before you feel full, stop drinking fluids.
- Always choose a protein source at each mini meal.
- Journal daily.

AMOUNTS: Eat 2-4 ounces (4-8 TBSP) at each mini-meal. Take 30-60 minutes to finish your mini meal. Take 5-10 minutes to eat/drink each ounce.

(*also applicable for Lap-Band® patients)

FOOD GROUP	ITEMS TO INCLUDE	ITEMS TO AVOID
*Milk, Yogurt, Cheese HIGH PROTEIN	Enriched nonfat milk, enriched/fortified soy milk, sugar-free yogurt (no fruit pieces), cottage cheese (1% or nonfat), low fat (fat free) soft cheese, sugar-free pudding or cocoa made from enriched milk	Milkshakes Eggnogs
*Meat, Poultry, Fish, Eggs HIGH PROTEIN	PUREED: baby food meats, water-packed tuna, poultry, ham, casseroles, plain/cheese omelets, fish, scrambled or soft cooked egg or egg substitute	Raw eggs, nuts, all others not listed under foods included.
*Strained cereal, Mashed potato	Cooked/hot cereals, mashed potatoes, pureed squash, pureed casseroles	Whole breads, dry cereals, whole rice and pasta
*Vegetables <i>*Optional: Butter Bud® or Molly McButter®</i>	All pureed vegetables* 100% vegetable juices Baby food vegetables	Whole vegetables (cooked or raw)
*Fruit	All 100% fruit juice, pureed fruit, smooth "natural" applesauce, ripe bananas or baby food fruit	Whole fruit (fresh or canned)
*Fats and Oils	Light margarine, low fat mayonnaise, cooking spray or spray "butter"	Bacon, cream, butter or high fat gravy
*Soup	Strained cream soup or broth	N/A
*Miscellaneous	Sugar free catsup, salt, spices in moderation, decaffeinated tea or coffee	Sugar/honey/syrup/jelly candy/desserts nuts, seeds or coconut

(*also applicable for Lap-Band® patients)

Pureed Diet Preparation*

1. Cut all foods into three-fourths-inch pieces or smaller, if necessary.
2. Place a small amount of liquid such as fruit juice, liquid from the cooked vegetables or milk in the blender. Place liquids in the blender before solid pieces of food to prevent overloading the blender. Begin with about one-half cup of liquid for every cup of solids.
3. Add small pieces of the food to be blended. Fill the container to about one-fourth or one-half of total capacity.
4. Place the cover firmly on the blender before starting the motor and rest your hand on the cover while operating the blender.
5. Blend the foods for about two seconds; then check the consistency. By switching the blender on and off at two-second intervals, you can check the food as it is reduced to the consistency desired. If the mixture is too thick, add more liquid gradually and continue to blend. Food may be strained through a wire mesh strainer to eliminate particles. Remember, the longer foods are processed, the more even-textured they become.

Days 45 – 90 After Gastric Bypass Surgery – SOFT STAGE

GRADUALLY ADD SOFT FOODS:

DESCRIPTION: This is not a diet, consider it behavioral and dietary lifestyle changes that need to be followed for the rest of your life.

GUIDELINES:

- Low fat, no sugar.
- Eat 6 small meals per day, 4 - 6 oz per meal.
- Add new foods one at a time.
- If you don't tolerate an item, wait about a week before trying it again.
- If you have continued nausea or stomach flu, go back to the clear liquid diet until you improve.
- Avoid foods with a high-fiber content like coconut, popcorn, the pulp or membranes of citrus.

(*also applicable for Lap-Band® patients)

- Also avoid fibrous vegetables such as corn and celery. Remove the skin of vegetables like potato.
- Examples of soft foods: canned fruits, well-cooked vegetable, soft scrambled eggs, baked fish, crackers, toasted bread, smooth natural peanut butter.
- Poultry and meat should be ground. Most individuals do not tolerate MEAT even if it is ground. Remember to chew very well. Use your mouth to do the work of your stomach, chew your food until it forms a paste or “applesauce” consistency before swallowing.
- Continue to journal your intake.
- You’ll need 48 to 64 ounces of liquids per day to avoid dehydration.
- Drink liquids between meals.
- You may stop whey protein supplement when you are able to consume at least 60 grams of protein from food per day.

Day 90 and Beyond After Gastric Bypass Surgery – REGULAR DIET

GRADUALLY ADD REGULAR FOODS:

- Eat 4 - 6 small meals per day.
- Each meal should not exceed 8 ounces. This will include salads, crunchy fruits/vegetables and whole grain crackers/cereals.
- Remember to add one new food at a time and in small quantities.
- Chew very well.
- Drink your liquids separately.
- Journal daily.

Contact your dietitian if you are unable to tolerate intake as scheduled above.

REMINDERS:

- Even though your staple line is probably healed, it is still possible to weaken it or over-stretch your new stomach by not being careful about what and how you eat. Continue to eat and or drink slowly and restrict portion sizes.
- Maintain a food, protein and fluid record to help you to monitor your intake.
- If food intolerances occur, eliminate the food for 1 - 2 weeks, then try again.
- Maintain a regular exercise program of 30 minutes daily.
- Take the recommended dietary supplements.

VITAMIN & MINERAL SUPPLEMENTS FOR GASTRIC BYPASS

WHY DO I NEED TO TAKE SUPPLEMENTS?

After gastric bypass surgery, the body will not be able to absorb, use, or take in enough nutrients to maintain good health unless supplements are used. The procedure will reduce your stomach size so that very little food can be eaten at once. Additionally, the normal "mixing" that occurs in the stomach is reduced which reduces your absorption of nutrients. The other reason supplements are needed is because the first part of the small intestine that normally absorbs certain nutrients is no longer being used after the gastric bypass procedure.

