# TABLE OF CONTENTS

**Section I: Introduction**
- Meet the “Team” 6
- Obesity Defined 7
- Find your BMI 9
- Morbidities of Obesity 10
- Surgical Weight Loss/ What is Gastric Bypass surgery 13
- What is Lap Band surgery? 15
- What is revisional Weight Loss Surgery 17

**Section II: Pre-operative Requirements**
- Patient Eligibility 18
- Patient Requirements 19

**Section III: Preparing for Surgery**
- Personal Preparations 20
- Medications 21
- Alcohol and Tobacco 22
- Work and Disability 23
- Bowel Preparation 23
- Pre-admitting procedures 24
- What to bring to the Hospital 24
- Your Surgery Day 24

**Section IV: The Operation**
- Gastric Bypass & Lap Band 25
- The Recovery Room 26

**Section V: Your Hospital Stay**
- What to expect after surgery 27
- Activities/Exercises to speed up recovery 27
- General discharge instructions 30

**Section VI: After Surgery**
- Medications after surgery 31
- Check in with the Team 31
- Specific recovery instructions 32
- Personal Hygiene 33
- Wound Care                   33
- Danger Signs                  34
- Normal Symptoms               34
- Nausea and Vomiting           35
- Dehydration                   36
- Bowel Habits                  36
- Anemia                        38
- Transient Hair Loss/Skin Changes  38
- Scars                         38
- Sexuality/Pregnancy           38
- Malnutrition                  39

Section VII: Diet Guide – Gastric / Lap Band Diets
- Gastric Bypass                 40
- Preparation                   40
- Stage I – 5                    41-49
- Lap Band Diet                  50-58

Section VIII: Short Term Complications                  59

Section IX: Long Term Complications
- General                       60
- Gastric Bypass                 60
- Lap Band                       63

Section X: Your Long Term Success
- Follow up                      64
- Expected weight loss           65
- Lifestyles changes             65
- Maintaining the weight         66
- 8 rules of weight loss         67
- Changes                       68
- Reconstructive/Plastic Surgery 68
- Emotional Issues               68
- Counseling                    70
- Family and friends             70
- The Internet                   71
- Support Group Meetings         71
- The Weight Loss Fight with Yourself 72
- Stress Eliminators             73
Section XI: Exercise
- First Steps 73
- Starting an exercise program 74
- Loss of Muscle Mass 75
- Workout mistakes 76
- How to stick with your program 76
- Overcoming your excuses not to exercise 78
- The walking workout 78
- Water fitness/aerobics 79
- How to choose a personal trainer 80

Section XII: Our New Procedure for Post-op Gastric Bypass Weight Regain
- What is the ROSE Procedure 81 - 87

*References or statistics sited within this document were taken from the National Institute of Health (NIH) website, Centers for Disease Control (CDC) website and http://www.asbs.org/Newsite07/patients/resources/asbs_rationale.htm.
Section I: Introduction

Hello, and welcome to Advanced Surgical Associates program for Weight Loss Surgery! Obesity is a problem that affects millions of Americans and is increasing at an alarming rate. As you probably know, most people have battled with their weight at some point in their lives. Whether they feel the need to “lose a few pounds” or much more, the basic goal is always the same. We all try to improve our health, so we can lead happier, longer and more productive lives. Countless studies have shown that many health issues and disease states occur with and because of morbid obesity, and that weight reduction can help resolve these issues. Here at Advanced Surgical Associates, we have developed a comprehensive treatment program, which will allow you to successfully take the steps towards weight loss and a healthier life.

Surgical intervention is not something to enter into lightly; there are associated risks with every operation available today. With proper preparation, adequate education with respect to the surgical “tools” available to you, and realistic expectations with regard to outcomes - you can expect a favorable outcome with an almost immediate change for the better. If for any reason you are at a higher risk for any of the potential weight loss surgery options, Dr Balder and his staff will outline any these potential additional risks that you personally may have and try to help you make a successful choice with regard to surgical options available.

We would like to personally congratulate you on making the decision to inquire about BARIATRIC SURGERY. Bariatric surgery is the surgical treatment of morbid obesity and is a very effective method of long-term weight loss in carefully selected patients. Take the time to read through this handout thoroughly and ask as many questions as you would like. We have tried to compile answers to the more common questions that are asked. Keep this patient guide handy and refer back to it as needed. We are more than willing to help you make the right choices.

Good health is a life-long journey and we’re glad to be able to help you along the way!
Meet the “Team”

**Surgeon:** Dr. Donald Balder, Director of Bariatric Surgery at Conway Medical Center is board certified in General Surgery (and a Fellow of the American College of Surgeons) and specialty trained in laparoscopic and endoscopic surgery. He completed his internship at the University of Illinois and his residency at Brown University. He is board certified by the American Board of Surgery and is a member of the following:

- Fellow of the American College of Surgery
- Member of the South Carolina Chapter of American College of Surgeons
- Member of the American Society of Metabolic and Bariatric Surgery (ASMBS)
- Member of the Society of American Gastrointestinal Endoscopic Surgeons

It is important to realize Dr. Balder’s commitment to the surgical care of obesity, morbid obesity and their related disease processes. Dr. Balder has lead and continues to lead the way in minimally invasive Bariatric Surgery here in South Carolina. In 2000, Dr. Balder performed the first laparoscopic Roux-en-y Gastric Bypass Procedure. In 2004, Dr. Balder performed the first Lap Band® procedure in South Carolina. In 2009, Dr. Balder is the first and only surgeon to perform and offer S.I.L.S. (single incision laparoscopic surgery) with the lap band (and other surgeries as well); and the first and only surgeon to perform the incision-less R.O.S.E. (restorative obesity surgery, endoscopic) for GBP patients that have fallen off their program and stretched their pouch or GBP anatomy, and need “revisional” surgery.

