

Weight Loss Surgery

**Gastric Bypass Roux-en-Y
Adjustable Laparoscopic Gastric Band**

Johnson City Medical Center

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SECTION I

OBESITY & GASTRIC BYPASS SURGERY

INTRODUCTION

Weight problems and obesity are common medical and public health issues in the United States and other developed countries. Severe obesity is associated with increased risk for cardiovascular disease (hypertension, arteriosclerotic heart disease, heart attacks), diabetes mellitus, and blood cholesterol abnormalities among other numerous medical conditions.

In 1985 and 1991 the National Institute of Health (NIH) brought together physicians, nutritionists, and other health care professionals to address treatment options for severe obesity. The findings of these NIH consensus conferences were that weight reduction always be recommended for patients with severe obesity. Patients with severe obesity (also known as morbid obesity) are potential candidates for treatment by surgical procedures to help achieve meaningful weight loss and better long-term weight control, because of the high health risk of such obesity, the low risk of surgical treatment, and the ineffectiveness of routine dietary treatment.

Standard dietary restrictions and control of caloric intake are the basic tenants of any treatment for obesity. Surgery for weight control should be viewed as an extension of dieting for the purposes of losing large amounts of weight and maintaining weight loss. This booklet will provide general facts about surgery for weight loss.

The medical topic of obesity with its numerous therapies, including surgery, is complex and beyond the scope of this limited overview. Although this booklet may answer some often asked specific questions about weight loss surgery, all patients are encouraged to raise issues and ask questions to further their understanding about obesity and its relation to general health.

WHAT IS OBESITY?

Obesity is a chronic, lifelong, genetically related disease. Although the method of genetic transmission of obesity is not known, in some persons the body is programmed to store food as excessive body fat. Glandular disorders, hormonal imbalances, eating disorders, or psychological problems may be associated with obesity, but rarely the cause of the disease. Obese people do not lack willpower and are not bad people or failures, because they cannot maintain weight loss.

HOW IS OBESITY DEFINED?

The severity of obesity is defined as mild, moderate, severe or morbid, and super or malignant according to one's ideal weight for sex, height, and body frame. A more recent term that is used to describe obesity is Body Mass Index or BMI. This number is calculated from the individual's height and weight. (See Table 1)

1. Mild Obesity - 120% of ideal weight (approximately 20-50 pounds over ideal weight) or a BMI greater than 25 but less than 30.
2. Moderate Obesity - 140% - 160% of ideal weight (approximately 50-75 pounds over ideal weight) or a BMI greater than 30 but less than 35.
3. Severe or Morbid Obesity - 160% - 225% of ideal weight (approximately 75- 150 pounds over ideal weight) or a BMI greater than 35 but less than 50.
4. Super or Malignant Obesity - 225% or greater of ideal weight (approximately 150 pounds or more over ideal weight) or a BMI greater Than 50.

Insert BMI table here

WHAT ARE THE CONSEQUENCES AND/OR COMPLICATIONS OF OBESITY?

Many medical, psychological, social, and economic conditions are associated with obesity. The multitude and severity of complications are all directly proportional to the severity and duration of obesity and vary with the distribution of body fat.

Medical conditions include:

- Hypertension (high blood pressure)
- Coronary artery disease and atherosclerotic heart disease
- Diabetes
- Gallbladder disease
- Gastrointestinal disorders (such as heartburn and reflux)
- Osteoarthritis (degenerative arthritis)
- Venous stasis ulcers
- Shortness of breath
- Pulmonary hypoventilation syndrome
- sleep apnea, and snoring
- High cholesterol and triglyceride levels
- Menstrual irregularities
- Urinary incontinence
- Increased incidence of malignancies of the ovaries, cervix, uterus, breasts, prostate, and gallbladder

Psychological conditions include:

- Depression
- Low self-esteem, self-hate, and guilt
- Social withdrawal
- Neurotic disorders
- Suicide

Social conditions include:

- Clothing limitations
- Poor hygiene and sanitation
- Difficulty going to a movie, sitting on an airplane, or going through a turnstile
- Difficulty walking or climbing stairs
- Sexual limitations

Economic conditions include:

- Cost of weight loss programs (an estimated \$13 billion spent per year)
- Health care costs for co-morbid conditions (an estimated \$39 billion spent per year)
- Difficulty obtaining insurance coverage and/or increased premiums
- Job discrimination for placement or promotion

DOES WEIGHT LOSS IMPROVE ONE'S HEALTH?

Long-term weight loss can improve many aspects of one's health. A reduction of 10% or less can result in a decrease in blood pressure, improve cholesterol levels, and help control blood sugar. In addition, sleep apnea is improved, pain in weight-bearing joints is lessened, and individuals are able to breathe better. Additional weight loss beyond the 10%, gives added benefits of lowering cholesterol, eliminating the need for diabetes and blood pressure medications in many individuals, and relieving heartburn and gastrointestinal discomfort. People who have lost weight feel better about themselves and become more active, productive, and happy.

WHY DON'T DIET PROGRAMS WORK FOR THE MORBIDLY OBESE?

There is an extremely high incidence of failure to maintain a 10% weight loss in obese patients with traditional diet and exercise programs. Most diet programs involve restricting caloric intake. They are based on deprivation and eventually lead to frustration with the deprivation and slow weight loss. In addition, many commercial weight loss and exercise programs are very costly. The programs may be effective while one is participating, but when one returns to normal eating patterns, the weight is frequently regained.

Here is a list of some of the most used non-surgical weight loss plans (all have a 98% failure rate):

1. Diets (Weight Watchers, Jenny Craig, Nutrisystem)
2. Supervised Modified Low Calorie Diets (Optifast, Medifast)
3. Behavior Modifications (TOPS)
4. Pills and Pharmaceuticals
5. Exercise Programs
6. Combination of Two or More of the Above
7. Other Dieting Treatments (Overeaters Anonymous)

Statistics show that 98-99% of dieters will regain their weight and 93% of them will actually gain more weight.

WHAT OTHER OPTIONS ARE AVAILABLE FOR LONG-TERM WEIGHT LOSS?

In 1991, the National Institute of Health published a consensus report stating that bariatric surgery has been shown to be the most effective long-term solution to aid in weight loss and the management and prevention of life-threatening complications of morbid obesity. The NIH Consensus Panel recommended that patients initially seek therapy for severe obesity through a non-surgical program that integrates a dietary regimen, appropriate exercise, behavior modification, and psychological support. If a patient has made multiple sincere attempts at weight reduction through these methods and have not been successful, a gastric restrictive and/or bypass procedure could be considered for well-informed, highly motivated patients.

Surgical treatment is the only treatment that provides effective long-term control. Here is a list of the different types of surgical procedures performed for obesity:

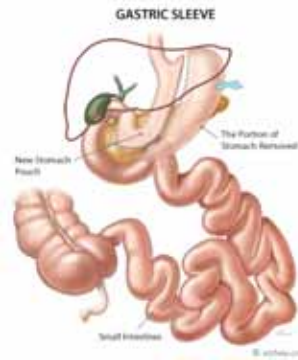
1. Gastric Bypass – This restrictive and malabsorptive surgery is the golden standard for obesity surgical treatment with a greater than 80% success rate with greater than 50% excess weight loss maintained for more than 5 years. Mortality rate of less than 1% and morbidity rate of less than 20%. There are various modifications of the gastric bypass operation.



2. Laparoscopic Adjustable Gastric Band – This is a restrictive surgery. The weight loss after 3 years is 36.2% of excess weight.



3. Gastric Sleeve (Gastrectomy) – This is a restrictive surgery with little malabsorption. Weight loss is similar to the Adjustable Gastric Band.



4. Gastroplasty - This is another common operation for control of obesity with about a 60% success rate with greater than 50% excess weight loss maintained for more than 5 years. Mortality rate of less than 1% with a morbidity rate of less than 10%. There is a high revision rate due to staple line breakdown, which approaches 28% over a 5 year period. Vertical banded gastroplasty (VBG) and silastic ring vertical gastroplasty (SRVG) are the two common gastroplasty operations performed.
5. Other Operations: Biliopancreatic Division (BPD), Intestinal Bypass (JIB) – This procedure is not recommended, Biliopancreatic Division with Duodenal Switch.
6. CNS Surgical Manipulation (Experimental)

We perform Gastric Bypass, Laparoscopic Adjustable Gastric Band and Gastric Sleeve at Johnson City Medical Center.

WHAT TYPES OF SURGERY DOES THE NIH RECOMMEND FOR WEIGHT REDUCTION?

Currently, there are two procedures recommended by NIH. These are the gastric bypass and vertical banded gastroplasty. The gastric bypass is the most successful for achieving and maintaining weight loss. Within a year to eighteen months following surgery, most patients may lose 75% of their excess body weight.

WHO QUALIFIES FOR BARIATRIC SURGERY?

Not all patients with obesity are suitable candidates for bariatric surgery. Everyone will agree that appropriate dieting, exercise, and attempts at non-surgical weight management should be approached before any consideration for more aggressive surgical treatment is undertaken.

Although, there are exceptions. The following criteria are generally observed before consideration for bariatric surgery is given.

Patients should have:

1. A recommendation by one's own physician that surgical treatment is necessary.
2. Weigh at least twice their ideal weight or 100 pounds over ideal weight. (See Table 1)
3. Body Mass Index (BMI) greater than 40 or 35 with co-morbidities.
4. Repeated, well-documented, previous efforts at weight loss through diet that was nutritionally and medically balanced and safe. Supervised weight loss programs with documentation of caloric intake and weight loss results are extremely helpful.
5. Proper motivation and willingness to make permanent changes in eating habits.
6. Absence of medical problems that would make surgery too risky and hazardous.

7. A full understanding and acceptance of the risks and limitations as well as the benefits of weight loss induced by surgery.
8. If BMI is between 35 and 40 with the presence of two or more serious co-morbidities such as:
 - a. Hypertension (high blood pressure)
 - b. Diabetes
 - c. Sleep apnea
 - d. Polycystic Ovarian Disease
 - e. Heart disease
 - f. Arthritis or degenerative joint disease in weight-bearing joints.

Although patients may or may not meet all of the above guidelines, recommendations of surgery through this program will only occur after review of their medical information, in-depth personal discussions, and a thorough medical evaluation by our surgeon.

It is important for patients to have realistic expectations of how much weight loss can be achieved as a result of surgery. Listed below are some of the limitations patients can expect.

Possible limitations:

1. Dietary restrictions will be needed **indefinitely**. The patient must make eating habit and lifestyle changes to make weight control permanent.
2. Amount of weight loss induced by surgery is variable and unpredictable.
3. Few patients achieve ideal body weight just because of surgery.
4. Most patients lose about 1/2 - 2/3 (50-75%) of their extra weight.
5. The stomach pouch and outlet may stretch and weight gain can recur.
6. Re-operation is much less successful and carries greater risks than the first-time weight loss operation.
7. Patients need lifelong follow-up with their doctor.
8. Weight loss may be accompanied by sagging skin folds.
9. Long-term effects of current weight loss surgery remain unknown.
10. For women of childbearing age, pregnancy should be avoided during the rapid weight loss phase after surgery. This is generally 18-24 months after surgery. Long-term fertility is not adversely affected by bariatric surgery if proper nutritional status is achieved.

As one studies the benefits, risks, and limitations of bariatric surgery many questions may arise. It would be prudent to make notes of such questions, so that they may be answered during the evaluation process.

WHAT ARE THE CONTRAINDICATIONS TO SURGERY?

Some of the contraindications to surgery are as follows:

1. Alcoholism
2. Hepatic cirrhosis with impaired liver
3. Serious psychiatric disability
4. Treatable hormonal causes of obesity

CAN THIS SURGERY BE REVERSED?

Gastric bypass can be reversed if the need should arise; however, reversal is also a major operation and the risks and benefits should be carefully considered. Reversal will almost always result in weight gain.

CAN A WOMAN GET PREGNANT AFTER GASTRIC BYPASS SURGERY?

Many women have become pregnant and delivered healthy babies after gastric bypass surgery. However, as mentioned earlier, patients are asked to use birth control for 18-24 months after surgery, so they do not become pregnant during the rapid weight loss phase. In addition, any woman considering pregnancy after surgery should have blood work to determine that she is nutritionally ready to support a healthy pregnancy.

WHAT IS THE EVALUATION PROCESS FOR BARIATRIC SURGERY?

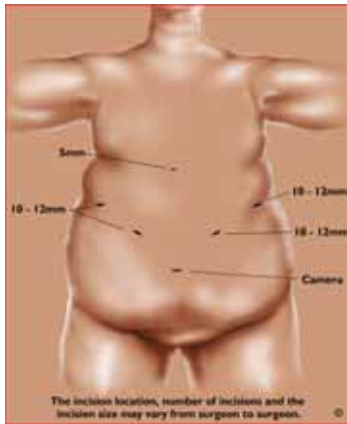
The formal evaluation process for consideration of bariatric surgery is extensive and comprehensive. It gives the surgeon a chance to fully understand a patient's specific health problems. This evaluation takes approximately two (2) visits to our office to allow for gathering of all pertinent medical data, laboratory tests, X-rays, nutrition services, and psychological evaluation. Details of medical records from previous doctors may need to be gathered and studied. It may take several weeks for a full evaluation to be completed before surgical plans are made. It is important during this evaluation time that patients seeking bariatric surgery become familiar with their own personal goals for weight loss and compare these expectations of what bariatric surgery can do for weight control.

WHAT IS A ROUX-EN-Y GASTRIC BYPASS?

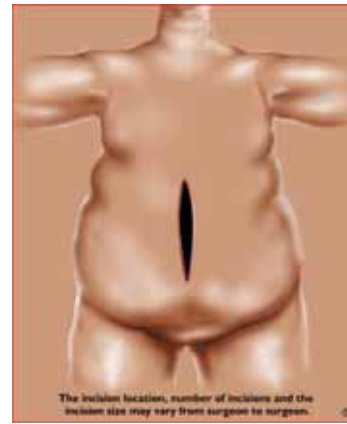
One of the operative procedure we perform is the Roux-en-Y Gastric Bypass which is a surgical procedure for achieving and maintaining a healthy weight. This procedure divides the stomach into a small gastric pouch, which will reduce the amount of food the stomach will hold. In addition, part of the small intestine is divided and attached to the small pouch through a new small outlet. This rerouting causes the food to bypass the lower part of the stomach and a portion of the small intestine where some digestive processes take place. Protein and carbohydrate digestion is not affected, but the digestion of fat is affected, so you absorb less fatty foods. The net result of the surgery is to limit the capacity of the stomach for food and altering the desire to eat larger portions. Without hunger, the patient reduces their quantity of food and the body must burn the extra fat for fuel. The patient will experience unpleasant "aversion" reactions if they overeat or eat the wrong types of food. This operation is accepted by obesity surgeons and the major obesity physician societies as being the most effective in weight reduction and maintenance of weight loss.