LIFELONG SUPPLEMENTS TO BE TAKEN DAILY

MULTIPLE VITAMIN WITH OR WITHOUT IRON

- **First three months after surgery:**

- Liquid or chewable multiple-vitamin with or without iron that provides 100% of the Recommended Daily Allowances (RDA).

- **After three months:**

- If desired, you may switch to a multi with iron in a capsule.

Based on the National Academies 2002 guidelines, there were specific upper limits designed to protect consumers from adverse affects from excessive consumption of supplements.

- Avoid Vitamin A "palmitate form" with greater than 3,000 IU (beta-carotene form of Vitamin A is acceptable).
- Best Iron form is "Ferronyl® Carbonate", "Gluconate" or "Glycinate"
- Avoid Folic acid > 200% RDA if B12 deficiency noted.
- Avoid supplements > 800% of any Vitamin C, D, E, B6, Niacin which may be listed on the right hand side of the Supplement Fact labels. Example: Vitamin C 200mg is excessive and may cause unnecessary gastrointestinal distress.

VITAMIN B12

A deficiency can occur because the new smaller stomach may not be able to produce enough stomach acid and also because of a lack of "intrinsic factor", which is needed to absorb B12.

- **First three months after surgery:**
 - 1,000mcg injection once per month.
- **After three months:**
 - Take 500 - 1,000mcg "sub-lingual" (under the tongue) B12 supplements each day or continue monthly shots.
 - Use the most absorbable form of B12, "Methylcobalamin".

CALCIUM

A deficiency of calcium can occur because the part of the intestines which normally absorb calcium has been bypassed and because less stomach acid causes less calcium to be released from food.

- **First three months after surgery:**
 - Use a liquid or chewable calcium only.
 - Take 500mg **three times per day** (1,500mg per day)
 - Use only calcium-citrate based products. (not calcium carbonate)
- **After three months:**
 - You can switch to a calcium-citrate + D + magnesium in a capsule.

Fourth Month After Gastric Bypass Surgery and Beyond

1. Change to one adult multivitamin/mineral supplement with iron daily.
2. You may continue to take one sublingual 500 mcg vitamin B12 tablet by mouth daily or continue to receive monthly B12 injections.
3. Must continue to take the liquid, chewable or tablet (dissolved) or powdered calcium citrate twice daily.
4. Women who are still menstruating may need to start taking iron supplementation with 500 mcg of Vitamin C on a daily basis.

LAP-BAND® NUTRITION GUIDELINES

The first year after surgery is a critical time that must be dedicated to changing old behavior and forming new, lifelong habits that will control your weight. The Lap-Band® is a tool to help you modify your eating habits, it is your responsibility to use it appropriately. In a survey** completed by 100 people who have had gastric bypass surgery during the past 20 years, certain changes were more likely to be associated with long-term success. These changes include:

EATING - Eat three well-balanced meals and two snacks per day.

DRINKING - Drink water rather than juice, carbonated, sweetened, caffeinated and alcoholic beverages.

VITAMIN SUPPLEMENTS - Take daily multivitamin, calcium, and any other supplement as recommended.

SLEEPING - Sleep an average of at least 7 hours each night.

EXERCISE - Exercise at least four times a week for 40 minutes or more.

PERSONAL RESPONSIBILITY - Take personal responsibility for staying in control. Monitor weight weekly. Monitor intake to control weight.

***SUCCESS HABITS OF LONG-TERM GASTRIC BYPASS PATIENTS; Colleen Cook; Charles Edwards, MD; Obesity Surgery.9.1999*

What to Eat After Your Lap-Band is placed

Lap-Band surgery can help promote weight loss by making it difficult to eat too much food at one time and by causing a feeling of fullness after very small meals. However, surgery itself will not lead to weight loss. The way you eat and your exercise habits after surgery must be permanently changed. These guidelines will provide you with information to help you know what and how to eat to maximize your weight loss.

- 1. Always eat or drink very slowly.** Meals should be paced to last about 20 - 30 minutes even when the amount is very small. Eating too quickly may cause nausea and vomiting.
- 2. Chew food thoroughly.** All food should be chewed to a liquid consistency while in the mouth. Food that is not thoroughly chewed can cause nausea, vomiting, or may cause blockages in your stomach outlet. Chew each bite at least 15-20 times.
- 3. Eat foods or beverages only in the amounts suggested.** Eating larger amounts may cause vomiting, weight gain, or stretching of the pouch.
- 4. Do not drink liquids with meals. Avoid beverages for 1 hour before or 15 - 30 minutes after every meal.** This may overload the stomach causing nausea and vomiting, or stretching of the pouch. Avoid carbonated beverages.
- 5. Drink plenty of fluids between meals.** Without adequate fluids, the body will become dehydrated. Additionally, waste products which result from losing body fat must be flushed from the body. Aim for at least 6-8 cups (64 oz) of water per day. Only use calorie-free items such as water. Tea or coffee should be decaffeinated, if used (no sugar or cream).
- 6. Avoid foods that contain a lot of sugar.** High sugar foods include puddings, ice cream, cakes, pies, cookies, soda, fruit juice, and milkshakes. Sugary beverages or soft sugary foods will slip through the band and increase the number of calories you consume. These extra calories can prevent and or slow down weight loss.
- 7. Note foods that are not tolerated.** Many people cannot tolerate red meat or high-fiber foods after surgery. Certain foods can cause stomach discomfort, nausea or vomiting. If a food is not tolerated, eliminate it and try it again in a small amount a week or two later. Try only one new food at a time.
- 8. Take the vitamin and mineral supplements prescribed.**
- 9. Diet tolerance will vary each time the band is filled.** Return to **full liquids** for a day or two after each fill. In a couple of days you should be able to tolerate foods of a **pureed consistency**. The length of time you will need to stay on pureed foods will vary from a few days to a few weeks.
- 10. Exercise** at least 30 - 40 minutes per day.
- 11. Make regular appointments** with the dietitian for after surgery nutrition follow-ups.