**Bariatric Care Coordinator/Clinical Manager:** Marcia Hansen-McCauley, BSN, RN, CBN, Marcia is a registered nurse with longstanding experience in Bariatrics. She is a member of the ASMBS and is a Certified Bariatric Nurse through ASMBS, National Association of Bariatric Nurses and the Obesity Action Coalition. She will be working closely with you and the Surgeon(s) in preparation for surgery as well as post-operatively. She is also your contact for any issues regarding office procedure and policy.

**RN:** Tracy Reid, RN. Tracy is a Registered Nurse who will be assisting you with answering questions, scheduling prior to surgery and follow up appointments in the office. Tracy has extensive experience in emergency medicine and telephone triage.

**Business Manager:** Donna Tomlinson. Donna is a dedicated member of the team who can assist you at any point in the process with insurance or other administrative issues and staff issues.

**Sabrina Johnson (Bariatric Liaison), Kathy Cook:** They are all members of the office team who will be assisting you with appointment scheduling, insurance
application and issues, as well as assisting your surgeon(s) during your office appointments.

**Registered Dietitians in our office, at Advanced Surgical Associates and Conway Medical Center:** We utilize certified dietitians (R.D. – registered dietitians) experienced in managing patients going through weight loss surgery. Currently in the office, we had retained Kelly Snow, RD for our patient’s optimum care. Our Dietitians will provide you with education and support before your surgery, during your hospital stay (CMC) and post-operatively. They can be seen post-operatively for continuous follow-up after the 6 week visit appointment as needed to answer questions and help you to achieve your weight loss goal. They are a valuable source of dietary information both before and after surgery.

**Linda Lee, RN, Hospital Bariatric Care Coordinator, Linda Johnson, RN, Director of the Surgical Unit:** During your hospital stay, Linda Lee, or Linda/designee manage the daily oversight of the nursing care provided. They are available to assist you with any questions or concerns regarding your hospital stay.

**Other Members of the Team –**

**The Bariatric Review Board:**

- Psychiatrist/Psychologist
- Pulmonologist
- Cardiologist
- Hematologist
- Gastroenterologist
- Anesthesiologist
- Pharmacist

**Obesity Defined**

It is estimated that there are more than 16 million obese people in the United States. Obesity is considered a chronic and complex disease. Genetic, environmental, cultural, and psychological factors can all play part in causing obesity. According to the National Institute of Health, a 20 percent or more increase in your ideal body weight is the point at which excess weight can become a health risk. Obesity is related to excess body fat and is staged as Class I (BMI 30-34.9), Class II (BMI 35-
39.9), and Class III (BMI >40) is also called morbid obesity. Super Morbid Obesity (highest risk) involves a BMI > 50.

Research studies have shown that morbid obesity has been linked to early death. In addition, morbid obesity is associated with many health risks including: hypertension, type II (non-insulin dependent) diabetes mellitus, joint disease, cardiovascular disease, sleep apnea, various cancers and depression.

Studies support the estimate that a ten percent reduction in body weight corresponds to a twenty percent reduction in the risk of developing coronary artery disease. Literature also suggests that the significantly increased mortality risk of morbid obesity reverts to normal following successful weight loss surgery.

**Clinically Morbid (Severe) Obesity**

Morbid obesity is defined as having a Body Mass Index (BMI) greater than 40. The BMI is a way of estimating body fat by determining excess body weight while taking into account height. Though BMI may not be the absolute best method to determine the degree of one’s obesity it is an easy tool that provides a good estimate and it is used to determine a patient’s appropriateness for gastric bypass surgery or Lap Band®.

**Calculate your BMI**

BMI=weight (pounds) X 703/height squared (inches)

Weight in pounds times 703 divided by height in inches squared.
Find your BMI
You can also go to http://www.healthchecksystems.com/bmi.asp; or our website www.advancedsurgicalassociates.com. Enter your height and weight, and your BMI will be calculated for you.
You can find you BMI from the table below:

Morbidities of Obesity
(From the NIDDK & NIH, http://www.niddk.nih.gov/health/nutrit/pubs/health.htm#risks)
The following is a list of significant medical conditions related to obesity that have serious effects on your health and life span.

**Heart Disease and Stroke**

Heart disease and stroke are the leading causes of death and disability for both men and women in the United States. Overweight people are more likely to have high blood pressure, a major risk factor for heart disease and stroke, than people who are not overweight. Very high blood levels of cholesterol and triglycerides (blood fats) can also lead to heart disease, stroke, and peripheral vascular diseases and often are linked to being overweight. Being overweight also contributes to angina (chest pain caused by decreased oxygen to the heart) and sudden death from heart disease or stroke without any signs or symptoms.