We prefer performing the 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 surgery. The decision to proceed with laparoscopic versus open surgery will be made during your office visit. The surgical incisions needed for each approach are shown below:

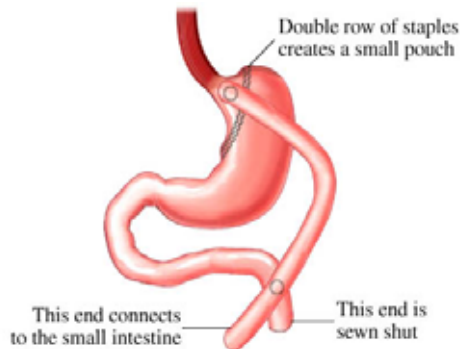
Laparoscopic Procedure



Open Procedure



The surgical procedure remains the same regardless whether performed with the laparoscope or as an open procedure (See Figure 2). A small stomach pouch is created with a stapler device. The small intestines are then divided and one end brought up and connected to the small stomach pouch using the stapler. The intestines are reconnected as shown.



Gastric Bypass

If you have cholelithiasis (gallstones) or acalculus cholecystitis (diseased gallbladder without evidence of gallstones), we next proceed to remove the gallbladder as significant weight loss is associated with a higher incidence of acute infection of the gallbladder requiring emergency surgery. If your gallbladder is normal, we usually do not remove it.

Expected Weight Loss: The amount of weight the patient will lose depends on many factors such as: beginning weight, BMI, activity level, and compliance with dietary instructions. Weight loss will be rapid during the first 3 months after surgery. As patients adapt to their new stapled stomach, eating and caloric intake will increase and the rate of weight loss will lessen. By the 6th month, an approximate 5-10 pound weight loss per month will be noted. By the end of one (1) year to 18 months, nearly all weight loss induced by surgery will have been achieved. Without careful attention to adequate eating habits, weight gain can recur, because the surgically created stomach pouch and outlet may dilate and the surgically imposed restriction on eating may no longer exist.

Note: Patients are encouraged to begin a regular exercise program, but should not start this until advised by the surgeon to do so. Once you begin exercising, you will build up muscle mass. This may cause a decrease in weight loss as far as pounds, but also a decrease in inches. Muscle weighs 2-1/2 times more than fat. The more muscle mass you have, the more calories you burn even at rest.

WHAT ARE THE COMPLICATIONS OF ROUX-EN-Y GASTRIC BYPASS SURGERY?

Most patients will not experience any complications of their surgery. Nonetheless, Roux-en-Y Gastric Bypass is a major surgical procedure and both short and long-term complications associated with the procedure as well as with general anesthesia can occur. An obese patient's risk for complications following major surgery is increased when compared to non-obese patients undergoing similar surgery. The occurrence of various complications after bariatric surgery is recognized and anticipated; although complications can be minimized, they can not always be avoided.

Below is a partial list of the complications patients must consider when thinking about proceeding with surgery. These complications will be listed on an operative consent form and will be reviewed with you prior to surgery.

Possible Complications:

1. Cardiovascular problems (especially with unidentified pre-existing heart disease): Heart attack, stroke, or death. These surgical complications occur in less than 1% of patients. The mortality rate of gastric bypass surgery is less than 1%.
2. Circulation problems: Phlebitis, thrombophlebitis, blood clots, and pulmonary embolus (blood clots formed in the legs that can break off and travel to the lungs). If a clot is large enough, it can be fatal. Early ambulation (walking) helps prevent this potentially serious complication.
3. Stomach/Intestinal problems: Leakage from the stomach or intestinal surgical sites requiring additional surgery, intestinal blockage from scarring possibly requiring additional surgery, narrowing where the small stomach pouch is attached to the small intestines (occurring about 1 in 20 patients, which could require balloon dilations while the patient is sedated), and dumping syndrome (a condition in which the food, specifically sugary and fried foods, empties from the stomach too quickly resulting in abdominal bloating and cramps, nausea, vomiting, sweating, rapid heart rate, dizziness, weakness, occasional fainting, and diarrhea).
4. Respiratory problems: Pneumonia (inability to clear secretions from the lungs and/or aspiration of stomach contents), asthma, need for respiratory support for underventilation, or possible tracheostomy.
5. Wound problems: Infection in the wound (5-10%), hernia development (3%), or wound break down requiring re-closure in the operating room.
6. Nutritional problems: Excessive weight loss, vitamin and/or mineral deficiencies (requiring ongoing medications and/or injections), anemia, hair loss, bone weakening, gallstones, and/or kidney stones.
7. Injury to nearby organs: Spleen (may require splenectomy, which is the surgical removal of the spleen) and liver (may cause bleeding requiring possible blood transfusions).
8. Numerous other less common complications.

Emotional Changes:

Be prepared for emotional ups and downs after you go home from the hospital. Some patients feel like they are on an emotional roller coaster. These feelings are completely normal and usually go away after several months. If these feelings continue or get worse, you may need professional help and should see your psychiatrist or psychologist.

WHAT ARE THE POTENTIAL BENEFITS OF BARIATRIC SURGERY?

The many benefits of achieving appropriate weight and eating control are obvious. Everyone feels better physically and emotionally when their weight is under control. In addition, high blood pressure, diabetes, cholesterol problems, and other health problems have been demonstrated to be improved and/or easier to control with less medication if significant weight control is established. It is important to understand that weight loss should be gradual, sustained, and accompanied by careful attention to proper nutrition during the rapid weight loss period.

ARE THERE ANY OTHER LIFETIME NUTRITIONAL IMPLICATIONS?

You will need to permanently restrict fats and sugars from your diet. You will also be required to take vitamin supplements for life, because the part of the small intestine that is bypassed is important in the absorption of calcium, iron, vitamin B12, and fat soluble vitamins, such as vitamins A & E. This includes a daily multi-vitamin with minerals and iron and either a monthly vitamin B12 injection or sublingual B12 every other day to maintain U.S. Recommended Daily Allowances. In addition, periodic blood work should be performed to assure the patient is receiving adequate nutrition and vitamin supplementation.

WHAT IS THE RECOVERY TIME AFTER GASTRIC BYPASS SURGERY?

The surgery itself takes approximately 1-2 hours. Most patients are discharged from the hospital 2 to 3 days after surgery (approximately 2 days for the laparoscopic procedure and approximately 3 days for the open procedure).

Driving will not be advised until the post-operative discomfort has resolved and no further narcotic pain medications are required, which is approximately 2 weeks.

Activity that does not stress the abdominal incision is encouraged at the time of discharge from the hospital. Walking, climbing stairs, and exercise bicycles are permitted. Patients should not perform heavy lifting (over 10 pounds) until advised by the surgeon. Patients will be instructed when to resume a rigorous and active exercise regimen as soon as it is safe to do so, which is generally 4-6 weeks. Sexual relations may be resumed approximately 2 weeks after surgery.

Most patients may return to work in approximately 2-4 weeks after surgery for occupations that are not strenuous and require no lifting and approximately 4-6 weeks for occupations requiring heavy lifting and/or strenuous physical activity. Of course, everyone heals at a different rate and release to return to work will be made accordingly by the surgeon.

HOW OFTEN WILL I NEED TO SEE THE SURGEON AFTER GASTRIC BYPASS SURGERY?

After discharge from the hospital, patients will be followed on a regular basis in our office. Patients should anticipate returning to the office in 10-14 days, 2 months, 6 months, 1 year, and every year thereafter. Of course, office visits may be more frequent if any post-operative complications or problems arise and will be treated accordingly.

Your sutures and/or staples are usually removed on your first post-operative visit along with the drain, if you have one in place.

Coordination with a patient's regular medical doctor will need to be performed to provide long-term care and follow-up after surgery also.

Routine blood work will be performed after surgery, then yearly for life. This is to ensure all your nutritional needs are being met.

WHAT TYPE OF SPECIAL INSTRUCTIONS AND WOUND CARE WILL I NEED TO KNOW UPON DISCHARGE FROM THE HOSPITAL?

When you leave the hospital you will still have your sutures or staples in place and a drain. You may shower only, but avoid any submersion in water. For example, bathtub, pool, or hot tub. Remove all bandages prior to shower. After showering dry the incision(s) thoroughly and reapply **CLEAN** bandaids or a gauze dressing over the incision. Use Neosporin or other topical antibiotic ointment sparingly for one week only. Prolonged use can cause irritation to the skin and actually delay healing. If you notice redness around the incision(s) and small clear-like blisters, discontinue use of the topical antibiotic ointment, because this is a sign of an allergic reaction. Some yellow-clear or pink-tinged drainage from the incision(s) and/or around the drain is normal. Call the office for any signs of infection at the incision, which includes marked redness, purulent (yellowish) and/or increased drainage, and increased incisional pain.

Vitamin supplements, ulcer prevention medications, and pain medications are usually prescribed as you leave the hospital. Your medication will be prescribed in liquid form if available for that particular medication.

If only pill form is available, you will need to crush this before you take it. If you have any questions on whether it is safe to crush a medication, please check with your pharmacist. **You must either use liquid form or crush your medications for the first 2 months after gastric bypass surgery.** Remember, you will need to be on vitamin supplements for the remainder of your life either in tablet form, nasal spray or by injection.

You will also be required to drink high-protein liquid supplements in small amounts for approximately the first 8 weeks after surgery, but these are not to compose your entire diet. You will still be on a liquid diet upon discharge from the hospital and will need to remain on this until your surgeon increases your diet. A diet plan is included in this booklet.

Each patient needs to understand that during the first year after surgery eating and lifestyle habits need to be modified, so that permanent weight loss can be achieved. Patients are encouraged to exercise regularly and become involved in a supervised diet program to help learn permanent healthy eating patterns.

WHAT IS CONSIDERED AN EMERGENCY AND WHAT SHOULD I DO IF I HAVE ONE?

An emergency is considered a sudden, unexpected occurrence demanding immediate attention. If you feel you are having an actual emergency or are experiencing what you feel to be a heart attack, stroke, seizure, or severe difficulty breathing, then call 911 or go to your nearest Emergency Room immediately, you do not need to call your surgeon first. If you have a temperature greater than 101 °F, profuse bleeding from your incision, profuse vomiting or vomiting of bright red blood, and/or a new onset of severe abdominal pain, please call your surgeon or go to the Emergency Room.

AM I ALLOWED TO USE ANY OVER-THE-COUNTER MEDICATIONS?

You may take the following over-the-counter medications as needed:

1. For headache - Tylenol (avoid aspirin unless approved by your surgeon)
2. For heartburn or indigestion (if not given stomach medication upon discharge) - Pepcid, Zantac, Axid, Tagamet, Maalox, or Mylanta
3. For sleeplessness – Benadryl (child dosage)
4. For constipation - Milk of Magnesia (child dosage)
5. For diarrhea - Imodium A-D*
6. For gas – Gas-X
7. For hair loss - Zinc supplements (although this is usually in your required vitamins).

***Remember to take these in liquid form only or crush them for the first two (2) months after gastric bypass surgery.**

WHAT ARE SOME COMMON PROBLEMS AFTER GASTRIC BYPASS SURGERY?

It is common to experience:

1. nausea
2. vomiting and food intolerance
3. constipation
4. rapid weight loss
5. hair loss
6. mild abdominal and/or incisional pain and/or soreness.

If any of these symptoms are severe and/or prolonged, please call your surgeon.

WILL MY INSURANCE PAY FOR GASTRIC BYPASS SURGERY?

Patients seeking bariatric surgery should be aware that medical insurance coverage of such services varies from policy to policy. Patients are advised to review their individual insurance policy to understand what insurance benefits are allowed for evaluation and treatment of obesity related health issues. Although, this office's general medical guidelines for consideration of bariatric surgery are outlined previously in this booklet, specific guidelines required by your insurance company for coverage of bariatric surgery may not correspond exactly. Financial counseling and preauthorization from your insurance company needs to be secured **before** surgery can be performed. We recommend you call your insurance company before any other steps are taken to determine if weight loss surgery is a covered benefit under your particular policy. For your insurance company the CPT code (procedure code) for a gastric bypass with Roux-en-Y open procedure is 43846, laparoscopic procedure is 43644, adjustable laparoscopic gastric band is 43770. The ICD-9 code (diagnosis code) for morbid obesity is 278.01. Our office personnel will call your insurance company for verification of coverage and pre-certification of gastric bypass surgery after your surgery has been recommended. Sometimes additional information is required to obtain an approval from your insurance company. If any questions or problems arise, we will contact you as soon as possible to avoid delay in your surgery.

WHAT IS THE COST OF GASTRIC BYPASS SURGERY SHOULD MY INSURANCE COMPANY DENY IT?

The evaluation process for bariatric surgery is extensive and very thorough. The pre-operative evaluation includes not only visits with the surgeon, laboratory tests, and X-rays, but also a consultation with the dietitian and psychological evaluation. The operative procedure is technically demanding and requires careful monitoring post-operatively. Hospitalization is approximately 2-3 days for gastric bypass. Adjustable laparoscopic gastric bands are performed as a same day surgery. Intensive care units may be required for patients.

Of course, our office is not able to tell you the cost of the surgery from the hospital standpoint, which would include the surgery, hospital stay, and pre-operative and post-operative labs and X-rays. You would need to contact the Johnson City Medical Center Hospital Financial Department at 423-431-1735 for an approximate cost, required deposit, and payment plan. You will also need to contact anesthesia, radiology, pathology, and a psychologist regarding their fees.

You will need to speak to our Office Manager regarding our surgeon's charges and payment agreement

SECTION II

DIET

Weight Loss Surgery

Pre-op Diet

It is recommended by your surgeon to follow a low sugar, liquid diet 10 days before surgery. The purpose of this liquid diet is to deplete your glycogen stores, which in turn will make laparoscopic surgery placement easier. Here are examples of liquids you can have during this time period. The nutritional guidelines are as follows:

Consume these liquids in moderation, they contain larger amounts of sugar.