Stage 1/Days 1 -3: CLEAR LIQUIDS



Foods Allowed: One to two fluid ounces (up to 1/4 cup) every 30 minutes: regular broth, water, 100% fruit juice (clear juices only: apple, grape, or cranberry), Gatorade, melted popsicles, regular gelatin (Jell-o®). Use a medicine cup or a shot glass showing measures to measure out the proper amount of liquid.

Goal: At least 32 ounces (4 cups) daily

Reminders:

- Stop sipping as soon as you feel full. **Never** force yourself to finish.
- If you choose to drink ginger ale, make sure it is sugar-free and “flat”. Carbonated beverages may cause stomach discomfort. If you drink soda, decarbonate the soda by letting it sit open for at least one hour prior to drinking.
- Once you reach your fluid goal, your intravenous (IV) fluid may be discontinued.

Stage 2/Days 4-14: FULL LIQUIDS



Start: Day 4 after surgery and briefly after band fills.

Fluid Goal: At least 48 oz (6 cups) daily.

Protein Goal: At least 60 grams of protein per day. Track your protein grams on the food record provided.

Supplements: Take one adult liquid or chewable multivitamin TWICE each day. Also take 500 mg of liquid or chewable calcium citrate THREE times per day.

Foods Allowed: Six high-protein/low-fat liquid meals (4 fl oz per meal) sipped slowly over a 20 - 30 minute time span (have one beverage about every 3 hours) Water should be taken between meals (aim for 4 - 8 oz between each liquid mini-meal.)

Reminders: Record your food, protein and fluid intake.

ENRICHED MILK - Enrich all the milk, rice, or soymilk you use with protein powder. This will help to provide the protein you will need for healing. A hand-blender can also be used to quickly and easily mix protein-powder into your beverages or other liquids. TO 1 QUART of lactose-free non-fat milk or fortified soy/rice milk: Add 1 cup of whey protein powder (preferred), soy protein isolate powder or nonfat milk powder. Mix well & refrigerate. TO 1 CUP of lactose-free non-fat milk or fortified soy/rice milk: Add 1/4 cup of whey, soy protein isolate or nonfat milk powder. Mix well & refrigerate.

FOOD GROUP	ITEMS TO INCLUDE	ITEMS TO AVOID
Milk	Enriched non-fat milk, enriched/fortified soy/rice milk, low-fat yogurt (NO fruit, skins, or seeds), sugar-free pudding made with enriched nonfat milk	Milkshakes Eggnogs
Cereal	Strained & thinned cream of wheat or rice cereal made with enriched milk, soy, or rice milk. Strained baby cereals.	Sweetened/flavored hot cereals
Juices	100% Fruit juices, 100% vegetable juices (V-8®)	Fruit "punch" or fruit "drinks"
Soups	Broth. Strained or blended vegetable or low-fat cream soups made with enriched milk	Soups containing whole pieces of food
Miscellaneous	Spices as tolerated, calorie-free beverages sugar-free Jello®, sugar-free popsicles sugar-free, low fat yogurt (without pieces of fruit), sugar-free cocoa (made with enriched non-fat milk)	Sugar/honey/syrup, carbonated beverages, regular Jell-O®, ice cream/sherbet, regular pudding, liquid nutritional supplements

STAGE 3/Days 15-30: PUREED/SOFT FOODS



Start: Days 15 - 30

Duration: 2 weeks and for short periods after fills.

Foods allowed: 4 ounces (1/2 cup) soft or pureed foods at each of your six "mini meals" per day (3 meals and 3 between meal snacks).

Fluid goal: At least 48 ounces (6 cups) per day.

Protein goal: At least _____ grams per day. Use the protein powder in beverages if needed to meet your goal.

Reminders:

- Eat slowly.
- Stop eating if full. If you cannot eat the entire amount within 20-30 minutes, put it aside. Try eating it an hour or two later. **Never force the food or beverage; you might stretch your stomach or cause nausea and vomiting.**
- Do not drink any beverages during meals.
- Weigh the food on a scale after it has been cooked to make sure that you are getting the right amount of protein. Protein is needed for wound healing.

- Never chew gum. If swallowed, it can block your outlet.
- Keep a daily food diary.
- Notify your surgeon and dietitian of any problems.
- Make sure that the food is as moist as possible. Moisten food with broth, skim milk, lemon juice, tomato juice, plain tomato sauce, soy sauce, light mayonnaise, fat-free salad dressing, or vinegar.
- Continue taking your daily vitamins.

INCLUDE HIGH PROTEIN PUREED ITEM AT EACH MEAL & SNACK.