The good news is that losing a small amount of weight can reduce your chances of developing heart disease or a stroke. Reducing your weight by 10 percent can decrease your chance of developing heart disease by improving how your heart works, blood pressure, and levels of blood cholesterol and triglycerides.

**Cancer**

Several types of cancer are associated with being overweight. In women, these include cancer of the uterus, gallbladder, cervix, ovary, breast, and colon. Overweight men are at greater risk for developing cancer of the colon, rectum, and prostate. For some types of cancer, such as colon or breast, it is not clear whether the increased risk is due to the extra weight or to a high-fat and high-calorie diet.

**Diabetes**

Non-insulin-dependent diabetes mellitus (type 2 diabetes) is the most common type of diabetes in the United States. Type II diabetes reduces your body's ability to control your blood sugar. It is a major cause of early death, heart disease, peripheral vascular disease, kidney disease, stroke and blindness. Overweight people are twice as likely to develop type 2 diabetes as people who are not overweight. You can reduce your risk of developing this type of diabetes by losing weight and by increasing your physical activity.

If you have type II diabetes, losing weight and becoming more physically active can help control your blood sugar levels. If you use medicine to control your blood sugar, weight loss and physical activity may make it possible for your doctor to decrease the amount of medication you need or completely take you off it.

**Sleep Apnea**

Sleep apnea is a serious condition that is closely associated with being overweight. Sleep apnea can cause a person to stop breathing for short periods during
sleep and to snore heavily. Sleep apnea may cause daytime sleepiness and even heart failure. The risk for sleep apnea increases with higher body weights. Weight loss usually improves sleep apnea.

**Osteoarthritis**

Osteoarthritis is a common joint disorder that most often affects the joints in your knees, hips and lower back. Extra weight appears to increase the risk of osteoarthritis by placing extra pressure on these joints and wearing away the cartilage (tissue that cushions the joints) that normally protects them. Weight loss will decrease stress on the joints to improve the symptoms of osteoarthritis and prevent further damage to the joints.

**Gout**

Gout is a joint disease caused by high levels of uric acid in the blood. Uric acid sometimes forms into solid stone or crystal masses that become deposited in the joints. Gout is more common in overweight people and the risk of developing the disorder increases with higher body weights.

Note: Over the short term, some diets may lead to an attack of gout in people who have high levels of uric acid or who have had gout before. If you have a history of gout, check with your doctor or other health professional before trying to lose weight.

**Gallbladder Disease**

Gallbladder disease and gallstones are more common if you are overweight. Your risk of disease increases as your weight increases. It is not clear how being overweight may cause gallbladder disease.

**Chronic Venous Insufficiency**

This is a condition where blood pools in the veins of your legs instead of traveling back to the heart. This can lead to varicose veins; leg fatigue, throbbing and pain; and leg ulcers.

In addition, obesity is associated with increased arthritis pain, low back pain, chronic joint pain, and joint deterioration. It has been shown that many of these conditions will improve or resolve with weight loss. However, the majority of people are unable to lose and maintain significant weight loss even with diet and exercise programs. Studies have shown that less than 5 percent of the U.S. population is able to successfully lose significant weight and maintain it past five years on traditional weight loss programs. For the other 95 percent, weight loss surgery may be the most valuable tool available for their needed life change.
Co-morbidity Reduction After Bariatric Surgery

Migraines 57% resolved
Pseudotumor cerebri 96% resolved
Dyslipidemia, hypercholesterolemia 63% resolved
Non-alcoholic fatty liver disease 90% improved steatosis, 37% resolution of inflammation, 20% resolution of fibrosis
Metabolic syndrome 80% resolved
Type II diabetes mellitus 83% resolved
Polycystic ovarian syndrome 77% resolution of hirsutism, 100% resolution of menstrual dysfunction
Venous stasis disease 95% resolved
Gout 72% resolved
Depression 55% resolved
Obstructive sleep apnea 74-96% resolved
Asthma 82% improved or resolved
Cardiovascular disease 82% risk reduction
Hypertension 52-92% resolved
GERD 72-98% resolved
Stress urinary incontinence 44-88% resolved
Degenerative joint disease 41-76% resolved

Quality of life improved in 95% of patients
Mortality 89% reduction in 5-year mortality
Surgical Weight Loss

Operations to treat morbid obesity are designed to help extremely obese people lose weight, so that coexisting health problems can be diminished or eliminated and quality of life might be improved. These are not cosmetic operations. The decision to undergo an operation should not be entered into without a great deal of thought and research. This is a life-altering decision with many risks and benefits that need to be carefully considered.

It is important to understand that surgery is not a cure for obesity but rather a tool for you to use to control this disease. When used properly this tool will lead to successful, long-term weight reduction.

What Operations are available?

Advanced Surgical Associates, P.A. with Dr. Donald Balder performs the Gastric Bypass (typically done laparoscopically - thru five tiny incisions) and the Gastric Lap Band procedures at Conway Medical Center. The Gastric Bypass is considered the "gold standard" operation, and the Gastric Lap Band is a less invasive option for surgical weight loss. At Rivertown Out-Patient Surgical Center, only the Gastric Lap Band procedure is performed. Please note that unless otherwise specified only the Allergan Advanced Performance Lap Band ® Device is used - which this practice considers to be the most advanced option available today.