1. **100% Juice, Gatorade®**, or **Powerade®** - limit to 2 cups or less each day. (*Try to choose juices lower in sugar such as apple, orange, or grapefruit*)
2. **Regular Jello®**, **popsicles**, or **no-sugar-added fudgesicles** – 3 or less each day.
3. **1 cup of milk** (skim, 1%, Lactaid®, or 2%) **or 8 oz. Light Yogurt** (Dannon Light®, Yoplait Light®, or Colombo Light®) **or ½ cup cottage cheese** – 3 servings or less each day.
4. **High protein supplement** that is low-sugar, low-carb, high protein. 1-2 a day. (*See list in Diet Section of the on the next page of this book*). **DO NOT BUY:** Slim Fast®, Ensure®, Boost® etc.

These liquids can be taken in any amount since they do not contain sugar.

1. Sugar-free beverages such as Crystal Light®, Wyler's Light®, Sugar-free Kool-Aid® or Sugar-free Tang®, Diet Snapple®, Fruit2-0®, Propel®, coffee or tea with sugar substitute or water.
2. Broth soups (all varieties)
3. Sugar-free popsicles and sugar-free Jello®

ATTENTION DIABETICS! For those with diabetes we recommend consuming 15 grams of carbohydrates every 1-2 hours. Be sure to monitor your blood sugars and contact your doctor if necessary. If your blood sugar is >150mg, spread these sugar sweetened liquids out over a 3 hour period.

Liquids with 15 grams of carbohydrates:

- ½ cup orange, apple or grapefruit juice
- 1 popsicle
- 1 cup milk
- 6 ounces light yogurt (Dannon Light®, Yoplait Light®, or Colombo Light®)
- ½ cup cottage cheese
- 1/3 cup regular Jello®
- ½ cup Kool-Aid®
- 1 tbsp. honey or sugar (can be used to sweeten a beverage)

If you have questions, please contact:

Judy Henegar, Office Manager at 423-975-0764 or jahenegar@yahoo.com or
Pat Cline, Weight Loss Surgery Coordinator at 423-431-1449 or clinepg@msha.com.

Protein for Weight Loss Surgery
The Dietitian will tell you your personal protein needs – 423-431-2759

Product Name	Serving Size	Protein (g)*	Carbs (g)*	Calories**	Fat (g)	Flavors	Places to Buy
IsoPure Drinks	1 bottle	40	0	160	0	Blue Raspberry Mango Peach Pineapple Orange Banana Passion Fruit Apple Orange Grape Fruit Punch Alpine Punch Grape Frost	Websites Health Food Stores
Ultra Pure Protein	1 can	35	3	160-170	.5	Vanilla Cream Strawberry Cream Frosty Chocolate Cookies and Cream Banana Cream	Websites
Worldwide Sport Pure Protein	1 can	35	2	160	1	Chocolate Banana Cream Vanilla Cookies and Cream Strawberry	Websites Health Food Stores
Pure Whey	1 scoop	26	3-6	130	2	Chocolate Vanilla Strawberry Banana Mochaccino	Health Food Stores websites
IsoPure Powder	1 scoop	25	0	105	0	Mango Peach Pineapple Orange Banana Apple Melon Alpine Punch Strawberry Creamy Vanilla Cookies and Cream Low Carb Chocolate	Websites Health Food Stores
New Whey	1 vial	25	0	100	0	Fruit Punch Blue Raspberry Swirl	Health Food Stores Websites
GNC Protein 95	1 scoop	25	5-7	130	1.5	Chocolate Vanilla Banana	GNC
Nectar	1 scoop	23	0	90	0	Apple Ectasy Very Cherry Berry Caribbean Cooler Fuzzy Navel Lemonade Strawberry Kiwi Crystal Sky Lemon Tea Cappucino Twisted Cherry	Health Food Stores
Pro Complex	1 scoop	22.5	1.5 - 3	130	1	Rocky Road Carmel Nut Milk Chocolate Vanilla Chocolate	
Pro Blend 55	1 scoop	22.5	3.5	137	1.5	Chocolate Mocha Cappuccino Strawberry Vanilla	Websites
Unjury	1 scoop	20	4	90	0	Chocolate Vanilla Unflavored (1g carb)	www.unjury.com
Premium Whey	1 scoop	20	3	110	2.5	Chocolate and Vanilla	WalMart

Product Name	Serving Size	Protein (g)*	Carbs (g)*	Calories**	Fat (g)	Flavors	Places to Buy
SciFit 100% Whey	1 scoop	22	3	114	1.5	Chocolate Chocolate Mint Chocolate Strawberry Chocolate P-nut Butter Cup Strawberry Coconut Cream Pie Banana Peach Raspberry Lemonade Cookies & Cream Vanilla	Health Food Stores Websites
SlimFast Low Carb Meal	1 can	20	8	180-190	9g	Creamy Chocolate Vanilla Cream	Grocery stores
Carb Solutions	2 scoops	20 21	5 3	120	2.5	Chocolate Vanilla	Health Food Stores Websites
Revival Soy	1 pk	20	4-7	120-130	2	Chocolate Daydream, Vanilla Pleasure Strawberry Smile Cappuccino Comfort Just Peachy Banana Blessings Strawberry Banana Bliss Blueberry Blush Plain	www.revivalsoy.com
Unjury	1 scoop	20	4	90	0	Chocolate Vanilla Unflavored (1g carb)	www.unjury.com
Adkins Canned Drinks	1 can	15	4-6	170	9	Chocolate Delight Chocolate Royale Café' Mocha Strawberry Vanilla	Grocery Stores Health Food Stores
Pro-Stat 64	2 Tbsp	15	0	60	0	Natural Wild Cherry Butter Pecan	websites
Carnation Instant Breakfast No Sugar Added can	1 can	12	16	150	5	Rich Milk Choc. Classic French Vanilla Chocolate Malt Strawberry	Grocery stores
Designer Whey	1 scoop	07.5	4	90	1.5	French Vanilla Chocolate Ultimate Orange	Websites
Mighty Shakes	4 oz	07	20	200	10	Strawberry Vanilla	www.4webmed.com /mightyshakes
Carnation Instant Breakfast No Sugar Added powder	1 pk	04	12	70	.5-1	Rich Milk Choc. Classic French Vanilla Chocolate Malt Strawberry	Grocery stores

*Protein is for product alone, does not include milk.

**Calories is for product alone, does not include milk or juice

Websites:

www.vitalady.com

www.1nutrition.com

www.bariatriceating.com

www.directsupplement.com

www.cwimedical.com

www.vitaminshoppe.com

www.sportnutrition.com

www.cheapvitamins.com

www.affordablesupplements.com

Protein snacks are available at the Resolve Clinic located next door to the Surgeon's Office.

Protein options can also be found by performing a Google search for protein weight loss surgery, bariatric surgery protein or protein gastric bypass or adjustable laparoscopic gastric band. **Sample packets can be purchased from several vendors before surgery to have when you return home from your hospital stay.**

Introduction:

Welcome to your new eating lifestyle. Your diet after weight loss surgery is the second and probably most important aspect to help you achieve your goal of losing weight. It is used in tandem with the weight loss surgery.

The size of your stomach has been greatly reduced to limit the amount of food you are able to consume resulting in weight loss. It is very important after your weight loss surgery that you follow this plan, which will help:

1. Prevent pain and vomiting due to blockage of the opening from your stomach or stretching of your stomach
2. Achieve and maintain your desired weight loss
3. Become and remain nutritionally fit and healthy.

Weight loss surgery is not magic, it is a tool. You have to work very hard at changing your eating habits and lifestyle. The behaviors that you have now did not develop overnight and they will not go away overnight! Tips and guidelines for changing those habits and answers to many of your questions are contained in this booklet.

Stages of the Diet:

The following is a brief chart depicting the different stages of your diet after surgery. We will explain each in great detail, but this will give you an idea of what life will be like after surgery. It is important that you follow each stage and remain on each stage for at least the specified time period.

Stage 1	Clear Liquids- begins after your gastrograftin swallow study on the first day after surgery. Four (4) ounces per hour.
Stage 2	Full liquids – (liquids you can't see through) begins the second day after surgery and continues for two weeks after you are discharged. Four (4) ounces per hour. Goal is 48 ounces or more per day.
Stage 3	Soft and Pureed foods – your surgeon will advance you to this stage at your first follow up appointment. This stage will also continue for two weeks. Eat 2-3 ounces per meal which should take 30 to 45 minutes.
Stage 4	Maintenance - Low Fat Regular textures –begins when directed by your physician. Introduce new foods slowly and pay attention to the signals your body gives you.

Stage 1 Clear Liquids

You will begin this stage in the hospital

- You will have ice chips the day of surgery
- Clear liquids begin after the gastrograftin (leak test). 1 oz (30 ml) in 15 minutes.
- Pay attention to your body and be aware of feelings of fullness.
- Do not use straws or drink carbonated beverages, which can cause gas and/or problems with the anastomosis.
- **Examples of stage 1 foods:** crystal light, water, sugar free Kool-Aid, Jell-O, apple juice and broth.

Stage 2 – Full Liquids

When You Go Home:

Starting the day you go home from the hospital, you need to get a total of 6-8 cups (at least 48 oz.) of fluid each day to avoid becoming dehydrated. This will take some effort, because you may not feel hungry or thirsty at first. Monitor the color of your urine to determine if you are consuming adequate liquids. Dark urine means you are not consuming enough fluids.

You will be discharged from the hospital on stage 2 of the diet

- Continue to take small sips of water or low calorie, non-carbonated beverages throughout the day to quench your thirst and prevent dehydration. Gradually increase to 2 oz in 15 minutes.

- Begin high-protein liquid supplement such as Isopure or Sugar Free Carnation Instant Breakfast mixed with skim milk. (See the protein list above) In the hospital you will receive Sugar Free Mighty Shakes.
- You should drink between 4 oz and 8 oz (120 cc and 240 cc) of liquids every hour alternating the high-protein liquid supplement with the low calorie liquids. These liquids should not be taken all at once. Sip slowly and avoid drinking more than 2 oz to 4 oz (60 cc to 120 cc) every 30 minutes.
- Your goal is to get 8 oz of high-protein liquid supplement 2-3 times a day to get adequate protein (60 to 70 grams). These are to be slowly sipped over 1 to 2 hours. It may be difficult to consume the entire 8 oz in one hour, if so you can divide it into two hours. Your goal is to consume 60-70 grams of protein each day or as instructed by the dietitian based on your individual needs.
- Do not have any more than 8 oz of fluid per hour.
- Your goal is to consume 48 oz of fluid each day. This does not include the protein drink.
- Calcium citrate and vitamin supplements will begin at this time and will continue through all stages of your diet. Start with a transition so that by the fifth day you are able to get in all of your vitamins.
 - Day One: one chewable multivitamin a day
 - Day Two: increase to two chewable multivitamins a day
 - Day Three: add calcium citrate (chewable, liquid or crushed) once a day in addition to the two chewable multivitamins
 - Day Four: increase calcium citrate (chewable, liquid or crushed) to twice per day in addition to two chewable multivitamins
 - Day Five: add B12 if you are using sublingual (if using nose spray start after f/u surgical visit or injections start one month after date of surgery).

Examples (Stage 2)

	<i>Non –Calorie</i>	<i>High Protein</i>
LIQUIDS	<ul style="list-style-type: none"> ○ Water ○ Decaf Tea (with sugar substitute) ○ Decaf Coffee (with sugar substitute) ○ Broth ○ Crystal Light ○ Sugar Free Kool Aid ○ Diet Jell-O ○ Cranberry juice ○ Sugar Free popsicles (only 2-3 per day) ○ 100% fruit juices (no sugar added) 	<ul style="list-style-type: none"> ○ Isopure, Nectar, or other sugar free/low carbohydrate protein drinks ○ Diet (No Sugar Added) Carnation Instant Breakfast made with skim milk ○ Skim milk ○ Sugar Free Yogurt (plain or vanilla) ○ Tomato Soup (made w/ skim milk) ○ Strained ‘cream-of’ soups (made w/skim milk) ○ Sugar Free pudding ○ Sugar Free Cocoa ○ Milkshakes (made with light/no sugar added frozen yogurt and skim milk)

Sample menu for stage 2

- 7:00- 7:45 AM 1 oz skim milk, 1 oz sugar free pudding, 1 oz apple juice
- 7:45-10:45 12 oz sugar free, non-carbonated drink
- 11:00-11:45 1 oz skim milk, 1 oz plain or vanilla no sugar added yogurt, 1 oz apple juice
- 11:45- 1:45 PM 8 oz protein drink
- 2:00- 5:00 12 oz sugar free, non-carbonated drink
- 5:15- 6:00 1 oz skim milk, 1 oz tomato soup, 1 oz plain or vanilla no sugar added yogurt
- 6:00- 8:00 8 oz protein drink
- 8:15-11:15 12 oz sugar free, non-carbonated drink

Stage 3 – Soft and Pureed

Your diet will be advanced to this stage when directed by your surgeon

- Slowly begin adding pureed and/or soft foods to your diet
- Focus on high protein foods – your goal is 60-70 grams of protein each day
- You will need 3 oz of high protein pureed food 3 times a day (1 oz may be a pureed vegetable or fruit for variety)
- Chew each bite thoroughly – 20-30 times
- Try to get 16 oz of skim milk, 8 oz of “double milk” (1 cup skim milk mixed with 1/3 nonfat dry milk), or 8 oz of a high-protein liquid supplement between meals
- Do not drink any more than 8 oz of liquids per hour
- Keep liquids and solids separated. Stop drinking 30 minutes before meals and do not begin again until 30 minutes after a meal.
- Listen to your body and stop when you feel full.