FOOD GROUP	ITEMS TO INCLUDE	ITEMS TO AVOID
Milk, Yogurt, Cheese HIGH PROTEIN	Enriched non-fat milk, enriched/fortified soy/ rice milk, low fat yogurt: no fruit pieces, cottage cheese (1% or non-fat), low-fat cheese, sugar-free pudding or cocoa made from enriched milk	Milkshakes, eggnogs
Meat, Poultry, Fish, Eggs HIGH PROTEIN	PUREED: Baby food meats, water-packed tuna, poultry, ham, plain/cheese omelets, fish. Beef or pork only IF tolerated. Scrambled or soft cooked egg or egg substitute	Raw eggs, nuts, all others not listed under food included.
Bread, cereal, rice, pasta, potato	Pureed casseroles, cooked cereals, pureed breads, rice or pastas, mashed potatoes	Whole breads, dry cereals, whole rice and pasta
Vegetables <i>*Optional: Butter Buc® or Molly McButter® sprinkles</i>	All pureed vegetables*, 100% vegetable juices, baby food vegetables	Whole vegetables
Fruit	All 100% fruit juice, pureed fruit, smooth "natural" applesauce, ripe bananas or baby food fruit	Whole fruit (raw or cooked),
Fats and Oils	Light margarine or mayonnaise, cooking	Bacon spray or spray "butter"
Soup	Strained cream soup or broth	
Miscellaneous	Catsup, salt & spices in moderation, decaffeinated coffee or tea	Sugar, honey, syrup, jelly candy, desserts, nuts, seeds, or coconut

How to Puree Foods

USE A BLENDER TO BLEND ITEMS TO AN "APPLESAUCE" CONSISTENCY

- 1.** Place a small amount of liquid in the blender. Liquids which can be used include: broth, enriched milks, water, fat-free gravy, fruit juice, or tomato/V-8® juice. Place liquids in the blender before solids. Begin with about one-half cup of liquid for every cup of solids.
- 2.** Fill the blender to 1/4 - 1/2 of total capacity with 3/4 - inch pieces of food.
- 3.** Place the cover firmly on the blender before starting the motor and rest your hand on the cover while operating the blender.
- 4.** Blend the foods for about two seconds, then check the consistency. By switching the blender on and off at two-second intervals, you can check the food as it is reduced to the consistency desired. If the mixture is too thick, add more liquid gradually and continue to blend.
- 5.** Most ice cube trays hold about 1 oz per cube & work well for storing pureed food portions. After cubes have frozen, empty into storage containers & seal.
- 6.** Your goal is to eat at least _____ grams of protein per day. Limit lower protein foods until you are able to meet your protein goal. Select your protein from the following chart. Record the grams of protein that you eat every day on your food record.

PROTEIN CONTENT OF PUREED AND SOFT FOODS

FOOD	PORTION SIZE	PROTEIN GRAMS
Milk, Skim or 1%	8 oz	8
Yogurt (low sugar, low fat, no chunky fruit)	4 oz	5
Tofu, extra firm	3 oz or 1/5 block	12
1% Cottage cheese	1/3 cup	10
Fat-free or low-fat ricotta cheese	1/3 cup	10
Low-fat cheese (less than 3 grams fat per ounce)	1 oz	5-7
Refried beans with no added fat	1/3 cup	5
Baby food meats, all types	2 1/2 oz jar	10
Split pea soup	6 oz	7
Pureed soups		varies
Mashed potato (thinned)	1/3 cup	1
Cream of Wheat	1/3 cup	1
Unsweetened applesauce/ pureed fruit	1/3 cup	0

Once you are easily tolerating the above foods, you can begin to try the items below which have a firmer texture. Pushing your diet too fast can result in abdominal pain, nausea and vomiting.

FOOD	PORTION SIZE	PROTEIN GRAMS
Fish (sole, haddock, tuna, salmon)	1 oz	7
Imitation seafood	2 oz	7
Cooked poultry, pureed with 2 tbl broth	2 oz	14
Chicken, canned in water	2 oz	11
Egg substitute	1/3 cup	7
Egg, scrambled or hard-boiled	1 whole	6
Crab (canned)	2 oz	13
Shrimp (canned)	2 oz	13
Soy proteins		varies
Tempeh	1/4 cup	8

STAGE 4/Days 31+: LOW-FAT SOLID FOOD

Start: Usually one month after surgery.

Purpose: For long-term good health and successful weight.

Foods Allowed:

- Gradual introduction of solid foods.
- Eat 3 small meals per day
- Have 2 or 3 small snacks per day
- High-fat, high-sugar foods are not allowed.
- Individuals may not tolerate specific foods. Common foods not tolerated include: red meat, bread (toast and crackers are better tolerated) chicken or turkey that is dry or tough, raw fruits and vegetables, especially peels and membranes.

SAMPLE MENU

FOOD OR BEVERAGE	PROTEIN (GM)	CALORIES
Breakfast:		
1 slice whole-wheat toast	3	80
1 ounce melted low-fat cheese	7	70
Snack:		
8 ounces skim milk	8	90
Lunch:		
one-3 ounce can tuna	15	70
1 tbl. light mayonnaise	0	45
5 saltine crackers	2	78
1/2 banana	1	60
Snack:		
1 c. fat-free, sugar-free yogurt	101	20
Dinner:		
3 oz chicken breast, no skin	21	160
1/2 cup green beans	1	22
1/2 cup brown rice	3	190
1 tsp. margarine	0	45
Snack:		
6 ounces vegetable juice	2	40
Total	73	1030

Fluid Goal: Up to 64 ounces (8 cups) of calorie-free beverages per day.

VITAMIN & MINERAL SUPPLEMENTS FOR The Lap-Band®

WHY DO I NEED TO TAKE SUPPLEMENTS?

After your Lap-Band® is placed, you will only be able to take in small amounts of food at one time. Because of this, you may not be able to take in enough vitamins & minerals to maintain good health unless supplements are used.