Benefits of Weight Loss Surgery

Complications of clinically severe obesity may begin to resolve within the first few months following surgery. These include control of diabetes; lowered blood pressure and total cholesterol; relief from sleep apnea, severe acid reflux, and urinary stress incontinence; eased lower back and osteoarthritis pain. Patients also report enhanced mobility, as well as improved mood and self-esteem. Results will vary depending on the surgical procedure done, and degree of optimal patient post operative compliance.

What is Gastric Bypass Surgery?

Gastric bypass surgery has been endorsed by the National Institute of Health as the only effective means of inducing significant long-term weight loss for the vast majority of patients with clinically severe obesity.
Roux-en-y Gastric Bypass that Dr. Balder performs changes your anatomy and looks like this:

How does weight loss occur after Gastric Bypass surgery?

- **Gastric Restriction**: Your stomach is now only 1 to 2 ounces in size, which will significantly limit your portion size.
- **Malabsorption**: A portion of your intestines is bypassed so less absorption of food occurs. This limits the amount of calories absorbed from the food that you consume. We will closely monitor your nutritional needs so that your weight loss occurs safely.
- **Feeling of Satiety**: Feeling of fullness occurs with a much smaller amount of food. It is important to listen to your body so that you do not stretch out your pouch over time.
- **Dumping Syndrome**: This syndrome occurs in approximately 80% of patients who undergo gastric bypass surgery. It happens when high caloric food passes
too quickly from the stomach into the small intestines. This leads to uncomfortable symptoms such as nausea, sweating, fullness, abdominal cramping, diarrhea, and a fast heart rate. This occurs because the normal breakdown of these high caloric often high-sugar foods by hydrochloric acid in the stomach is no longer there to start their breakdown. The small intestine lining or mucosa cannot handle these high osmolar loads (lots of sugar) and there is an intense change that causes patients to feel sick. Some common cause is foods high in simple sugar (such as: candy, chocolate, cookies, soda, ice cream, syrups etc.). It is important to avoid these foods after surgery to prevent dumping syndrome. In addition, these types of foods are high in calories and low in nutrients, which will hinder your weight loss efforts.

**Food intolerance may also be caused by high fat content or lactose intolerance. It is important to keep a food record to help determine the cause of any post-operative symptoms.**

**How much weight can I expect to lose?**

The amount of weight lost after gastric bypass surgery is individualized. It depends on your body and on how well you follow the post surgery diet and exercise program. However, research has shown that patients usually lose 60-80% of their excess body weight within 18 months after surgery. At five years, this weight loss has shown to be well maintained at 50-70% of excess body weight (EBW). For example, if you weigh 300lbs and your ideal body weight is 150lbs, you can expect to lose approximately 75 to 120 lbs.

**What is Gastric Lap Band surgery?**

Gastric Lap Band is a procedure during which your surgeon will implant a permanent, prosthetic "band" around the upper part of your stomach. This procedure is purely “restrictive”, meaning that it allows you to eat less while feeling full by creating a much smaller virtual stomach pouch above the band. The band has an inner lining that utilizes an adjustable inflatable balloon and is connected to a port buried within your abdominal wall. For the first 1-2 years after the operation, the band will be periodically “filled” or “adjusted” in the office to give you optimal restriction and individualize your weight loss.

Please see our website for a real lap band surgery, videotaped for your convenience - [www.advancedsurgicalassociates.com](http://www.advancedsurgicalassociates.com)
Dr. Balder places the Lap Band® as seen in this picture across the upper stomach:

Gastric Lap Band does not require cutting into the stomach or intestines and is therefore deemed to be a “less invasive” operation. It is still a major abdominal operation, and the preparatory phase is the same as for the Bypass procedure. Although the risks can be less, total weight loss with the Band is usually less than after the Bypass, and much more dependent on your adherence to the dietary guidelines. Weight loss can range from 0 to over 90% of EBW, with an average of 30% of EBW at one year and 40% at two years. Our practice exclusively uses the newer AP Lap Band® system which has shown in early study to have at least 25% improvement in weight reduction in comparison to previous earlier generation
products. Although, you will have the option of choosing the Ethicon Realize Gastric Band which became available to the market in May 2008. A photo of the real AP Lap Band® with catheter and adjustable port is as follows:

What is Revisional Weight Loss Surgery?

Dr. Balder performs revisional procedures for those who in the past have had a prior weight loss procedure that did not work, for one reason or another. Revisional procedures include Open GBP revision, Laparoscopic GBP revision, Lap Band® on prior GBP (with large pouch) and the R.O.S.E. procedure which is new incision-less
procedure (see final section of manual). It is important to realize that if a patient has undergone a primary weight loss procedure and lost weight and then regained weight, that something has failed them along the way. Most likely, they stopped following their bariatric program guidelines or stopped bariatric follow up altogether. It is imperative that patients considering a revisional procedure understand that obesity and morbid obesity are diseases that require a life-long follow up plan with a bariatric specialist!

**Section II:**

**Preoperative Requirements**

At the Advanced Surgical Associates, Conway Medical Center and Rivertown Surgical Center we provide you with a comprehensive program that will guide you through your weight loss journey. This is a long-term program consisting of dietary and behavior modifications, surgery and exercise.