	FOODS ALLOWED STAGE 3	FOODS TO AVOID STAGE 3
<u>MEAT/DAIRY/PROTEIN</u>	Scrambled/poached eggs Egg Whites White meat chicken (may use canned) White meat turkey Tuna (in water) Broiled/baked fish Deli meats (low-fat) Skim or 1% milk Double milk (8oz skim milk mixed with 1/3c nonfat dry milkpowder) Soy milk Fat-free half & half Low-fat sour cream Light no sugar added yogurts w/o seeds Sugar-free, fat free pudding Light string cheese Low fat cheeses Low fat cottage cheese Low fat cream cheese Low fat cream soups Low-lactose/lactose-free skim milk (if lactose-intolerant)	“Tough” meats (roast beef, steaks, pork chops, roast pork) Hot dogs Bologna Sausage Bacon Spare ribs Peanut butter Whole milk 2% milk Chocolate milk Half & half Regular sour cream Regular yogurt Regular pudding Regular cheeses Regular cottage cheese Regular cream cheese Regular cream soups Heavy cream
<u>CARBOHYDRATE</u>	Malt-O-Meal Cream of wheat Cream of rice Oatmeal Low fat crackers Low fat tortilla Mashed potatoes (low fat) Baked potato without skin Corn/rice-based cereals (Corn Flakes, Kix, Cheerios, Rice Krispies, Special K)	Bread Rice Pasta Granola Sweetened cereal High-fiber cereal Sweet rolls Doughnuts Croissants Popcorn High-fat crackers French fries Hash browns Sweet breads w/ nuts or dried fruit Pancakes/waffles & regular syrup
<u>VEGETABLES</u>	Tender-cooked vegetables, no stems Carrots, broccoli, cauliflower, green beans, etc. Tomato juice (no more than 8 oz/day) V-8 juice (no more than 8 oz/day)	Corn Peas Celery Lettuce Fried vegetables Stringy vegetables Vegetables in cheese sauces Vegetables with tough skins or large seeds

	FOODS ALLOWED STAGE 3	FOODS TO AVOID STAGE 3
FRUITS	Tender fruits (bananas, cantaloupe, honeydew) Unsweetened soft, canned fruits Unsweetened applesauce	Dried fruits Fruit juice (use in moderation) Fruits canned in heavy syrup Fruits w/ tough skins, shells, or large seeds
MISCELLANEOUS	Broth Herbs Lemon juice Low fat mayo dressing Sugar-free popsicles Artificial sweeteners (Splenda, Equal, Sugar Twin, Sweet-n-Low)	Sugar-free gelatin Spices Low fat margarine Low fat salad ALCOHOL Regular gelatin Cakes Butter/margarine Potato chips Corn chips Ice cream Jam Honey Gravy Pies Cookies Salad dressing Sugar Chocolate Candy Jellies Nuts (ok if in small amounts)
BEVERAGES	Water Decaf coffee Decaf tea Crystal Light Sugar-free Kool-Aid Veryfine Fruit ₂ O “Light” cranberry juices Skim milk (between meals)	Soft drinks Caffeinated drinks of any kind Carbonated drinks of any kind Sweetened fruit drinks Sweetened Fruit Juices Gatorade/Snapple/So-Be Sweetened gourmet coffees Sweetened ice tea

Sample menu for stage 3

7:00- 7:45AM	4-6 tbsp cream of wheat or oatmeal. Add 2 tbsp skim milk to thin cereal
8:15- 9:15	8 oz water or sugar free, non carbonated drink
9:15-10:15	8 oz protein drink
10:30-11:30	8 oz water or sugar free, non carbonated drink
12:00-12:45 PM	2-3 tbsp pureed ham, 2 tbsp mashed potatoes, 2 tbsp pureed broccoli
1:15- 2:15	8 oz water or sugar free, non carbonated drink
2:15- 3:15	8 oz protein drink
3:15- 4:15	8 oz water or sugar free, non carbonated drink
5:00- 5:45	2-3 tbsp pureed chicken, 2 tbsp pureed carrots, 2 tbsp mashed potato with 1 tbsp fat free gravy
6:15- 7:15	8 oz protein drink
7:15- 8:15	8 oz water or sugar free, non carbonated drink

Transition tips!

1. Eat slowly, taking about 30-45 minutes for each meal.
2. Pay attention to when you feel full – then stop- **you do not have to finish your meal.**
3. Chew thoroughly – to baby food consistency before swallowing. Swallowing chunks may block the opening and prevent passage of food. This could cause vomiting and pain. Chew 20-30 chews per bite!
4. **Avoid fluids 30 minutes before and 30 minutes after meals.** A protein drink is not a meal.
5. Drink enough fluid between meals to meet your fluid requirement of 6-8 cups per day and avoid dehydration. Carrying a water bottle and sipping throughout the day may help you reach this goal.
6. Avoid food and beverages high in sugar or fat which could cause dumping syndrome.
7. Avoid extremes in temperature of your foods and beverages. Some patients experience spasms or cramps with very hot or cold food and beverages.
8. Limit high fat foods. These could make you feel nauseated and are high in calories which can slow down weight loss.
9. Add new foods to your diet slowly and one at a time.

Stage 4 – Maintenance

You will begin your maintenance diet approximately 6 weeks after surgery. Start slowly and introduce one food item at a time. This way if something makes you sick or uncomfortable, you will be able to identify that food. Do not begin this diet until your surgeon has advised you to do so.



All foods in this stage should be:



- Low fat
- Very low sugar
- Rich in fruits, vegetables, and whole grains
- Provide adequate protein (60-70g/day)

Continue to keep your liquids separated from your solids.

Reminders:

1. Carefully begin eating solids being constantly aware of how much food is eaten. Even though the staple line is healed, it is possible to weaken or overstretch the new stomach.
2. Food intolerances are individual, but often temporary. Keep track of all food intolerances and wait approximately 2-3 weeks before introducing the food again.
Usual foods not tolerated are: Red meats, plain soft bread, and raw vegetables and fruits (especially apple peel and citrus membranes).
3. Try to take at least 10 minutes for each ounce.
4. Avoid distractions, such as TV or reading while eating.
5. Chew food to the consistency of pureed food before swallowing – about 20-30 chews per small bite.
6. Stop eating when the stomach feels full. Never force any food or liquid down. Avoid drinking while eating.
7. When eating out, order a beverage, side dish, or half-portion of the entree only.
*Beware of ordering off the ‘kiddie’ menu; although these items may provide small portions they are typically high in fat. Chinese food and pizza are not well tolerated.
8. Limit social activities centered around food in the beginning when you are still adjusting to your new stomach and lifestyle.
9. Expect some frustration over food intolerances. Food cravings are not unusual. Do not eat from stress, boredom, or being upset.
10. Contact your surgeon, medical physician, dietitian, or psychologist if you have a difficult time controlling your eating.

	 <u>FOODS ALLOWED:</u> STAGE 4	 <u>FOODS TO AVOID:</u> STAGE 4
<u>MEAT/DAIRY/PROTEIN</u>	Scrambled/poached eggs (no more than 3/wk) Egg Whites White meat chicken (may use canned) White meat turkey Tuna (in water) Broiled/baked fish Deli meats (low-fat) Skim or 1% milk Double milk (8oz skim milk mixed with 1/3c nonfat dry milk powder) Sugar Free (No Sugar Added) Carnation Instant Breakfast Soy milk Fat-free half & half Low-fat sour cream Light no sugar added yogurts w/o seeds Sugar-free, fat free pudding Light string cheese Low fat cheeses Low fat cottage cheese Low fat cream cheese Low fat cream soups Low-lactose/lactose-free skim milk (if lactose-intolerant)	“Tough” meats (roast beef, steaks, pork chops, roast pork) Fried meats Hot dogs Bologna Sausage Bacon Spare ribs Regular cheese Peanut butter/nuts Whole milk 2% milk Chocolate milk Regular milkshakes, frappes, eggnog Half & half Regular sour cream Regular yogurt Regular pudding Regular cheeses Regular cottage cheese Regular cream cheese Regular cream soups Heavy cream
<u>CARBOHYDRATE</u>	Malt-O-Meal Cream of wheat Cream of rice Oatmeal Corn/rice-based cereals (corn flakes, Kix, Cheerios, Rice Krispies, Special K) Low fat crackers Low fat tortilla Mashed potatoes (low fat) Baked potato without skin Pasta Toast Low fat popcorn (with caution)	Granola Sweet rolls Doughnuts Croissants Sweet breads w/ nuts or dried fruit Pancakes/waffles & regular syrup High-fat crackers French fries Hash browns Macaroni and Cheese Pasta with Alfredo Butter crackers- goldfish, Wheat Thins, etc Potato chips, tortilla chips, cheese curls
<u>VEGETABLES</u>	Any soft-cooked, plain vegetable. Tomato juice (no more than 8 oz/day) V-8 juice (no more than 8 oz/day) Reintroduce salad and raw vegetables slowly	Fried vegetables Vegetables in cheese sauces Vegetable cooked in added fat or cream sauces Olives Avocados Raw vegetables with tough skins, stems or seeds for 4 weeks

	 FOODS ALLOWED: STAGE 4	 FOODS TO AVOID: STAGE 4
FRUITS	Tender fruits (bananas, cantaloupe, honeydew) Unsweetened soft, canned fruits Unsweetened applesauce Fresh fruits –reintroduce gradually	Fruits w/ tough skins, shells, or large seeds Dried fruits Fruits canned in heavy syrup Fruit juice (use in moderation) Coconut
MISCELLANEOUS	Broth Sugar-free gelatin Artificial sweeteners (Splendid, Equal, Sugar Twin, Sweet-n-Low) Herbs Spices Lemon juice Low fat margarine Low fat mayo Low fat salad dressing Sugar-free popsicles Molly Mc Butter Spray Butter	Cream soups or chowders made w/whole milk or cream Regular gelatin Pies Cakes Cookies Butter/margarine/cream cheese/sour cream Salad dressing Nuts (ok if in small amounts) Potato chips Corn chips Chocolate Ice cream Candy Jam Jellies Honey Sugar Gravy
BEVERAGES	Water Decaf coffee Decaf tea Crystal Light Sugar-free Kool-Aid Veryfine Fruit ₂ O “Light” cranberry juices Skim milk (between meals)	ALCOHOL Regular Soft drinks Caffeinated drinks of any kind Carbonated drinks of any kind* Sweetened fruit drinks Sweetened Fruit Juices Gatorade/Snapple/So-Be Sweetened gourmet coffee drinks Sweetened ice tea

*Carbonation has been shown to remove calcium from bone stores and can cause excess gas

Sample Menu for Stage 4:

- 7:30- 8:00 AM 1 scrambled egg, ½ slice toast with low-fat margarine or spray butter
- 8:30- 9:30 8 oz water or sugar free, non carbonated drink
- 10:00-11:00 8 oz protein drink
- 11:30-12:30 PM 8 oz water or sugar free, non carbonated drink
- 1:00- 2:00 3 tbsp flaked fish, 2 tbsp cooked chopped spinach, ½ of a canned pear
- 2:30- 4:00 8 oz water or sugar free drink
- 4:30- 5:15 4 tbsp diced chicken and rice casserole, 2 tbsp soft cooked green beans, ½ of a canned peach
- 6:00- 7:00 8 oz protein drink
- 7:00-10:00 16 oz water or sugar free, non carbonated drink

* stop all food and beverage at least ½ hour before lying down to sleep.

General Diet Guidelines after your surgery

1. Power Up with Protein!

Protein is essential to the proper healing of your surgical scars and new stomach pouch. Protein helps prevent muscle loss and keeps you healthy as you lose weight. It may also help you avoid the hair loss that can happen with rapid weight loss. To protect that protein, you must consume approximately 60-70 grams of protein every day and exercise according to your surgeon's recommendations.

Below is a list of common high protein foods and their protein content. Note that you may not be able to eat the entire listed portion at one time, but this will give you a good guide to figure out how much protein you are consuming.

Food	Portion	Protein (g)
All lean meats	1 ounce	7
Canned tuna (in spring water)	1 ounce	7
Cheese, cottage (low fat/ fat free)	½ cup	12
Beans (most canned such as kidney)	½ cup	8
Cheese, ricotta (low fat/ fat free)	¼ cup	8
Cheese, mozzarella (low fat/ fat free)	1 ounce	8
Egg	1	8
Non-fat dry milk	1/3 cup	8
No sugar added/light yogurt	6 ounces	6
Sugar free /fat free pudding	½ cup	4

2. Take Your Vitamins And Minerals!

- ☒ Take a complete vitamin/mineral supplement every day for the rest of your life. Start with 2 chewable children's vitamins with minerals for the first 4 months (ex: Flintstones Complete or Bugs Bunny & Iron). Then you may change to an adult complete multi-vitamin with minerals (ex: Centrum Advanced Formula or One-A-Day Maximum). You can take generic equivalents, but be sure to compare the contents to the recommended vitamins to make sure they have adequate nutrients.
- ☒ Take 2 separate doses of 500mg to 600mg liquid or chewable **calcium citrate** (1000-15000 mg) each day to ensure an adequate intake and absorption of calcium.
- ☒ Take vitamin B12 for the rest of your life. B12 can be found in a sublingual (dissolves under the tongue) pill (1000mcg dose taken every other day), once a week nasal spray or monthly injection.

3. Remember your Medications!

If you still have a gallbladder after surgery, you will be given Actigall 300 mg (or equivalent) twice a day. This is to decrease your chances of forming gallstones during the rapid weight loss phase. You will need to take this for approximately 4 months. You will be sent home with a prescription for Prevacid solutabs to aid in preventing ulcers.

4. Become familiar with Label Lingo!

The Nutrition Facts label is a great source of information about the food you are about to purchase or eat. Look at the back of the package and try to purchase things that are low in fat, trans-fat, sugar, and cholesterol. Look for items that have:

- Less than 5g fat per serving
- Less than 10-15g carbohydrates per serving
- No more than 5g sugars per serving

5. Keep portions in control!

When you get started, weigh and measure foods often. As you become more familiar with servings sizes, you can weigh and measure less often. But still do it once in a while to keep you on track.

Weighing and measuring foods at home helps you eyeball portions easily when you eat out. You can

Nutrition Facts	
Serving Size: 1/2 package and 1 teaspoon seasoning	
Servings Per Container: 2	
Amount Per Serving	
Calories	180 <small>Calories from Fat 60</small>
% Daily Value	
Total Fat	7g 11%
Saturated Fat	4g 20%
Cholesterol	0g 0%
Sodium	810mg 34%
Total Carbohydrate	20g 4%
Dietary Fiber	1g 4%
Sugars 2g	
Protein	4g
Vitamin A	0% <small>Calcium 0%</small>
Vitamin C	0% <small>Iron 0%</small>
<small>Noodle Ingredients: Enriched Flour, Partially hydrogenated vegetable oil (contains one or more of the following: canola, soybean, corn, cottonseed, palm), salt</small>	

use your hand as a simple guide.

Thumb tip =
1 teaspoon
Ex: mayonnaise
or margarine

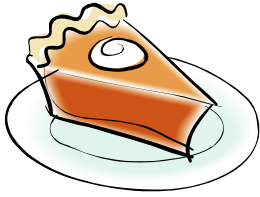


Fist = 1 cup
Ex: two servings of
pasta or oatmeal

Handful = 1 or 2 ounces
of snack food
Ex: 1 ounce nuts = 1 handful
2 ounces pretzels = 2 handfuls



Palm = 3 ounces
Ex: a serving of meat,
cooked



Dumping Syndrome:



Dumping syndrome can occur in two phases. Eating too much sugar may cause "dumping syndrome" in people who have had a gastric bypass. Early dumping syndrome occurs when foods or beverages that are high in sugar – otherwise known as concentrated sweets - are consumed and move too quickly from the stomach into the intestines. This causes water to rush in to the bowel and cause cramping, pain, vomiting, diarrhea, rapid heart rate, and sweating. Other forms of dumping syndrome may result in hypoglycemia causing you to feel weak, sleepy, and fatigued. Symptoms of early dumping syndrome may occur within 45 minutes after a meal.