LIFELONG SUPPLEMENTS TO BE TAKEN DAILY

MULTIPLE VITAMIN WITH IRON

- **First month after surgery:** Liquid or chewable only.
 - One chewable or one tablespoon of liquid TWICE each day.
 - Different products have different doses to equal 100% daily needs.
 - Be careful with Vitamin A (palmitate form) with more than 3,000 IU). Beta-Carotene form of Vit. A is safer and no warnings for upper limit (example 200% Vit. A from Betacarotene).
 - Best absorbed WITH food (at mealtimes).
 - Example: Centrum Liquid or Centrum chewable multiple vitamin.
- **After 1 month:**
 - Liquid or chewable multiple-vitamin with iron, ONE each day.
 - Tablets are NOT recommended. Capsules or softgels are acceptable.
 - Example: "TwinLab Daily One Caps® w/ Iron"

CALCIUM

- **First month after surgery:**
 - Use a **liquid or chewable only**. (See attached list for examples)
 - Take 500 mg THREE TIMES PER DAY (1,500 mg per day)
 - Use only calcium-citrate based products. (not calcium carbonate)
 - Take between your meals (separate from your multiple vitamin)
 - You can remove a supplement of 500mg if you are able to consume 8oz milk/yogurt or another calcium rich food source.
- **After one month:**
 - Take 500 mg TWO TIMES PER DAY (1,000 mg per day)
 - You can switch to a calcium-citrate + D in a capsule or softgel
 - Use only calcium citrate (not carbonate).

Required Post-Operative Lab Tests for Nutrition Status

Lab tests should be done beginning 3 months post-op and every year thereafter. These tests tell your dietitian whether you are getting enough B-vitamins, calcium, iron, & protein. If any of your results are abnormal, this should be reported to your dietitian so your dietary supplements can be reviewed and adjusted if needed.

Ask your PCP for:

- CBC (complete blood count)
- SMAC + albumin (general blood chemistry/protein)
- Ferritin (stored iron)
- Folate & B-12 (two important B-vitamins)

HOW DO YOU KNOW IF YOU ARE GETTING ENOUGH CALCIUM?

Certain urine tests can be done which can show if excess bone is being broken down. Ask your physician about these tests.

LIQUID & CHEWABLE CALCIUM PRODUCTS

Remember:

- Your body can not absorb more than 500 mg of calcium at one time.
- Take 500 mg 3 times per day to get 1,500 mg of calcium daily.
- Calcium citrate can be taken anytime, with or without food.
- Do not use calcium carbonate products. Your smaller stomach will probably not make enough acid to absorb this form of calcium. Additionally, it must be taken with food.

Weight Loss After Surgery

GASTRIC BYPASS: Weight loss will start shortly after surgery. Rapid weight loss occurs in the first few months and slows down thereafter. Some people will continue to lose weight up to two years after surgery, but in most instances your weight will stabilize after 12-18 months. Individual results will vary, because patients have different body characteristics and exercise variable amounts.

Weight gain or failure to lose weight after surgery will prompt some tests and an x-ray of the stomach. In most instances where the gastric bypass is intact, weight gain invariably results from over-eating the capacity of the gastric pouch (using liquid calories). Since there is no operation to correct this, it is important that you follow diet recommendations and seek help from your dietician and psychiatrist for behavior modification. Many individuals may feel stress and anxiety after the operation because they have to change their eating habits, re-learn hunger and learn feeling full.

LAP-BAND®: Since the Lap-Band® will not be adjusted until four - six weeks after surgery, you will not have any substantial weight loss during this period. In contrast to gastric bypass, Lap-Band® patients will experience a slower pace of weight loss and may take two years or more to reach maximal weight loss.

Birth Control And Pregnancy

We strongly advise women in the child-bearing years to use a very effective form of birth control during the first 24 months after surgery. Pregnancy is not advisable during periods of active weight loss because it puts another large demand on the body's nutritional and metabolic supplies. This precaution is important in order to avoid damage to the baby and the mother.

Successful pregnancies are possible after weight loss surgery. Consult with your obstetrician prior to conceiving to be absolutely sure that your body is ready.

Long-Term Follow-Up

FOLLOW-UP IS VERY IMPORTANT. You will undergo a major operation that changes the way you eat and the way your stomach and intestine function. Although we understand many of these changes that occur in the first few years after surgery, we do not know the life long effects of weight loss on your nutrition and body systems. We are concerned that there will be some nutritional deficiencies that occur long-term and if not checked or treated may result in further problems. You will need periodic blood counts, vitamin B12, folate levels and iron levels. Initially we will obtain these tests every three - six months or as needed and then every one - two years or as needed.

Follow-up is also important because of the effects of weight loss. We know that one-third of patients may develop a hernia in the abdominal incision that may require surgery. Some patients will develop loose skin around the waist and arms that may need to be removed. In addition follow-up is important to stay in touch with your caregivers and support groups. Initially you will be seen for follow-up in our center for the first two -three years in addition to keeping your regular appointments with your primary care doctor. After that period of time follow-up by phone and by periodic surveys by mail, e-mail or web-based programs may be utilized in addition to your regular office visits.

Why Have Weight Loss Surgery at Tampa General Hospital?