As we make a commitment of assistance to you, we ask that you also make a commitment to follow our recommendations before and after surgery. Following the guidelines will help ensure a successful outcome and minimize the risk of complications. Taking your own course post-operatively will almost guarantee failure.

**Patient Eligibility Criteria**

At Advanced Surgical Associates, we follow the criteria set forth by the National Institute of Health and ASMBS. These criteria include:

- A BMI equal to or greater than 40 with or without co-morbid conditions*
- A BMI greater than 35 with co-morbid conditions*
- Permanent lifestyle changes including exercise
- No significant, untreated psychiatric illnesses
- Age 18 or older
- Sufficient ability and cognition to understand surgery, potential complications and subsequent associated changes
- Willingness to participate in treatment and long-term follow-up (at least annually for life); patients sign a contract in our office that they will do so.
- Proof of failed attempts at non-surgical weight reduction (need diet history)
- Supportive family/social environment
- Acceptable medical/operative risks
- No Smoking - *surgery will be cancelled for non-compliance* (also, note post-operative smoking will guarantee that complications will in fact occur)
*List of Common Co-morbid Conditions*

- Hypertension
- Diabetes Mellitus
- Cardiac disease
- Hypercholesterolemia/hyperlipidemia
- Sleep apnea
- Asthma
- Hypoventilation syndrome of obesity
- Degenerative joint disease
- GERD (Gastro-Esophageal Reflux Disease)
- Venous stasis ulcers
- Depression
- Menstrual irregularities/Infertility
- Polycystic Ovary Syndrome
- Fungal skin infections
- And others

(If you have BMI between 35 and 39.9 plus conditions listed above, you may still be eligible for weight loss surgery.) *You need to check with your insurance carrier regarding what their criteria is for surgery coverage.

**Patient Requirements**

In order to be considered for weight loss surgery we require the following from you:

___ Attendance of 1-3 support groups prior to surgery (Held every third Tuesday of the month from 6:30-8pm in the Conway Medical Center Administrative Auditorium located next to the hospital at 280 Singleton Ridge Rd.

___ complete the Registration packet with required consults (Psych and Nutrition), letter of necessity from a medical doctor referring you to the program and accompanied a non-refundable program fee.

___ Before your Initial Consultation

You must have the following before your initial visit/consult:

- Your insurance card
- Completed registration
- Letter of referral for Bariatric surgery from your primary care doctor or specialty physician -* if you need Dr Balder to discuss or teach your medical provider about options and outcomes related to WLS please let our staff know.
- Insurance referral if your insurance company requires one
- You must ensure that your health insurance coverage includes Weight Loss/Bariatric surgical benefits (CareCredit is available to those who do not have insurance coverage).
- Psychological screening/evaluation
- Dietary Consultation/evaluation
- Have at least 3-5 years of medical records including failed diets faxed or mailed to the office

If any of these are incomplete it will be necessary to reschedule the appointment.

At your Initial Consult with your surgeon

You will be assigned the following at your Initial Consult by Dr. Balder - your surgeon and Marcia Hansen-McCauley, BSN, RN, CBN - Bariatric Care Coordinator.

- View the Gastric Bypass and/or Lap Band Emmi via email

Comprehensive blood testing
Pulmonary evaluation, if needed.
Cardiology evaluation, if needed.
Gastroenterology evaluation, if needed.
Other specialty evaluation, if needed.

Surgery Scheduling

It is estimated that you will be having surgery 1-6 months from your initial consultation (depending on your specific health problems and your ability to meet preoperative requirements as well as insurance requirements). All preoperative requirements and insurance requirements must be met prior to receiving a surgery date. There is a fast-track program for “Self Pay” option, and few others - please see our website for details www.advancedsurgicalassociates.com.

Section III: Preparing For Surgery

Personal Preparations

Now that you have decided to proceed with surgery, there are certain steps to take before your operation to ensure that you are in the best possible readiness for the procedure. Start taking chewable multivitamins once daily as well as 500 mg of Calcium daily to improve your general health. You will need to take these every day for the rest of your life. Vitamin and mineral intake is especially important after bariatric surgery in order to maintain good nutrition and health, as you are at risk for deficiencies after surgery. We have found that if you start taking these supplements before surgery, it will be easier to remember them after surgery. We have set up an E-Store for our patients to obtain their vitamins and supplements
without having to think about how am I going to remember what I need? You will need to go to www.advancedsurgicalassociates.com and click on links, then click on Bariatric Advantage and then once on this website go to the far right side of the page and in the box for validation code type in BA65885 and hit the search button - this will take you to the E-Store. There are “kits” set up for Lap band and Gastric Bypass patients as well as proteins and other supplements and vitamins if needed. If you do not have a computer you can call 1-800-898-6888 and provided the validation code and choose either “kit” for ordering.

Another important way to prepare for surgery is exercise. The best time to begin your exercise program is before your surgery. Your weight loss after surgery is highly dependant on both your dietary habits and your level of exercise. The sooner you start exercising the easier it will be after you have surgery. It also helps improve circulation, which helps you through the surgical procedure. Success in Gastric Bypass and Lap Band Surgery is all about choosing the right habits before and after surgery. We want you to start moving more than normally; however, we do not want you to injure yourself. Walking on a daily basis improves your circulation and makes breathing easier during recovery. You will also benefit from having a plan in place, so you don’t have to figure out your walking route during the recovery phase. Should you be unable to walk daily due to joint pain, you may want to look into an aquatics program. Every town has classes for arthritic or cardiac patients that are held in a safe and clinical environment. Water exercises still condition your breathing, but are not weight bearing and are therefore easier for people who have joint problems. You can also practice the exercises that speed up your recovery and become familiar with the chapter on Exercise.