Late dumping syndrome causes low blood sugar as a result of excessive insulin production in response to sudden emptying of a highly concentrated load into the gut. This is known as hypoglycemia and can cause weakness, sleepiness, profound fatigue, decreased blood pressure and headache. Symptoms may occur up to 2-3 hours after eating.

Treatment:

Dumping syndrome is largely avoidable by limiting or avoiding the foods, fluids and eating behaviors that cause the symptoms. If it does occur, lie flat on your back for 45 minutes to one hour until symptoms resolve. Choose a diet with protein and complex carbohydrates as well as avoiding foods and fluids high in simple sugars and fat are helpful. Consuming smaller, more frequent meals/snacks ever 3-4 hours is beneficial, as well as maintaining no fluid intake for 30 minutes before or after meals.

Sugar is hidden in many forms on the food label. Avoid the following foods and ingredients to avoid dumping:



Ingredients to avoid	Foods to avoid
Corn Syrup Dextrose Confectioner's sugar Granulated sugar Honey Invert sugar Lactose Maltose Mannitol Maple sugar Maple syrup Molasses Sorghum Sorbitol Sucrose Sugar Zylitol	Ice cream Chocolate milk Regular pudding Dried fruits Regular frozen yogurt Canned fruit in syrup Sugary cereals Doughnuts Popsicles Cakes Cookies Pies Jellies Jams Regular soft drinks Regular Kool-Aid Sherbet/Sorbet



Adjustable Laparoscopic Gastric Band Basics:

If you are having a Lap-Band, the surgeons would like for you to follow the same basic diet progression after surgery. Your maintenance diet will differ slightly. This page and the one following explain the adjustable laparoscopic gastric band specifically. (More about adjustable laparoscopic gastric band in the Section III – Adjustable Laparoscopic Gastric Banding)

Day One: Clear liquids only such as

Broth	apple juice	sugar free popsicles
Jell-o	un-sweet decaf tea	water or sugar free flavored waters

Sip these fluids very slowly throughout the day. Usually about 4 ounces per hour -it may difficult to swallow just after surgery because of the swelling around the band

Weeks 1-2: Clear and full liquids only. Full liquids are one that you cannot see through. At this stage in your diet continue your clear liquids and water but now you may add other liquids such as:

Skim milk	Tomato juice	high-protein liquid supplement
Sugar Free Pudding	Creamed soups	Yogurt (no sugar added plain or vanilla)

Make sure you use skim milk and no sugar added or sugar-free plain or vanilla yogurt.

Alternate between clear liquids and full liquids.

Try to get a total of 24oz high-protein liquid supplement (for 60-70g protein) each day. Some examples of protein supplements include: Isopure, Mioplex, EAS, Jay Robbs, and Sugar Free Carnation Instant Breakfast.

If you have 4oz over one hour, it will take 6 hours intermittently throughout your day to reach your goal of 24oz of high-protein liquid supplement. (4 oz/hr X 6 hrs = 24oz)

Weeks 3-4: Pureed or Blended foods such as baby food

- pureed or very soft vegetables
- canned meats- tuna and chicken
- blended soups and casseroles
- applesauce
- cream of wheat/oatmeal/grits

Meals can be up to 4oz and include any of above mentioned foods. Continue protein drinks between meals.

BEWARE: although you may feel okay to eat solid foods please do not do so. If you eat solids too soon you may dislocate the band and develop a larger upper pouch.

5th week – transition to a more regular diet and follow a regular diet until your first scheduled adjustment

- Meats may be difficult to tolerate unless ground or chopped and very thoroughly chewed.
- Use only sugar-free drinks and other products
- Eat only ½ cup (4oz) of food at a time, pay attention to feelings of fullness

Once you have started to eat a regular diet, be sure to set aside three mealtimes per day and eat solid foods only at these times. It is important to eat nourishing foods and to avoid the habit of snacking. Eating often throughout the day may keep you from losing weight because you will be able to avoid feeling full and end up consuming enough calories to maintain your initial weight. Individuals who continuously munch on crackers, chips, and other foods have not only failed to lose, but have even gained weight.**

Quick Notes:

- Drink ONLY low calorie or zero-calorie liquids
- ✚ NO doughy or sticky foods such as soft white bread, coconut, chips, popcorn, or dried fruit – these foods may obstruct the band.
- ✚ If having very fibrous foods such as broccoli, asparagus, celery, artichokes, pineapple, etc., cook very thoroughly and cut into small pieces. If this is not done, these foods could obstruct the band.
- ✚ It may be difficult to digest nuts, especially almonds and peanuts.
- ✚ Drink 48-64 oz of water each day. Avoid gulping water – just sip slowly and gradually.
- Be careful of over eating, especially just after surgery. If you overeat you may vomit and that may cause the stomach to slip through the band.
- ✚ While your diet begins with liquids it should not continue to be based on liquid. The adjustable laparoscopic gastric band will have no effect if you only consume liquids – they can pass right through the restricted stomach, you will not feel full, and will not lose weight.
- ✚ Chew thoroughly (15-20 times per bite).
- ✚ Stop eating as soon as you feel full.
- Keep fluids and solids separated (no drinking with meals).
- ✚ Exercise daily.
- Take a chewable adult multivitamin with iron daily.
- ✚ Take 500mg calcium citrate supplement two times a day.

Additional Tips

Listed below are some helpful guidelines that will enable you to adapt to your weight loss surgery and new lifestyle more easily:

1. Stop eating as soon as you feel full!

Eating past the feeling of fullness could cause vomiting and/or stretch your stomach's capacity.

If you start vomiting and it continues throughout the day, stop eating solid foods and just sip clear liquids (sugar free gelatin, clear juice, broth, and decaf tea). The vomiting may indicate that your outlet is blocked. If off-and-on vomiting continues for more than 24 hours, call your doctor. Most vomiting episodes can be prevented. The usual causes of vomiting are:

- ❑ Eating too fast.
- ❑ Eating too much at a meal.
- ❑ Drinking liquids immediately before or after a meal.
- ❑ Lying down after a meal.
- ❑ Eating foods that don't agree with you.

Many things can cause discomfort and vomiting. Sometimes it may be a specific food. However you should be careful not to avoid a food just because you vomited once after eating it.

2. Eat slowly.

- Avoid putting more food in front of you than you can eat. Use a salad plate and take small portions.
- Set aside 30 to 45 minutes to eat each meal.
- Make an EAT SLOWLY sign and place it on the table in front of you.
- ❑ Explain to family members why you must eat slowly, so they will not urge you to eat faster. Do not let other people tell you that you haven't eaten enough.
- ❑ Take small bites of food. Try eating with a baby spoon.
- ❑ Pay attention to taste. Learn to enjoy each bite noting its flavor, texture, and consistency.
- ❑ Chew food thoroughly. Pause between each bite to evaluate whether you are capable of eating anything else. Remember to chew each bite approximately 30 times until the food feels "pureed" in your mouth.

3. Avoid outside distractions so that you can concentrate on enjoying the meal.

Turn off the television. Put books and magazines away. Eat all meals sitting down preferably at the kitchen or dining room table. Make mealtime a relaxed and enjoyable experience.

4. Prepare low-fat foods.

Try to keep your fat intake below 20 - 30 grams. Read labels carefully. Watch for hidden fats. Avoid fried foods, gravies, and high-fat seasonings (butter, lard, bacon, grease). Experiment with herbs, spices, and bouillon to add flavor without adding fat or calories.

The following guidelines will help you prepare and/or select low-fat foods:

- Take the skin off all poultry before eating.
- ❑ Purchase dairy products that are made from skim or non-fat milk.
- ❑ Low-fat luncheon meats contain less than 2 grams of fat per ounce.
- ❑ Beware of fatty snack foods --- even popcorn can be a high fat snack.

Your Guide to Dining Out:

Eating in restaurants with family and friends is an important social experience you should not have to avoid. The following guidelines will help you make it an enjoyable experience while maintaining your new health conscious eating habits.

1. Planning Ahead

Determine your menu selections before leaving home. If this is not possible, have a back-up plan, such as ordering the fish of the day, vegetable plate, a grilled chicken entree, or baked potato and a vegetable. Impulse ordering will be more difficult if your plan is firmly in place.

Order first. This will allow you to avoid the influence of others. Remember, when dining with friends, it may be difficult to refuse high-fat foods. Eat small amounts, if any, of these foods and concentrate on eating the low-fat foods offered.

Beware of fatty vegetables and salads. Many of the salads contain mayonnaise or other high-fat dressings. Also, many vegetables will have additional fats added to them during preparation. Be sure to ask how the vegetables are seasoned.

2. Become a Menu Maniac:

The descriptions of menu items can help you make good decisions when choosing your meal.

Avoid items described with words like creamy, crispy, fried, breaded, bisque, Alfredo, AuGratin, tempura, or prime. Look for and **choose** items described as steamed, broiled, stewed, stir-fried, poached, blackened, fresh, and in-own-juices.

3. Special Requests:

Now is not the time to be shy. You can get food prepared the way you want it prepared. Question the server about food preparation methods and make special requests when necessary. Restaurants are generally happy to make substitutions in order to keep your patronage. Simply be polite and assertive. Also remember that some restaurants may actually carry low-fat but do not list them on the menu. Some restaurants may allow you to order smaller portions – maybe the “half” or “lunch” portion.

4. Portion Control:

You don't have to take measuring cups and spoons to the restaurant in order to monitor your portions. Typically, most restaurants will serve much larger portions than are required even for weight maintenance. Here are a few suggestions for dealing with this scenario:

- Avoid wine or alcohol with dinner. It stimulates your appetite and can decrease willpower. Select ice water or unsweetened juices garnished with fruit wedges.
- ❏ DO NOT clean your plate. Ask for a doggie bag before you start to feel full. This way you get to enjoy the meal twice. If you can't resist the temptation of cleaning your plate, ask for the doggie bag before you begin to eat. This will allow you to remove the food immediately and still not waste anything.
- ❏ Eat Slowly. It takes approximately 20 minutes for your brain to be informed that you have eaten. If you are finished eating before 20 minutes, you will most likely still feel hungry. At least allow 20-30 minutes to pass before you grab for that second serving.
- ❏ Order menu items a-la-carte or order appetizers in place of a larger meal. Portions are usually smaller and you can order exactly what you want without needing to take any leftovers home. Order a child-sized portion if possible, but do not order from the kid's menu – remember these items are usually high in fat.
- ❏ Share your meal with another diner. This is a good weight management technique and will allow you to save money at the same time!
- ❏ Order fruit for dessert. If fruit is not available, wait until you get home to have a low calorie, sugar-free dessert, such as sugar-free gelatin or fat-free sugar-free pudding.

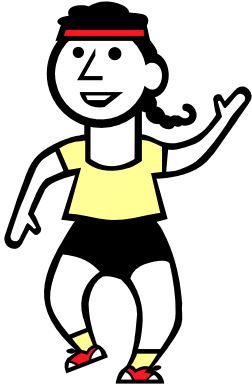
Cooking the Low-Fat Way

Eating a low-fat, low-cholesterol diet does not mean you have to give up your favorite recipe. Often simple food substitutions can change a dish from high-fat, high-calorie to a heart-healthy one. When a recipe calls for sautéing vegetables in oil or other fat, you can leave out the fat. Just spray the pan with non-stick spray and add a small amount of water or fat-free broth, steaming the vegetables until they soften.

- ❏ If you want a more buttery flavor in baked goods, add 1/4 - 1/2 tsp of butter extract to the recipe.
- ❏ To make fat-free or reduced fat baked goods, substitute equal amounts of applesauce or non-fat plain yogurt for the oil or margarine the recipe calls for (ex: Recipe calls for 1/2 cup butter or margarine - you should substitute 1/2 cup applesauce or 1/2 cup plain non-fat yogurt)
- ❏ In recipes calling for evaporated milk, cream, or whole milk use evaporated skim milk instead.
- ❏ When cooking with ground beef choose ground lean turkey or 90% or higher lean ground beef instead of ground chuck.
- ❏ Don't fry anything! Batter/breading acts like a fat sponge. Instead spray items with non-stick spray and bake them. Try sprinkling paprika, Old Bay Seasoning, dill, or other herbs on before you bake.
- ❏ Air-popped popcorn cooked in a microwave popper can be seasoned in the same way. First, spray the popped corn with non-stick spray, then sprinkle on butter or cheese flavored sprinkles or Parmesan cheese.
- ❏ A significant amount of fat may be skimmed from meat juices, soups, and stews after refrigeration.
- ❏ Broil, boil, bake, poach, or roast without added fat. Use a rack when roasting meat, poultry, or fish.
- ❏ Tenderize lean cuts of meat by cooking them slowly in liquid or marinating them before cooking. Pounding, grinding, and slicing across the grain will also tenderize meat.



Exercise!



Exercise is an important part of your treatment and your trek to losing weight. Not only does exercise burn calories, it can relieve stress; reduce feelings of depression and anxiety.

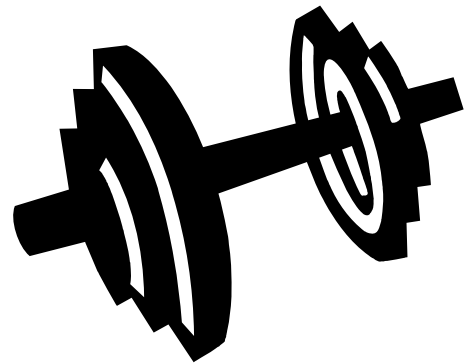
Exercise is a great alternative activity when you feel like eating when you're not actually hungry.

Even moderate amounts of exercise can be beneficial.

Develop a daily habit of some form of sustained exercise – walking, swimming, biking, or spending time on the stationary bike or elliptical machine at a gym.

Get more out of each day:

- ✦ park your car further from your destination
- ✦ get off public transportation a few stops before your destination
- ✦ use stairs instead of elevators
- ✦ walk instead of riding whenever feasible
- ✦ leave something you need for lunch in the car so you have to walk to your car during your lunch break
- ✦ Learn to enjoy physical activities that you've missed, such as swimming, skiing, tennis, and team-sports.
- ✦ If it has been a while since you have been able to exercise, start slow. Begin with as little as 5 minutes and add more time each week until you reach 30 minutes a day. Exercising with a buddy and getting involved with a support group can help with motivation!