Tampa General Hospital is a leading referral center for weight loss surgery. In January 2005 Tampa General Hospital was awarded certification in eleven areas by the Joint Commission – the nation's leading independent, not-for-profit organization responsible for evaluating the quality and safety of health care. The Bariatric Services program was among the areas certified and is the first bariatric program in the nation to receive this accreditation. Our program has been a leader in Laparoscopic Gastric Bypass in the Tampa Bay area since 1998 and offers both Gastric Bypass and Lap-Band procedures. We are the only interdisciplinary and

comprehensive program in the area and our physicians and support staff are the most experienced. We continue to employ state-of-the-art innovations in the care of obese patients before and after weight loss surgery. As a result our program has gained regional and national recognition for excellence in patient care.

Our Commitment To You

We will provide you with the highest level of care possible during your evaluation and treatment. We will help you in any way possible to achieve your weight loss goals and maintain your health.

We realize that undergoing such an operation to lose weight is one of the biggest decisions that you will make in your life; it will be a decision that will drastically alter your lifestyle and the way you eat. Since this is a big investment in your health, we want to be absolutely sure that you are committed to proceeding with the proposed treatment plan and follow-up. We will ask you to keep us informed of your health and your location. We will also ask you to provide us with names and addresses of individuals who know where to find you. We will, of course, obtain your permission to contact them if you do not return for your clinic visits and respect your privacy and the privacy of your medical records.

We encourage you to stay involved in support groups, either those based in the hospital or in your local community.

We will contact you periodically (by mail or e-mail from the Bariatric Surgery Registry) to complete a survey about your health and weight. We will use this information to continuously improve our results and treatment. This information and information collected from your medical record will be used without identifying you personally.

We will invite you to participate in clinical research. The goals and means of doing such clinical research will be fully explained to you. You will not be subjected to any clinical research without your written permission.

Cost



We are participants with all major insurance companies. However, if we are not a participant or provider with your insurance company or HMO, you will be responsible for paying the initial consultation fees and fees of subsequent visits at the time of each visit. You will be responsible for the co-pay for office visits and surgery as set by your insurance company if we are participants or providers for that company.

It is our policy to request written approval from your insurance company prior to scheduling your operation. This has become necessary in the current practice climate to protect the interests of our patients so they are not faced with the cost of the operation and subsequent care if their insurance company does not cover the operation. This process can be lengthy and may take up to two months to complete.

Please check with your insurance company regarding their policies of coverage and approval process for obesity surgery. Prior to scheduling your operation, you will be contacted by a clerk from the billing department to make arrangements for paying your co-pay. The surgery will not be scheduled unless such arrangements have been made. If you were denied coverage by your insurance company and want to pay for the surgery as an "out-of-pocket expense", we will arrange for you to review our fees and payment plans.

We do offer a self-pay discounted rate for those who do not have insurance or do not have weight loss surgery benefits.

Support Group



This group meets monthly to discuss issues pertinent to weight loss surgery. Psychotherapists, nutritionists and other special guest speakers provide valuable, up-to-date information relevant to your weight loss surgery. It also provides an opportunity for you to talk to others who have had weight loss surgery. We encourage you to attend these meetings with your spouse and other family members or friends, who are a part of your personal support system.

Frequently Asked Questions

The following are some of the most frequently asked questions about weight loss surgery and our program. You will have ample time at the New Patient Orientation to have any of these questions clarified and/or ask questions not covered here.

Q. HOW SOON CAN I GET MY INITIAL CONSULTATION?

A. The first step is to attend a 'New Patient Orientation' session. After the Orientation session you can attend a Weight Loss Surgery Support Group meeting that is normally held during the same evening.

Q. WHY DO I HAVE TO ATTEND THESE MEETINGS?

A. The New Patient Orientation will help you decide if this surgery is right for you. The Orientation is led by a member of our Bariatric Team who will ensure that all of your questions concerning pre-operative and post-operative requirements are answered. The Support Group meeting is run by volunteers who have had weight loss surgery. Attending this meeting gives you the opportunity to talk personally to people who have "been there-done that". They know first-hand the ups and downs of the weight loss surgery and will be able to share their experiences with you.

Q. WHAT IF I HAVE ALREADY ATTENDED MEETINGS LIKE THIS SOMEPLACE ELSE?

A. Every program is different; therefore, the best way to decide if our program is right for you is to attend New Patient Orientation and Support Group meetings.

Q. DOES IT COST ANYTHING TO ATTEND THESE MEETINGS? DO I NEED TO PRE-REGISTER? WHO SHOULD ATTEND THESE MEETINGS WITH ME?

A. There is NO fee to attend the Orientation or Support Group meetings. If you choose to attend the meetings at Tampa General Hospital, parking is available in the parking garage and attendees are responsible for parking fees. You do not need to pre-register for the meetings at the Hospital. We encourage you to bring your spouse, significant other, or an adult family member to these meetings.

Q. WILL MY INSURANCE PAY FOR THE WEIGHT LOSS SURGERY?

A. Yes, as long as it is a covered benefit of your policy and we can show that it is medically necessary.

Q. IS THE WEIGHT LOSS SURGERY DONE LAPAROSCOPICALLY?

A. Yes. When you meet with our surgical team they will discuss with you if you are a candidate for laparoscopic surgery.

Q. HOW LONG WILL I BE IN THE HOSPITAL?

A. Your hospital length of stay is estimated to last 3 - 5 days after Gastric Bypass and 1 - 2 days after Lap-Band®. Longer hospitalization may be necessary for treatment of complications.

Q. HOW LONG WILL I BE OUT OF WORK?

A. 4 - 6 weeks is the typically time of recovery from abdominal surgery. If you have the surgery done laparoscopically, your recovery time may be shorter. Type of work will also influence how soon you may return.

Q. WHAT IS THE RISK OF SURGERY?

A. Weight loss surgery is a major operation that can result in major complications, including death. A list of complications is included in the Information Booklet. You should discuss these complications with your doctor.