You should begin taking two showers per day for at least 5 days before you enter the hospital. Careful attention must be given to cleaning the entire trunk from the neck and armpits to the groin, making sure to clean between any folds of skin. Use only an antibacterial soap such as Dial® or Hibiclens®. Pat dry any reddened areas or use a blow dryer on low heat to dry difficult to reach places.

Medications

It is important to avoid aspirin and all aspirin-containing medicines for 10 days prior to surgery. All herbal medications such as St. John’s Wort, Gingko Biloba, Garlic, etc, should be discontinued as well, because these also have blood-thinning properties. Other herbal supplements such as Kava Kava and Valerian Root are known to interact with anesthesia and should also be stopped 10 days before surgery.
Again, remember to tell your surgeon all the medicines and herbal supplements you are taking. Do not forget to check the label of your multivitamin; many times they can contain herbal supplements as well. Remember to check all labels of over-the-counter medicines, since certain over-the-counter medicines can contain aspirin, too. If in doubt, please check with your pharmacist or Dr. Balder - your surgeon.

In conclusion, make sure that you keep your Doctor(s) and/or Marcia in the Advanced Surgical office and other specialists informed of the complete list of medicines that you are taking. This list should include herbal supplements and vitamins.

**Alcohol and Tobacco**

Since smoking hinders proper lung function; it can increase the possibility of anesthetic complications. Smoking can increase your risk of complications such as deep vein thrombosis (blood clots in the legs), reduce circulation to the skin, impede healing, and others. **Patients are required to quit smoking permanently before surgery.** Smokers who undergo anesthesia are at increased risk for developing cardiopulmonary complications (pulmonary embolism, pneumonia and the collapsing of the tiny air sacs in the lungs), as well as infection. Besides the well-known risks to the heart and lungs, smoking stimulates stomach acid production, leading to high risk of ulcer formation. Patients must agree to **permanently refrain from smoking before and after surgery.** Remember, you are doing all of this to improve your health - your whole health. You will be required to sign a contract that you will **never** smoke again. You will also have blood work to evaluate whether you are being compliant.

Remember 2007 statistics which showed the two top preventable causes of death were tobacco and obesity - it makes no sense to consider weight loss surgery to promote your health if you plan to use tobacco now or in the future.

It is also important to avoid alcohol since it causes gastric irritation and can lead to liver damage. Be aware that during periods of rapid weight loss the liver becomes especially vulnerable to toxins such as alcohol. You may find that only a couple of sips of wine can give you unusually quick and strong effects of alcohol intolerance. In addition, alcoholic beverages are essentially a carbohydrate or sugar based beverage high in sugar calories and may cause “dumping syndrome” and/or impede your weight
loss. For these reasons, we recommend complete abstinence from alcohol for one year after surgery and avoiding frequent consumption thereafter.

Work and Disability

Expected return to work time is anywhere from two to six weeks. There is, of course, great variability. Lap Band patients can usually expect faster recovery and return to work within one to four weeks. The time you take off from work depends on many things. These include the kind of work you do, your general state of health, how badly your work needs you, how badly you need your work (i.e. the money), your general state of motivation, and your energy level. It is important to remember that you are not just recovering from surgery, but you are eating very little and losing weight rapidly. The first few weeks are a precious time to get to know your new digestive system, rest, exercise and meet with other post-operative patients in support group meetings. If financially feasible, take this time to focus on your recovery.

Some patients do not wish to tell the people they work with what kind of surgery they are having. It is perfectly appropriate to tell as much or as little to your employer as you would like. Although you do not need to tell your employer that you are having weight loss surgery, it is recommended to reveal that you are having major abdominal surgery. Explain that you will need four or more weeks to recover, especially if you would like to have some form of financial compensation during your absence. Your employer should have the relevant forms for you to complete. You may want to indicate that you will not be able to do any heavy lifting for several months after surgery. Do not tell your employer that you are having gall bladder surgery, since you would be expected to return to work within two weeks. If you have forms that need to be completed for disability, please do not provide them to our office more than one (1) week before your surgical date. It is not possible to complete forms sooner and it takes several days to have paperwork completed.

Bowel preparation before surgery

For Gastric Bypass and Lap Band patients you will be on a liquid diet for five (5) days before surgery. You may drink only Fluids. These liquids include water, decaf coffee (one cup per day), decaf tea, apple juice, grape juice, cranberry juice, bouillon, broth, clear sugar-free popsicles, *protein shake and gelatin. {See pre-op diet preparation} The day before surgery you will be given a prescription for Halflytely bowel Prep Kit to take as directed. After midnight you must take nothing by mouth except medicines that have been approved by the anesthesiologist and surgeon and then with only the absolute smallest sip of water possible. Your stomach must be empty at the start of the procedure to avoid the risk of aspiration and pneumonia.
**Hospital pre-admitting procedures**

You will receive instructions from the hospital before your surgery instructing you on the time to come to the hospital and review the necessary surgical preparation. You will receive a call from a nurse at Rivertown Surgical Center a day before your procedure there to provide you with the necessary instructions prior to your procedure. You will come to the hospital to meet with Anesthesia prior to surgery. All patients meet with the Bariatric Care Coordinator to review pre and post-op care instructions and to sign Bariatric Contracts and Office Consents.