Notes from Those Who Know!

A study of patients who have undergone obesity surgery and were able to maintain better than 74% weight loss (patients were greater than 3 years post-op - average 7 years with an average weight loss of 108 pounds). Of those surveyed who were not successful, there was an absence of one or more habits usually lack of exercise or not following dietary guidelines.

- ❏ Eat 3 meals and 2 snacks each day
- ❏ Drink 40 – 60 oz of water each day, avoiding carbonated beverages, juices and sweetened beverages, caffeinated beverages, and alcohol.
- ❏ Take your vitamins
- ❏ Multivitamin with iron (1 every day)
- ❏ Calcium citrate (500mg twice per day)
- ❏ B12 (1000mcg every other day)
- ❏ Get at least 7 hours of sleep each night!
- ❏ Exercise for 30-40 minutes at least 4 times each week
- ❏ Weigh weekly
- ❏ Accept personal responsibility for your weight loss

Good luck on the beginning of your new lifestyle. Enlist the aid of your family or the support of household members in adhering to your new eating practices. Please feel free to call our office with any questions as well as involving other members of your support group.

Each and every day is a commitment to your new lifestyle. You should dedicate yourself each day to making healthy choices in the content and quantity of what you eat. This dedication and use of the control given to you by this surgery is the key to the continuation of your leaner, healthier, and happier life.

SECTION III

ADJUSTABLE LAPAROSCOPIC GASTRIC BAND

Laparoscopic Adjustable Gastric Banding

Seriously overweight patients who have never been able to keep pounds off with diet pills, special meals, or other weight loss programs now have a minimally invasive surgery option that significantly reduces food intake. The adjustable laparoscopic gastric band creates an earlier feeling of fullness and limits food consumption. The adjustable laparoscopic gastric band, which is adjustable and reversible, is placed laparoscopically without cutting or stapling of the stomach or gastrointestinal rerouting to bypass normal digestion. To date, more than 100,000 patients worldwide have undergone the adjustable laparoscopic gastric band procedure. The Food and Drug Administration approved the adjustable laparoscopic gastric band in June 2001.

The Adjustable Laparoscopic Gastric Band Advantage

Compared to gastric bypass and stomach stapling, the adjustable laparoscopic gastric band is the safest, least invasive and only adjustable obesity surgery option in the U.S. It has been the standard of care worldwide, with over 100,000 procedures performed to date.

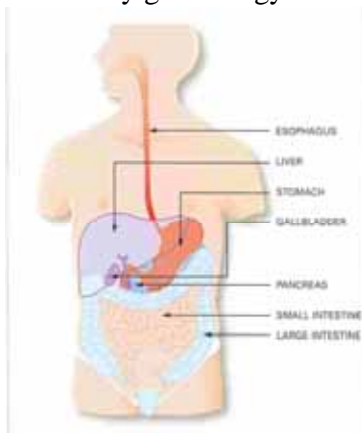
- Adjustable laparoscopic gastric band surgery is the **least invasive and least traumatic** procedure. Unlike gastric bypass and stomach stapling, it does not require cutting, stapling or rearranging of the stomach or intestines. The advantages of the minimally invasive approach include reduced patient pain, shorter hospital stay and quicker recovery.
- The Adjustable laparoscopic gastric band is the only **adjustable** Bariatric procedure available in the United States, allowing for individualized patient treatment and slow, steady, long-term weight loss. Other obesity surgeries are arguably irreversible, permanent, and certainly not adjustable to patients' needs.

Least Invasive Obesity Surgery

Like a wristwatch, the band is fastened around the upper stomach to create a new, tiny stomach pouch. As a result, patients experience an earlier sensation of fullness and are satisfied with smaller amounts of food. Since there is no cutting, stapling, or stomach rerouting involved in the adjustable laparoscopic gastric band procedure, it is considered the least traumatic of all weight loss surgeries. The surgeon makes several tiny incisions and uses long, slender instruments to implant the device. By avoiding the large incision of open surgery, patients generally experience less pain and scarring.

How the adjustable laparoscopic gastric band works

Your body gets energy from food while it passes through the alimentary canal. This consists of the mouth,



the esophagus, the stomach, and the small and large intestines. Digestion starts in the mouth with chewing and the addition of saliva. After the food passes through the esophagus, this process continues in the stomach. The stomach then provides temporary storage for food. Gastric juices, which contain enzymes, break down the food. This way, energy can be carried through the body by the blood.

The adjustable laparoscopic gastric band is a silicone elastomer hollow ring filled with saline and placed around the upper part of the stomach. This creates a new small stomach pouch, with the larger part of the stomach below the band. This way, the food storage area in the stomach is reduced. The pouch above the band can hold only a small amount of food. The band also controls the stoma (stomach outlet) between the two parts of the stomach.

The size of the opening between the two parts of the stomach controls the flow rate of the food from the upper to the lower part of the stomach. This lets you feel full sooner. The feeling also lasts longer.

To change the size of the stoma, the inner surface of the band can be adjusted by adding or removing saline. This process is called inflating (fill) or deflating (unfill). Saline is a salty solution like other fluids in your body.



The band is connected by a tube to an access port placed beneath the skin during surgery. Later, the surgeon can control the amount of saline in the band by piercing the access port through the skin with a fine needle. If the band is too loose and weight loss too small, adding more saline can reduce the size of the stoma. If the band is too tight, the surgeon will remove some saline. This too can be done without more surgery. Being able to adjust the band is a unique feature of the adjustable laparoscopic gastric band and is a normal part of the follow-up. If adjusting the band does not help you lose weight the way you and your doctor want it to, or if the band is still too tight, another surgery may be needed. The band position on the stomach can be changed or the size of the upper stomach pouch can be reduced.

How much weight will you lose with the adjustable laparoscopic gastric band?

The average weight loss in the United States clinical study was approximately 36-38% of excess weight, 2 and 3 years after surgery. A few people lost up to 100% of their excess weight, some did not lose any weight, and a few got heavier.

Assume that you weigh 330 pounds. Also assume that for your height your ideal weight is 155 pounds. That means you weigh 175 pounds more than your ideal weight. Thirty eight percent of 175 pounds is 66.5 pounds leaving you at a weight of 263 pounds.

Some people lose more than others. You may never reach your ideal weight. At the same time, chances are good that your health will improve, along with your self-image.

What if the adjustable laparoscopic gastric band needs to be removed?

If there is a problem with the band, or if you can't lose enough weight or adjust to the new eating habits, your surgeon may decide to remove the band. That decision will come after your surgeon consults with you. Removing the adjustable laparoscopic gastric band will most likely restore your stomach to its original form. Also, the digestive tract will again function normally. Please keep in mind, though, that when the band is removed, your weight will likely increase.

The adjustable laparoscopic gastric band indications

The adjustable laparoscopic gastric band is not right for everyone. You and your surgeon should work together to decide if this is the right treatment for you. Here are some of the things your surgeon will consider.

The adjustable laparoscopic gastric band may be right for you if:

- You are an adult (at least 18 years old)
- Your BMI is 40 or higher or you weigh at least twice your ideal weight or you weigh at least 100 pounds (45 kilos) more than your ideal weight
- You have been overweight for more than 5 years
- Your serious attempts to lose weight have had only short-term success
- You do not have any other disease that may have caused you to be overweight
- You are prepared to make major changes in your eating habits and lifestyle
- You are willing to continue working with the specialist who is treating you
- You do not drink alcohol in excess

If your BMI is less than 40, the adjustable laparoscopic gastric band may not be right for you. On the other hand, your surgeon may consider it if you have health problems that are related to obesity. Your surgeon may also have other criteria he or she uses. Ask him or her to discuss the criteria with you.

CONTRAINDICATIONS

The adjustable laparoscopic gastric band is not right for you if:

- You have an inflammatory disease or condition of the gastrointestinal tract, such as ulcers, severe esophagitis, or Crohn's disease
- You have severe heart or lung disease that makes you a poor candidate for surgery
- You have some other disease that makes you a poor candidate for surgery
- You have a problem that could cause bleeding in the esophagus or stomach. That might include esophageal or gastric varices (a dilated vein). It might also be something such as congenital or acquired intestinal telangiectasia (dilation of a small blood vessel)
- You have portal hypertension
- Your esophagus, stomach, or intestine is not normal (congenital or acquired). For instance you might have a narrowed opening
- You have or have experienced an intra-operative gastric injury, such as a gastric perforation at or near the location of the intended band placement
- You have cirrhosis
- You have chronic pancreatitis
- You are pregnant. (If you become pregnant after the adjustable laparoscopic gastric band has been placed, the band may need to be deflated. The same is true if you need more nutrition for any other reason, such as becoming seriously ill. In rare cases, removal may be needed)
- You are addicted to alcohol or drugs
- You are under 18 years of age
- You have an infection anywhere in your body or one that could contaminate the surgical area
- You are on chronic, long-term steroid treatment
- You cannot or do not want to follow the dietary rules that come with this procedure
- You might be allergic to materials in the device
- You cannot tolerate pain from an implanted device
- You or someone in your family has an autoimmune connective tissue disease. That might be a disease such as systemic lupus erythematosus or scleroderma. The same is true if you have symptoms of one of these diseases.

Some surgeons say patients with a “sweet tooth” will not do well with the adjustable laparoscopic gastric band. If you eat a lot of sweet foods, your surgeon may decide not to do the procedure. The same is true if you often drink milkshakes or other high-calorie liquids.

Your motivation is key

Your surgeon will not do the operation unless he or she knows you understand the problems your excess weight is causing. Also, your surgeon will make sure you know you have responsibilities. These include new eating patterns and a new lifestyle. If you are ready to take an active part in reducing your weight, your surgeon will consider the treatment. First, though, your surgeon will want to make sure you know about the advantages, disadvantages, and risks involved.

RISKS, COMPLICATIONS, AND ADVERSE EVENTS YOU NEED TO KNOW ABOUT

All surgical procedures have risks. When you decide on a procedure, you should know what the risks are. Talk with your surgeon in detail about all the risks and complications that might arise. Then you will have the information you need to make a decision.

What are the general risks?

Using the adjustable laparoscopic gastric band includes the same risks that come with all major surgeries. There are also added risks in any operation for patients who are seriously overweight. You should know that death is one of the risks. It can occur any time during the operation. It can also occur as a result of the operation. Death can occur despite all the precautions that are taken. There is a risk of gastric perforation (a

tear in the stomach wall) during or after the procedure that might lead to the need for another surgery. In the U.S. clinical study this happened in 1% of the patients. There were no deaths during or immediately after surgery in the U.S. study. Your age can increase your risk from surgery. So can excess weight. Certain diseases, whether they were caused by obesity or not, can increase your risk from surgery. There are also risks that come with the medications and the methods used in the surgical procedure. You also have risks that come from how your body responds to any foreign object implanted in it. Published results from past surgeries, however, do show that adjustable laparoscopic gastric band surgery may have fewer risks than other surgical treatments for obesity.

Patients can experience complications after surgery. Most complications are not serious but some may require hospitalization and/or re-operation. In the U.S. clinical study, with 3-year follow-up reported, 88% of the 299 patients had one or more adverse events, ranging from mild, moderate, to severe. Nausea and vomiting (51%), gastroesophageal reflux (regurgitation) (34%), band slippage/pouch dilatation (24%) and stoma obstruction (stomach-band outlet blockage) (14%) were the most common post-operative complications. In the study, 25% of the patient had their band systems removed, two-thirds of which were following adverse events. Esophageal dilatation or dysmotility (poor esophageal function) occurred in 11% of patients, the long-term effects of which are currently unknown. Constipation, diarrhea and dysphagia (difficulty swallowing) occurred in 9% of the patients. In 9% of the patients, a second surgery was needed to fix a problem with the band or initial surgery. In 9% of the patients, there was an additional procedure to fix a leaking or twisted access port. The access port design has been improved. Four out of 299 patients (1.3%) had their bands erode into their stomachs. These bands needed to be removed in a second operation. Surgical techniques have evolved to reduce slippage. Surgeons with more laparoscopic experience and more experience with these procedures report fewer complications.

Adverse events that were considered to be non-serious, and which occurred in less than 1% of the patients, included: esophagitis (inflammation of the esophagus), gastritis (inflammation of the stomach), hiatal hernia (some stomach above the diaphragm), pancreatitis (inflammation of the pancreas), abdominal pain, hernia, incisional hernia, infection, redundant skin, dehydration, diarrhea (semi-solid bowel movements), abnormal stools, constipation, flatulence (gas), dyspepsia (upset stomach), eructation (belching), cardiospasm (an obstruction of passage of food through the bottom of the esophagus), hematemesis (vomiting of blood), asthenia (fatigue), fever, chest pain, incision pain, contact dermatitis (rash), abnormal healing, edema (swelling), paresthesia (abnormal sensation of burning, prickly, or tingling), dysmenorrhea (difficult periods), hypochromic anemia (low oxygen carrying part of blood), band system leak, cholecystitis (gallstones), esophageal ulcer (sore), port displacement, port site pain, spleen injury, and wound infection. Be sure to ask your surgeon about these possible complications and any of these medical terms that you don't understand.

There is a chance the device will need to be removed

The adjustable laparoscopic gastric band is a long-term implant, but it may have to be removed or replaced at any time. For instance, the device may need to be removed to manage any adverse reactions you might have. The device may also need to be removed, repositioned or replaced if you aren't losing as much weight as you and your doctor feel you should be losing.

What are the specific risks and possible complications?

Talk to your doctor about all of the following risks and complications:

- Ulceration
- Gastritis (irritated stomach tissue)
- Gastroesophageal reflux (regurgitation)
- Heartburn
- Gas bloat
- Dysphagia (difficulty swallowing)
- Dehydration

- Constipation
- Weight regain
- Death

Laparoscopic surgery has its own set of possible problems. They include:

- Spleen or liver damage (sometimes requiring spleen removal)
- Damage to major blood vessels
- Lung problems
- Thrombosis (blood clots)
- Rupture of the wound
- Perforation of the stomach or esophagus during surgery

Laparoscopic surgery is not always possible,. The surgeon may need to switch to an “open” method due to some of the reasons mentioned here. This happened in about 5% of the cases in the U.S. Clinical Study.