Q. HOW SUCCESSFUL IS THIS SURGERY?

A. The goal of weight loss surgery is to bring your weight down to a healthier weight and treat medical conditions associated with obesity. Following the dietary and exercise guidelines ensure the best chances for success.

Q. IS THE GALLBLADDER REMOVED DURING SURGERY? IF SO, WHY?

A. The gallbladder is removed because a majority of patients have developed gallstones as a consequence of long-term dieting. Those who do not have gallstones may develop stones with rapid weight loss after Gastric Bypass. Patients who undergo the Lap-Band® may not experience these problems; therefore we do not routinely remove their gallbladders at the time of surgery.

Q. IS IT TRUE THAT I WILL HAVE TO TAKE VITAMINS FOR THE REST OF MY LIFE?

A. Yes, you will need to take a daily vitamin with iron, extra calcium and vitamin B-12. Our dietitians will discuss this with you during the evaluation.

Q. WHAT ABOUT HAIR LOSS AFTER SURGERY?

A. Some patients experience thinning and/or hair loss after surgery. The dietitians have found several dietary supplements that may be effective in minimizing this condition.

Q. WHEN WILL I HAVE TO SEE THE DOCTOR AFTER SURGERY?

A. You will see the surgery team 2 - 3 weeks after your surgery, and then every 3 - 6 months, or earlier as needed.

Q. WHO CAN DO A TUMMY TUCK OR REMOVE EXCESS SKIN AFTER WEIGHT LOSS?

A. Once your weight loss has stabilized (1 - 2 years after surgery) we will refer you to a plastic surgeon to discuss the removal of excess skin.

Q. CAN I GET PREGNANT AFTER SURGERY?

A. Yes, you can. It is VERY important to wait at least two years after your surgery to become pregnant. You will need this time to adjust physically and emotionally to your weight loss before becoming pregnant.

Q. AFTER I HAVE COMPLETED ALL OF THE REQUIRED EVALUATIONS, HOW LONG DOES IT TAKE TO GET MY APPOINTMENT WITH THE SURGICAL TEAM AND HOW LONG AFTER THAT APPOINTMENT WILL MY SURGERY BE SCHEDULED.

A. Once you have completed all of your evaluations your records will be forwarded to your surgeon's office. Generally it will only take 1 - 2 weeks for you to be seen by your surgeon and the surgical team. Once that appointment has been completed we will file a request for authorization with your insurance company. It will take anywhere from 2 - 10 weeks to hear back from your insurance company.

Body Mass Quick Index

Height (feet)