**If you are ill before surgery:**

If you develop a cold, persistent cough, fever or any changes in your condition during the days before your surgery, please notify the physician who medically cleared you for surgery immediately. You will need to be re-evaluated for surgical readiness. You need to be in the best possible shape for anesthesia. Scheduling will be adjusted to your condition if necessary.

**What to bring to the hospital/surgical center**

It is recommended to bring only the bare necessities to the hospital/surgical center. Do not bring any jewelry or cash. You may want to bring a picture of a family member, friend or pet to help you relax. Many patients feel that a simple picture can give their hospital room a little more air of home with this small touch. Also bring comfortable clothes to go home in. Loose fitting are best after having surgery.

If you require CPAP or BiPAP to sleep at night (hospital stay only), you should bring the mask and machine to the hospital with you on the morning of surgery. Your machine will be used in the Recovery Area and during your hospitalization.

**Your Surgery Day**

**Personal Preparation:**

We recommend that you shower in the morning on the day of surgery - preferably with an anti-bacterial soap, but **do not use** any moisturizers, creams, lotions or make-up. Remove your jewelry and do not wear nail polish. You may wear dentures, but you will need to remove them just prior to surgery. Please bring your eyeglasses and a case to place them for safe keeping.
**Anesthesia:**

When general anesthesia is induced, you will be sound asleep and under the care of your anesthesiologist throughout the operation. The anesthesiologist spends all of his or her time during the procedure ensuring your safety. Any significant changes in blood pressure, heart rate or other vital functions are treated immediately. Your anesthesiologist will discuss the specific risks of general anesthesia with you before your surgery.

Be prepared for interviews by many nurses and doctors before surgery when you arrive. They will all ask you many similar or even the same questions. This is all done for your safety, not to annoy you. Rest assured that everyone is a professional and we are all here to help you. Certainly, if there is anything we can do to make your stay at the hospital/Surgical Center more comfortable, please don't hesitate to ask.

**Section IV:**

**THE OPERATION**

**GASTRIC BYPASS & LAP BAND**

Once you enter the OR, the staff will do everything they can to make you feel safe and secure. You may be transported on a gurney (a bed or stretcher on wheels). In the OR, you will be anesthetized. Medicines that will make you drowsy will flow through the tubing into a vein in your forearm. Sometimes these medicines give a slight, brief, burning sensation as they're given. At the same time, to ensure your safety, the anesthesiologist will connect you to monitoring devices.

After you are asleep, the anesthesiologist places a breathing tube and a urinary catheter will be placed if you are having Gastric Bypass by the OR nurse. The surgical procedure will last about one and a half to three hours for the Bypass and one hour for the Lap Band. The final length of the operation is dependent upon the number of extra procedures necessary, if any, and the difficulty of finding working space within the abdominal cavity. Seldom is the length of operating time related to the patient's immediate condition in the operating room. It may go several hours without undue side-effects or risks. Your surgical team will take excellent care of you! When your surgery has been completed, you will be moved to the Recovery Room.
The Recovery Room

You will be connected to monitoring equipment for continuous monitoring while in the recovery room area. Fully trained Recovery Room nurses will remain with you at all times. The nurses are certified for advanced cardiac life support and you can be confident that you will be well cared for in the Recovery Room. If your surgery is done at Conway Medical Center, when your initial recovery is completed and all your vital signs are stable, you will be transported to your room, usually the Second Floor. Patients are usually in the Recovery Room for about two hours before they are transported to their room. Your family will be able to see you when you arrive at your room. This may be 5 or 6 hours after they saw you preoperatively. The surgeon will go to the family waiting area to talk with your family as soon as the operation is finished. We prefer that family members wait in the hospital waiting area during the surgery.

When you wake up from Gastric Bypass surgery, you will have a urinary catheter as well as an abdominal drain in place. The urinary catheter will be removed on the first or second post-operative day, and the abdominal drain will be removed before you go home. Lap Band patients will only have the intravenous line in place after the procedure. You will also have an abdominal binder in place. The binder can feel very tight, but is there for extra support. If you use CPAP or BiPAP this will be placed on you in the Recovery Area.
Section V: Your Hospital Stay

The hospital stay for Gastric Bypass surgery is two nights, three days (including the day of surgery) or typically less than 48 hrs - if everything goes smoothly, and may be longer for those very rare patients with an open incision or a complication. The Lap Band procedure will be an overnight stay if your insurance requires it (if done at CMC) or you may go home once the recovery room personnel and physician feel you are stable to go home (same day for surgery done at Rivertown Surgical Center).

When you return to your room after surgery, you will continue to be closely monitored by your nurses. You will have a cardiac monitor for additional routine monitoring. This does not mean you had a problem during surgery. Your family may visit with you then.