There are also problems that can occur that are directly related to the adjustable laparoscopic gastric band. They include:

- The band can spontaneously deflate because of leakage. That leakage can come from the band, the access port, or the tubing that connects them.
- The band can slip
- There can be stomach slippage
- The stomach pouch can enlarge
- The stoma (stomach outlet) can be blocked
- The band can erode into the stomach

Obstruction of the stoma can be caused by:

- Food
- Swelling
- Improper placement of the band
- The band being over-inflated
- Band or stomach slippage
- Stomach pouch twisting
- Stomach pouch enlargement

There have been some reports that the esophagus has stretched or dilated in some patients. This could be caused by:

- Improper placement of the band
- The band being tightened too much
- Stoma obstruction
- Binge eating
- Excessive vomiting

Patients who have a weaker esophagus may be more likely to have this problem. A weaker esophagus is one that is not good at pushing food through. Tell your surgeon if you have difficulty swallowing. Then your surgeon can evaluate this.

Weight loss with the adjustable laparoscopic gastric band is typically slower and more gradual than with some other weight-loss surgeries. Tightening the band too fast or too much to try to speed up weight loss should be avoided. The stomach pouch and/or esophagus can become enlarged as a result. You need to learn how to use your band as a tool that can help you reduce the amount you eat.

Infection is possible. Also, the band can erode into the stomach. This can happen right after surgery or years later, although this rarely happens.

Complications can cause reduced weight loss. They can also cause weight gain. Other complications can result that require more surgery to remove, reposition, or replace the band.

Some patients have more nausea and vomiting than others. You should see your physician at once if vomiting persists. Rapid weight loss may lead to symptoms of:

- Malnutrition
- Anemia
- Related complications

It is possible you may not lose much weight or any weight at all. You could also have complications related to obesity.

AFTER ADJUSTABLE LAPAROSCOPIC GASTRIC BAND SURGERY

Once the anesthesia has worn off, you may feel some pain. This pain can usually be relieved with ordinary painkillers. The hospital staff will help you get out of bed and start moving as soon as possible. This will help prevent blood clots, respiratory problems, and bedsores.

On the day after the surgery, you will be given an X-ray. This is so your health team can see that the adjustable laparoscopic gastric band is in the right place. It is also to see that the new stomach outlet is open. You may be asked to swallow a liquid that can be seen on X-ray.

After a laparoscopic gastric band surgery, you will normally be discharged that evening. The hospital stay may be longer after the open procedure or if there are complications. If there are no complications, you should be able to resume normal activities within a week or two after the surgery.

Eating and drinking after the operation (*See Section II – Diet*)

After your surgery, you will need a new diet. You should discuss this in detail with your surgeon and/or dietitian. They can help you learn and get used to the changes in lifestyle and eating habits you need to make.

It is very important to follow the eating and drinking instruction right from the start after the operation. That's because you must allow the new stomach structure to heal completely and in the right position. It may take a month or more for this to happen. It is important, especially in the early weeks, not to stretch the small stomach pouch above the band. Vomiting can do this, so it is important not to vomit. Vomiting can increase the chance of stomach tissue slipping up through the band.

ADJUSTABLE LAPAROSCOPIC GASTRIC BAND ADJUSTMENTS

With the adjustable laparoscopic gastric band, the band can be adjusted to meet your specific needs. That is one of its more attractive aspects. This feature allows you and your surgeon to find the right level of restriction just for you!

When first placing it, your surgeon usually leaves the band empty or only partially inflated. This lets you get acquainted with your band during the first few weeks after surgery. It also lets healing occur around the new band site.

These first few weeks are a critical time. You need to avoid vomiting. You also need to avoid putting pressure on your new small stomach above the band. The first time the band is adjusted is usually 4 to 6 weeks after your surgery. The exact time will vary. You and your surgeon will decide when the right time is for your band adjustment. To determine how ready you are for a band adjustment, your surgeon will consider:

- Your weight loss
- The amount of food you can comfortably eat
- Your exercise routine
- How much fluid is already in your band

Being able to adjust the adjustable laparoscopic gastric band gives you and your surgeon control. If the band is too tight, your surgeon can “loosen” it by taking out some of the fluid. (This is referred to as an “un-fill”) If the band is too loose, your surgeon can tighten it. Your surgeon does this by injecting fluid. (This is a fill). Only a trained clinician should adjust your band. Never let an untrained clinician do it. Never let a non-medical person do it. And never try to adjust your own band. You could cause yourself adverse reactions. You could also damage your band.

To adjust your band, the clinician injects saline into the self-sealing access port. This port is located just under your skin. The band can also be adjusted by removing saline from the port. This is done with a special fine needle. You may feel a pricking sensation when this is done. The feeling is similar to when you give blood.

Adjustments are done either in the hospital or in a doctor’s office. The clinician may use fluoroscopy to assist in locating the access port. The surgeon may also use it to guide the needle into the port and to view inserting the needle. It is also used after the band has been adjusted to evaluate your pouch size and stoma size.

To get the best results, you may need more than one adjustment. Each one will range from 0.2 cc to 2 cc of fluid. The most the band can hold is 4 cc. The exact amount of fluid required to make the stoma the right size is unique for each person. An ideal “fill” should be just tight enough to let you **gradually** lose weight. That means you should still be able to eat enough to get the nutrients that you need while still reducing the overall amount you can eat.

The adjustable laparoscopic gastric band is meant to offer you a way to obtain steady and safe weight loss. Don’t be in a hurry to have an adjustment before you’re ready. To work, the band needs your participation. Your success will depend on you and on the partnership between you and your clinicians.

YOUR NEW NUTRITION PLAN

When you can eat solid foods without problems, you need to pay close attention to your diet. Liquids will pass through the reduced stomach pouch quickly and will not make you feel full. You should avoid high-calorie drinks from this point on. Drink water, broth, tea, and coffee (without sugar).

Too much food or big chunks of food can block the stomach pouch outlet. You can avoid this problem by chewing food well and eating small bites at a time. Eat only three small meals a day. Make sure that these meals contain adequate nutrients. A healthy meal has vegetables, fruit, meat, bread, and/or dairy products.

A general guide is included in this booklet under **Good Food Choices** and can help you create good and healthy meals that contain adequate nutrients but little sugar and fat. Also, ask your surgeon and/or dietitian about your food choices.

10 important rules

Here are ten rules for eating, drinking, and exercise that will help you get the best results you can with the adjustable laparoscopic gastric band. How willing you are to follow a new way of eating is key to making the operation a success.

1. Eat only three small meals a day
2. Eat slowly and chew thoroughly (30 times per bite)
3. Stop eating as soon as you feel full

4. Do not drink while you are eating
5. Do not eat between meals
6. Eat only good quality foods
7. Avoid fibrous food
8. Drink enough fluids during the day
9. Drink only low-calorie liquids
10. Exercise at least 30 minutes a day

Why the rules are important and how to make them work

Rule 1: Eat only three small meals a day

The adjustable laparoscopic gastric band creates a small stomach pouch that can hold only about half a cup (3 to 4 ounces) of food. If you try to eat more than this at one time, you may become nauseated. You may also vomit. **If you routinely eat too much, the small stomach pouch may stretch.** That will cancel the effect of the operation. Frequent vomiting can also cause certain complications, such as band slippage. You need to learn how much your stomach pouch can hold comfortably and then not exceed this amount.

Rule 2: Eat slowly and chew thoroughly

Food can pass through the new stoma only if it has been “chopped” into very small pieces. **Always remember to take more time for your meals and chew your food very well.**

Rule 3: Stop eating as soon as you feel full

Once your stomach is full, your body receives a signal that you have eaten enough. It takes time, though, for you to **become aware of this signal.** **If you hurry your meal, you may eat more than you need.** This can lead to nausea and vomiting. Take time over your meal. Try to recognize the feeling of fullness, then stop eating at once.

Rule 4: Do not drink while you are eating

This operation can work only if you eat solid food. If you drink at mealtimes, the food you have eaten becomes liquid. Then the effectiveness of the adjustable laparoscopic gastric band is greatly reduced. **You should not drink anything for 30 minutes before or after a meal.** That way you can keep the feeling of fullness as long as possible.

Rule 5: Do not eat between meals

After a meal, do not eat anything else until the next meal. Eating snacks between meals is one of the major reasons for weight-loss failure. It is very important to break this habit.

Rule 6: Eat only good quality foods

With the adjustable laparoscopic gastric band in place, you should be able to eat only a small amount. So the food you eat should be as **healthy as possible.** **Do not fill your small stomach pouch with “junk” food that lacks vitamins and other important nutrients.** Your meals should be high in protein and vitamins. Fresh vegetables, fruit, meat, and cereals are good foods to choose. Foods high in fat and sugar are not. You may eat apples and oranges, but try to avoid orange juice and apple juice. **Ask your doctor or dietitian before you take any vitamin supplements.**

Note: solid food is more important than liquid. The adjustable laparoscopic gastric band will have little or no effect if you eat only liquid food. Liquid food passes through the stomach outlet very quickly and does not make you feel full.

Rule 7: Avoid fibrous food

Food such as asparagus that contains many fibers can block the stoma. That’s because you can’t chew this food well enough to break it up into small pieces and your saliva can’t break it down. **Fibrous food should be avoided.** If you would like to eat asparagus or other fibrous foods once in a while, then you must be sure to cook them well, cut them into very small pieces first and then chew thoroughly.

Rule 8: Drink enough fluids during the day

If you lose weight, your fat content will drop. This results in waste products. You will need to drink large amounts of liquid every day in order to urinate more and excrete these waste products from your body. Individual needs will vary, but you should drink at least 6-8 glasses of water a day. **Remember: you should only drink water, decaf tea, or decaf coffee (without milk or cream and sugar). Also, keep your food and drinks completely separate during the day.**

Rule 9: Drink only low-calorie liquids

Drinks, including those containing calories, simply run through the narrow outlet created by the band. If you drink liquids high in calories, you will lose little weight, even if you otherwise follow your diet.

Rule 10: Exercise at least 30 minutes a day

This rule is just as important as the other nine rules. Since physical exercise consumes energy and burns calories, it is very important to successful weight loss.

Exercise can help improve your general health. Your size may make it hard for you to exercise as much as you should. But get started, even if it is a little at first. The more weight you lose, the easier it should get. **Start with simple exercises**, such as walking and swimming. **Gradually expand your program** to include more vigorous forms of exercise such as cycling, jogging, and aerobics. Increase your activity level in the course of daily living. For example, stand rather than sit, walk rather than stand, be outside rather than inside, walk rather than drive, climb the stairs rather than use the elevator, etc.

Important: Always check with your doctor about the amount and type of exercise that is best for you.

Note: Although these rules restrict your food intake and the types of food you are able to eat, make sure to keep your diet as varied and balanced as possible.

Good food choices

Use this section to help you plan what you eat. You may choose what you would like from each of these food groups each day:

Fruit and vegetables

- 1 to 2 servings of fresh fruit daily
- 2 to 3 servings of fresh vegetables daily

Bread and cereals

- 1 small portion of corn flakes for breakfast
- 1 to 2 slices of toasted whole wheat or rye bread each day (if you want, you can spread just a little margarine or butter on the bread)

Meat, fish, poultry, eggs

- 1 oz to 2 oz of meat, fish, or poultry or one egg each day (remove all visible fat from the meat. Remove the skin from poultry. Prepare the meat in ways that need very little fat. Grilling, steaming, microwaving, or boiling are all good ways to do that)

Dairy products

Milk and yogurt are calories in liquid form. In theory, then, they should be avoided. But these types of food have calcium. That makes them an important part of a healthy daily diet. Choose a maximum of 2 cups of skimmed milk or low-fat, no sugar added yogurt and 1 oz of cheese a day.

Fats

Restrict the use of fat to 3 to 4 teaspoons of margarine, butter, or oil per day. You can have low-fat salad dressings and mayonnaise in moderation.

Drinks

Drink as many calorie-free liquids per day as you wish. Suitable drinks are:

- decaf tea or decaf coffee (black with low-calorie sweetener)
- water
- non-carbonated beverages containing few or no calories
- clear soup

Some doctors have reported that carbonated beverages may contribute to enlargement of the small pouch and should be avoided.

Foods to avoid

Some foods have a concentrated supply of calories with little nutritional value and should be avoided as much as possible. They include:

Sugar and foods containing large quantities of sugar, such as:

- high-calorie soft drinks
- syrups
- cakes
- biscuits
- sweets
- jam
- marmalade
- honey

High-fat foods including

- chocolate
- chips
- pies
- pastries
- alcoholic drinks should be consumed in moderation, such as a glass of wine or less per day

FREQUENTLY ASKED QUESTIONS

Q: Will I be sick a lot after the operation?

A: The adjustable laparoscopic gastric band limits food intake. If you feel nauseated or sick on a regular basis, it may mean you are not chewing your food well. It could also mean you are not following the diet rules properly. Another reason you would feel sick may be that there is a problem with the placement of the band. So you should contact your doctor. Vomiting should be avoided as much as possible. It can cause the small stomach pouch to stretch. It can also lead to slippage of part of the stomach through the band. That would reduce the success of the operation. In some cases, it would also require another operation.

Q: Will I suffer from constipation?

A: There may be some reduction in the volume of your stools. That's normal after a decrease in food intake, because you eat less fiber. This should not cause severe problems. If difficulties do arise, check with your doctor. He or she may suggest you take a mild laxative and drink plenty of water for a while. Drinking plenty of water is a good idea, anyway. Your needs will vary, but you should drink at least 6-8 glasses of water a day.

Q: Will I need to take vitamin supplements?

A: You may. It's possible you may not get enough vitamins from three small meals a day. At your regular check-ups, your specialist will evaluate whether you are getting enough vitamin B12, folic acid, and iron. Your surgeon may advise you to take supplements.

Q: What about other medication?

A: You should be able to take prescribed medication. You may need to use capsules or break big tablets in half or dissolve them in water so they do not get stuck in the stoma and make you sick. You should always ask the doctor who prescribes the drugs about this. Your surgeon may tell you to avoid taking aspirin or other non-steroidal anti-inflammatory pain relievers. That's because they may irritate the stomach. The problems these drugs may cause could mean the band would need to be removed.

Q: What about pregnancy?

A: Becoming pregnant can be easier as you lose weight. Your menstrual cycle may become more regular. If you need to eat more while you are pregnant, the band can be loosened. After the pregnancy, the band may be made tighter again. Then you can go back to losing weight.

Q: Can the band be removed?

A: Although the adjustable laparoscopic gastric band is not meant to be removed, it can be. In some cases this can be done laparoscopically. Surgeons report that the stomach generally returns to its original shape once the band is removed. After the removal, though, you may soon go back up to your original weight. You may also gain more.