	4'8"	4'9"	4'10"	4'11"	5'0"	5'1"	5'2"	5'3"	5'4"	5'5"	5'6"	5'7"	5'8"	5'9"	5'10"	5'11"	6'0"	6'1"	6'2"	6'3"	6'4"	6'5"	6'6"
200	45	43	42	41	39	38	37	36	34	33	32	31	30	30	29	28	27	26	26	25	24	24	23
205	46	44	43	42	40	39	38	36	35	34	33	32	31	30	29	28	27	26	26	25	24	24	23
210	47	46	44	43	41	40	39	37	36	35	34	33	32	31	30	29	28	27	26	26	25	24	24
215	48	47	45	44	42	41	39	38	37	36	35	34	33	32	31	30	29	28	27	26	26	25	24
220	49	48	46	45	43	42	40	39	38	37	36	35	34	33	32	31	30	29	28	28	27	26	25
225	51	49	47	46	44	43	41	40	39	38	36	35	34	33	32	31	31	30	29	28	27	27	26
230	52	50	48	47	45	44	42	41	40	38	37	36	35	34	33	32	31	30	29	28	27	27	27
235	53	51	49	48	46	45	43	42	40	39	38	37	36	35	34	33	32	31	30	29	28	27	27
240	54	52	50	49	47	45	44	43	41	40	39	38	37	36	35	34	33	32	31	30	29	28	28
245	55	53	51	50	48	46	45	44	42	41	40	38	37	36	35	34	33	32	31	30	29	28	28
250	56	54	52	51	49	47	46	44	43	42	40	39	38	37	36	35	34	33	32	31	31	30	29
255	57	55	53	52	50	48	47	45	44	43	41	40	39	38	37	36	35	34	33	32	31	30	29
260	58	56	54	53	51	49	48	46	45	43	42	41	40	39	37	36	35	34	33	33	32	31	30
265	60	58	56	54	52	50	49	47	46	44	43	42	40	39	38	37	36	35	34	33	32	32	31
270	61	59	57	55	53	51	50	48	46	45	44	42	41	40	39	38	37	36	35	34	33	32	31
275	62	60	58	56	54	52	50	49	47	46	45	43	42	41	40	38	37	36	35	34	34	33	32
280	63	61	59	57	55	53	51	50	48	47	46	44	43	41	40	39	38	37	36	35	34	33	32
285	64	62	60	58	56	54	52	51	49	48	46	45	43	42	41	40	39	38	37	36	35	34	33
290	65	63	61	59	57	55	53	52	50	48	47	46	44	43	42	41	39	38	37	36	35	34	34
295	66	64	62	60	58	56	54	52	51	49	48	46	45	44	42	41	40	39	38	37	36	35	34
300	67	65	63	61	59	57	55	53	52	50	49	47	46	44	43	42	41	39	38	37	36	35	34
305	69	66	64	62	60	58	56	54	52	51	49	48	47	45	44	43	41	40	39	38	37	36	35
310	70	67	65	63	61	59	57	55	53	52	50	49	47	46	45	43	42	41	40	39	38	37	36
315	71	68	66	64	62	60	58	56	54	53	51	49	48	47	45	44	43	42	41	39	38	37	37
320	72	69	67	65	63	61	59	57	55	53	52	50	49	47	46	45	44	42	41	40	39	38	37
325	73	71	68	66	64	62	60	58	56	54	53	51	50	48	47	45	44	43	42	41	40	39	38
330	74	72	69	67	65	63	61	59	57	55	53	52	50	49	47	46	45	44	42	41	40	39	38
335	75	73	70	68	66	63	61	60	58	56	54	53	51	50	48	47	46	44	43	42	41	40	39
340	76	74	71	69	67	64	62	60	59	57	55	53	52	50	48	47	46	45	44	43	42	41	40
345	78	75	72	70	68	65	63	61	59	58	56	54	53	51	50	48	47	46	44	43	42	41	40
350	79	76	73	71	69	66	64	62	60	58	57	55	53	52	50	49	48	46	45	44	43	42	41
355	80	77	74	72	70	67	65	63	61	59	57	56	54	53	51	50	48	47	46	44	43	42	41
360	81	78	75	73	71	68	66	64	62	60	58	57	55	53	52	50	49	48	46	45	44	43	42
365	82	79	76	74	71	69	67	65	63	61	59	57	56	54	53	51	50	48	47	46	45	44	43
370	83	80	78	75	72	70	68	66	64	62	60	58	56	55	53	52	50	49	48	46	45	44	43
375	84	81	79	76	73	71	69	67	65	63	61	59	57	56	54	52	51	50	48	47	46	45	44
380	85	82	80	77	74	72	70	67	65	63	62	60	58	56	55	53	52	50	49	48	46	45	44
385	87	84	81	78	75	73	71	68	66	64	62	60	59	57	55	54	52	51	50	49	47	46	45
390	88	85	82	79	76	74	72	69	67	65	63	61	59	58	56	55	53	52	50	49	48	46	45
395	89	86	83	80	77	75	72	70	68	66	64	62	60	58	57	55	54	52	51	50	48	47	46
400	90	87	84	81	78	76	73	71	69	67	65	63	61	59	58	56	54	53	51	50	49	48	47
405	91	88	85	82	79	77	74	72	70	68	66	64	62	60	58	57	55	54	52	51	49	48	47
410	92	89	86	83	80	78	75	73	71	68	66	64	63	61	59	57	56	54	53	51	50	49	48
415	93	90	87	84	81	79	76	74	71	69	67	65	63	61	60	58	56	55	53	52	51	49	48
420	94	91	88	85	82	80	77	75	72	70	68	66	64	62	60	59	57	56	54	53	51	50	49
425	96	92	89	86	83	81	78	75	73	71	69	67	65	63	61	59	58	56	55	53	52	51	49
430	97	93	90	87	84	81	79	76	74	72	70	68	66	64	62	60	58	57	55	54	52	51	50
435	98	94	91	88	85	82	80	77	75	73	70	68	66	64	63	61	59	58	56	55	53	52	50
440	99	95	92	89	86	83	81	78	76	73	71	69	67	65	63	62	60	58	57	55	54	52	51
445	100	97	93	90	87	84	82	79	77	74	72	70	68	66	64	62	61	59	57	56	54	53	52
450	101	98	94	91	88	85	83	80	77	75	73	71	69	67	65	63	61	60	58	56	55	54	52
455	102	99	95	92	89	86	83	81	78	76	74	71	69	67	65	64	62	60	59	57	56	54	53
460	103	100	96	93	90	87	84	82	79	77	74	72	70	68	66	64	63	61	59	58	56	55	53
465	105	101	97	94	91	88	85	83	80	78	75	73	71	69	67	65	63	62	60	58	57	55	54
470	106	102	98	95	92	89	86	83	81	78	76	74	72	70	68	66	64	62	61	59	57	56	54
475	107	103	100	96	93	90	87	84	82	79	77	75	72	70	68	66	65	63	61	60	58	56	55
480	108	104	101	97	94	91	88	85	83	80	78	75	73	71	69	67	65	64	62	60	59	57	56
485	109	105	102	98	95	92	89	86	83	81	78	76	74	72	70	68	66	64	62	61	59	57	56
490	110	106	103	99	96	93	90	87	84	82	79	77	75	73	71	69	67	65	63	61	60	58	57
495	111	107	104	100	97	94	91	88	85	83	80	78	75	73	71	69	67	65	64	62	60	59	59

Formulas:

You can estimate your ideal body weight or body mass index by using the following formulas.

Ideal body weight for men (in pounds) = {(height in inches - 60) x 6} + 106

Ideal body weight for women (in pounds) = {(height in inches - 60) x 5} + 100

Body Mass Index (kg/m²) = weight (lb) x 0.4534 / {height (inches) x 0.0254}²

My primary care doctor



Name _____

Address _____

City, State, Zip _____

Phone Number _____

My dietician



Name _____

Address _____

City, State, Zip _____

Phone Number _____

My psychiatrist/therapist/psychologist



Name _____

Address _____

City, State, Zip _____

Phone Number _____

Other Specialists



Name _____

Address _____

City, State, Zip _____

Phone Number _____

My Questions for Medical Personnel:

Question: _____

Answer: _____

Question: _____

Answer: _____

Question: _____

Answer: _____

Question: _____

Answer: _____



DIGESTIVE DISORDERS CENTER

P.O. Box 1289 • Tampa, FL 33601-1289 • (813) 844-7000
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