Q: What if I go out to eat?

A: Order only a small amount of food, such as an appetizer. Eat slowly. Finish at the same time as your table companions. You might want to let your host or hostess know in advance that you cannot eat very much.

Q: What about alcohol?

A: Alcohol has a high number of calories. It also breaks down vitamins. An occasional glass of wine or other alcoholic beverage, though, is not considered harmful to weight loss.

Q: Will I need plastic surgery for the excess skin when I have lost a lot of weight?

A: That is not always the case. As a rule, plastic surgery will not be considered for at least a year or two after the operation. Sometimes the skin will mold itself around the new body tissue. You should give the skin the time it needs to adjust before you decide to have more surgery.

Q: What will happen if I become ill?

A: One of the major advantages of the adjustable laparoscopic gastric band is that it can be adjusted. If your illness requires you to eat more, the band can be loosened. This can be done by removing saline from it. When you have recovered from your illness and want to lose weight again, the band can be tightened. This can be done by increasing the amount of saline. If the band cannot be loosened enough, it may have to be removed.

Q: How is the band adjusted?

A: A fine needle is passed through the skin into the access port to add (fill) or subtract (un-fill) saline. This process most often takes only a few minutes. Most patients say it is nearly painless.

Q: How much weight will I lose?

A: The amount of weight you may lose depends on several things. The band needs to be in the right position. And you need to be committed to your new lifestyle and eating habits. In the U.S. clinical trial, 2%

of patients gained some weight; 5% neither gained, nor lost weight; 61% of the patients lost at least 25% of their excess weight; 52% of the patients lost at least 33% of their excess weight; 22% lost at least 50% of their excess weight; and 10% lost at least 75% of their excess weight.

You should lose weight gradually. Losing weight too fast creates a health risk and can lead to a number of problems. Nausea and vomiting are only the most minor examples. A weight loss of 2 to 3 pounds a week in the first year after the operation is possible, but one pound a week is more likely. Twelve to 18 months after the operation, weekly weight loss is usually less. Remember that your main goal is to have a weight loss that prevents, improves, or resolves health problems connected with severe obesity.

One final point

It is important that you ask your surgeon all the questions you may have about obesity surgery and the adjustable laparoscopic gastric band. It is also essential that you follow his or her advice.

SECTION IV

**BEHAVIOR MODIFICATIONS
AND LIFESTYLE CHANGES**

BEHAVIOR MODIFICATION AND LIFESTYLE CHANGES

Congratulations on your decision to make a major life modification with the aid of weight loss surgery. You are about to embark on a path that can lead to a healthier and longer life. Traveling down this path there will be opportunities and challenges for you to experience. This will mean making changes. As you deal with the behavioral commitment that surgery requires, there are many emotions that will naturally arise. This guide is designed to give tools to assist you in dealing with these feelings.

RULE ONE: ATTITUDES AND STRATEGIES FOR SUCCESS

Weight loss surgery is a valuable tool that will help you lose weight and keep it off permanently but the road to achieving your goal weight will have obstacles to overcome. One of the key critical success factors will be developing a positive attitude for success. If you believe in your ability to overcome the obstacles between you and your goal, you can achieve it no matter how hard it may be. Charles Swindoll, a noted commentator on human behavior, describes the importance of attitude in the following fashion:

"The longer I live, the more I realize the impact of attitude on life. Attitude to me is more important than facts. It is more important than the past, than education, than money, than circumstances, than failures, than successes, than what other people think or do. It is more important than company...a company ... a home. The remarkable thing is we have a choice everyday regarding the attitude we will embrace for that day. We cannot change the past. We cannot change the fact that people will act a certain way. We cannot change the inevitable. The only thing we can do is play on the one string we have and that is our attitude ...I am convinced that life is 10% what happens to me and 90% how I react to it. And so it is with you ... we are in charge of our own attitudes."

The way we think and what we think shapes our behavior and colors how we feel. It is important to your recovery process to monitor yourself talk and the messages you send yourself. There are several techniques that are helpful with positive attitude development. The first technique is using positive attitude questions. If we want to change the quality of our lives we must change what we habitually ask of ourselves. Create a daily success ritual for yourself. Every morning come up with at least two or three answers to each of the following questions basking in the positive emotions they inspire. If you have difficulty with an answer, simply add "could". For example, if you can't answer the question, "What am I the most happy about in my life now?" ask, "What could I be the most happy about in my life now if I wanted to?" This positive change in focus will give you the courage and determination to overcome any obstacles on the road to your goal.

POSITIVE ATTITUDE QUESTIONS

- 1. What am I happy about in my life now?** What about that makes me happy? How does that make me feel?
- 2. What am I excited about in my life now?** What about that makes me excited? How does that make me feel?
- 3. What am I proud about in my life now?** What about that makes me proud? How does that make me feel?
- 4. What am I grateful about in my life now?** What about that makes me grateful? How does that make me feel?
- 5. What am I enjoying most in my life now?** What about that do I enjoy? How does that make me feel?

6. What am I committed to in my life now? What about that makes me committed? How does that make me feel?

7. Who do I love? Who loves me? What about that makes me happy? How does that make me feel?

The second technique to use is being your own best friend. Take a moment to picture your best friend. Think about the ways you treat them. As you view them in your mind's eye, you will probably see them as attractive. To you they are beautiful both inside and out. Your feelings for your friend are warm and positive. You celebrate their success and always treat them with respect. Even when they disappoint you or you feel angry with them, you value them and wouldn't think of mistreating them. You accept their weaknesses as well as their strengths. Now consider how you treat yourself. Do you treat yourself the way you would your best friend? If you are like most severely obese people, you probably don't. Instead you may feel afraid of your needs. You may treat yourself with indifference, neglect, or outright hostility. The best way to motivate yourself for successful weight loss and recovery is treating yourself in ways that are respectful, rewarding, and with kindness. Here are some tips on being your best friend.

BECOMING YOUR OWN BEST FRIEND . . .

- Use positive affirmations. Talk to yourself with kindness and respect. Put all negative and hurtful self-critical thoughts out of mind.
- Take care of your needs.
- Add beauty to your life.
- Be considerate of your feelings.
- Support your efforts to change by learning from your mistakes.
- Reward your progress and celebrate your success.

The third technique that is very helpful in changing the way we think is the use of journaling. Writing about how you feel and the changes you are making can be a very growth enhancing process. You are encouraged to create a joy journal. Joy is the inner song you play throughout your day. Joy is an attitude; it comes from a sense of love for yourself and others. It comes from inner peace, the ability to give and receive, and the ability to appreciate. It is a feeling of gratitude for the gift of life. Fill in the blanks in this book, and when it's full, start your own joy journal.

CREATING JOY...

1 Before you go to sleep, write down three kind things that were done for you today. Now write down three things you did for someone else. Remember that kindnesses come with no strings. They are done, let go of them.

2 Think of a person or persons who have really made a difference in your life.

3 Think of a way you would delight someone you love tomorrow.

4 List at least 4 things you do well

5 Write down ten things you like about yourself.

6 Think of your favorite activities as a child (biking, swimming, skipping rope). List them and make plans to do them again.

7 Write down 3 things your children have done well lately. Comment on this out loud, preferably in the presence of others.

8 Think of 5 qualities you adore in your partner or spouse. Write them down and tell your significant other about them.

9 Remember 3 times when you felt inner peace and serenity. As you capture the feeling, write it down.

10 What obstacles have you overcome lately? Thank yourself and whoever helped you.

11 Whom do you laugh with the most? Remember a time you laughed so hard you thought you would collapse.

12 What song or songs make your heart sing?

OBSTACLES ON THE ROAD TO RECOVERY...

Most people who have weight loss surgery look forward to all the wonderful things they want to happen to them when they have reached their goal weight. They have a vision of being more physically active and comfortable with themselves. Some dream about buying fashionable clothes in a regular department store. They envision feeling comfortable with themselves and anticipate increased social activities. No more sitting home being lonely and bored. They think about doing all the things they haven't done, because of their excess weight.

What people don't think about is the long journey from where they are at the time of surgery to where they want to be when they reach their goal weight. No matter how well informed they may be, most patients feel there is an element of magic in the surgical process. Magically, they will recover from surgery, make the necessary lifestyle adjustments, and love a new life. So that it will not come as a rude awakening, we would like to identify obstacles that almost every patient will encounter.

Shortly after surgery, all patients become aware that they have lost their freedom of choice when it comes to food. As we discussed, the surgical procedure greatly reduces the amount of food that may be eaten. Immediately after surgery, the stapled pouch will hold only 1-2 ounces of clear liquid. In order for the stapled pouch to heal properly, it is necessary to follow the specific nutritional plan as recommended by your physician and covered by the dietitian.

Before surgery, most patients are used to eating as much of whatever they want to eat whenever they want to eat it. It can be emotionally painful to experience a restriction in the amount of and kind of food that may be eaten. The first obstacle most patients face is how they will deal with this emotional pain. The best way to overcome the emotional pain is to go through a grieving process.

Grief is something we associate with death, but grief may be a part of other losses or life changes, too. The most healthy way to deal with these feelings is to recognize them. It will be important to discuss and share what you are feeling with people in your support system. The next step in dealing with loss is to replace what you have lost, be proactive, and plan for how you will refill your life. Think about all the areas in your life that are important to you. We want to encourage you to balance your life and choose to replace and reengage with activities, relationships, and habits that are positive and reinforcing for the new life you are creating. Be creative in painting on the canvass of your new life.

Patients who refuse to resolve the loss by grieving often "cheat" in their food intake. They attempt to stuff the stapled pouch with more than it will hold or they may eat food that the healing pouch is not ready to process. Those who engage in these behaviors will experience the negative consequences that have been previously discussed. They also run the risk of sabotaging their surgery by stretching out the stomach pouch, thus making the surgical procedure ineffective.

A second common obstacle that patients may experience is a weight plateau. Initial weight loss following gastric bypass surgery may be rapid. Later in your work towards your goal weight there may be times when the amount of weight loss will slow or stop completely. This is a plateau.

Quite simply, a plateau is a period during which your body is adjusting to all the metabolism changes it is undergoing. When you are faced with this situation, the best coping strategy is to continue to follow a regular nutritional and exercise routine. Weight loss will usually begin again within a few weeks. If a plateau continues for longer than a few weeks, an adjustment in caloric intake or exercise will help. During a plateau, it is not unusual to feel discouraged. This is the time to talk to your support person.

RULE TWO: DEVELOP A SUPPORT SYSTEM

The decision to have a gastric bypass to assist with weight loss is a very personal one. It is important that you have decided to take this step for yourself -- but you won't be able to do it alone. It is important that you allow your

family, friends, and bypass peers to assist you in this process. Those who truly care about you want you to be happy and healthy. They are usually willing to do whatever they can to help you meet your goals. They may not always know what is best to do. This is where you need to be direct and communicate your needs. Tell them the type of supportive attitudes and behaviors that will be the most helpful to you. Invite them to come with you to your nutrition class and support group meetings. Your significant others can be most helpful by being understanding about the challenge you will be facing as you make changes. It is important that you provide them with education about the surgery and how it works. Like you, they need to understand, that the procedure is not magic. It is a valuable tool that can lead to successful weight loss. Once they understand, they can be very helpful by providing you with the following gifts:

The Gift of Encouragement- They understand how you have tried to lose weight and have met with limited short-term success and then failure. They need to support your life changes for sustained long-term success.

The Gift of Flexibility- Some of the changes that you need family and friends to make may be difficult or inconvenient for them. You need them to be flexible enough to work through the challenge that this change will bring.

The Gift of Time- Offering to take on one of your responsibilities or roles, so that you can take part, in an exercise class or join a support group.

The Gift of Companionship- Offering to join with you in some of the lifestyle changes, such as exercise and a healthier food plan.

Clearly, a support network is essential to your surgical recovery and success in weight loss. Here are the top 7 key recommendations that will allow you to get the maximum benefit from the support team you have built.

1. Do your part to keep yourself on the recovery path by practicing healthy life habits (see list of habits of successful weight loss surgery patients }.
2. Be careful not to lean on any one friend too much. Have more than one support person.
3. Be an active member of a support group.
4. Educate your supporter about weight loss surgery and your special needs. Check in with them and talk about your goals.
5. Make a list of your support teams phone numbers.
6. Use your professional support - check in with your Doctors and Nurses and use their expertise.
7. REMEMBER to show gratitude. Return the kindness that your supporters show you.

RULE THREE: STRESS MANAGEMENT

We all use food for more than just nurturance. We eat for comfort in response to stress and difficult emotional feelings. Eating in response to stress may lead to a weight plateau or regaining weight. For gastric bypass patients, eating foods high in fat or sugar content will lead to an aversion reaction. If you have the habit of eating in response to stress or difficult emotions, it is very important that you review and practice effective techniques or stress management.

WHAT IS STRESS...

Stress has been defined in many ways. A concise definition of stress is one given by Dr. Martha Davis and her coauthors in the Relaxation and Stress Reduction Workbook. Dr. Davis says...

"Stress is any change you must adjust to."

Stress can be things like getting fired, having an argument with someone, too many bills to pay for the amount of money you have, and finding your weight went up five pounds. All things we consider to be bad, but good things can also require change. Stress can be buying the house of your dreams, getting a job promotion and raise, falling in love, and finding your weight went down. The negative things that require change we call distress; the positive things are called eustress. According to Dr. Davis we experience stress from three sources: our environment, our body, and our thoughts.

Our environment presents us with the need to adjust. There are changes in the number of things we have to do and the amount of time we have to do them. As interpersonal, work, and home responsibilities change, there can be threats to our emotional security or self esteem.

Our bodies present us with changes that must be made either slowly or rapidly. The natural process of growth and aging requires gradual change. Illness and accidents require immediate change. The need for food and rest require adjustments. The third source of stress is our own thoughts. Our thoughts are how we interpret experiences from the past and present. This influences how we view the future. Dwelling on some unpleasant event in the past is stressful. Solving or not solving a problem in the present is stressful. Worrying about what might happen in the future is stressful.

How you see things and how you handle them makes all the difference in terms of how much stress you will experience. You have the power to affect the balance point between your internal resources for coping with stress and the stressors that are an unavoidable part of living. By exercising this capacity consciously and intelligently, you can control the degree of stress you experience. Moreover, rather than having to invent a new way of dealing with each individual stressor that comes into your life, you can develop a way of dealing with change in general, with problems in general, with pressures in general. The first step, of course, is recognizing when you are under stress in the first place.

Take some time and review the events that have occurred in your life over the past year to get a feel for your stress rating.

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