Along with periodic monitoring of your vital signs (blood pressure, pulse, temperature, respirations), your nurses will encourage and assist you in performing deep breathing, coughing, leg movement exercises, and getting out of bed after surgery. These activities prevent complications. Be certain to report any symptoms of nausea, anxiety, muscle spasms, increased pain or shortness of breath to your nurse. To varying degrees, it is normal to experience fatigue, nausea and vomiting, sleeplessness, surgical pain, weakness and lightheadedness, loss of appetite, gas pain, flatus, loose stools, and emotional ups and downs in the early days and weeks after surgery.

WHAT TO EXPECT AFTER SURGERY

Pain Control

Immediately after surgery there is a moderate amount of discomfort. If you have Gastric Bypass you will be given pain medicine through your IV by the nurse as needed or possibly via a PCA pump (PCA pump - means that you will be in control of the medication, but can not over dose yourself because the pump locker yourself when you have been give the correct dose at the correct times). We cannot remove all of the pain post-operatively, but we will try to keep you as comfortable as possible. An ice pack or packs will also be provided and does help!

Tell your nurses and physician if you are having pain, particularly if it keeps you from moving, taking deep breaths, or feeling comfortable. Everyone is different, so keeping your nurses informed about how you feel will help them to help you.

Activity

With the help of your nurse, you will sit up and dangle your feet and walk the afternoon or night of surgery. You will be asked to get out of bed and walk in the
hallway, increasing your distance daily to reach a goal of walking around the entire nursing unit. You will be required to walk at least three to four times per day and to do your leg and breathing exercises hourly. Walking is extremely important for the prevention of blood clots, respiratory complications and other post-operative complications. Typically, the more a patient walks, the better he or she will do post-operatively.

**Diet**

**Gastric Bypass**

At the hospital, you will be without oral intake until the Upper GI report returns and your nurse gives you the "OK" to start drinking 1 oz. of fluid per hour (sugar-free, non-carbonated clear liquids). If you are doing well with no adverse signs, you will go home on day two and move on to protein drinks/liquid diet at home. Most likely, you will not feel hungry the first week or so after surgery. Nausea is also very common. This is normal with no reason for concern and may last a few weeks. However, it is very important to keep drinking non-carbonated sugar-free liquids & water (at least 64 oz./day) and to consume protein (at least 70 grams - after the first few days to first week) when at home to prevent dehydration and to promote healing.

**Gastric Lap Band**

Following your surgery, you will start on liquids and be prepared for probable discharge home. A prescription will be given to you for pain medicine & a "protective stomach medicine" - both in either a liquid form or a small pill to go home with.

If you are served something other than what was just described, do not eat it. Unfortunately, the food could have been provided in error to you. Call your floor nurse to obtain the appropriate meal. It is a very unlikely occurrence to have the wrong meal served, however, in light of your post-op status we thought that it was worth mentioning.

**Urinary/Bowel Movements**

Gastric Bypass patients will have a Foley catheter in your bladder to drain the urine after surgery. This will stay in for approximately 1-2 days. You probably will not have a bowel movement for a few days after surgery, but you should begin to pass gas/flatus in 2-5 days.

**Abdominal Drain (only for Gastric Bypass)**

After surgery you may or may not have a tube with a bulb on the end of it coming out of your abdomen. Your surgeon will decide if drain placement is necessary. This will help drain off extra fluid as well as assist in checking for leaks.
If your surgery is done laparoscopically, your drain will typically be pulled out before you go home on the day of discharge. If your surgery is done open, you will typically have two drains. One will be removed before you go home and the other will remain in and will be removed in the surgeon’s office. You will be educated on the care of the drain if you are discharged without it being removed.

**Activities to speed up your recovery**

To enhance your recovery, your nurse will instruct you in coughing and deep breathing, turning in bed and exercising your feet and legs. You will be shown how to use an "incentive spirometer" to help you expand your lungs. Coughing and deep breathing is important to loosen any secretions in your throat or lungs and to help prevent pneumonia. Deep breathing also increases circulation and promotes elimination of anesthesia.

**The proper way to deep breathe and cough is to follow these steps:**
1. Inhale as deeply as you can.
2. Hold breath for two seconds.
3. Exhale completely.
4. Repeat the above steps three times.
5. Inhale deeply.
6. Cough. The cough should come from the abdomen, not from your throat. Hold your pillow on your abdomen for support.

Exercising your feet and legs is important for promoting good circulation.

**The proper way to exercise your feet and legs is to follow these steps:**
1. Push your toes of both feet towards the end of the bed (as in pressing down on a gas pedal).
2. Pull your toes toward the head of your bed, then relax
3. Circle each ankle to the right, then to the left.
4. Repeat three times.

These exercises should be repeated at least once every hour after surgery, but it is also a good idea to practice these exercises before surgery to increase lung function and agility.
**Other important information**

You will see Dr. Balder daily while you are in the hospital. You will also be cared for by a team of staff to include medical physicians, nurses, dieticians, and other therapists who will work closely with your surgeon to monitor your progress daily. Conway Medical Center has students of many types who may be assisting in your care. If at anytime someone you don’t recognize comes into your room, you have the right to ask who and why they are there. Just think, you’ll be the center of attention, in a good way!

**General Discharge Instructions**

Dr. Balder will determine your date of discharge based on your individual progress. Prior to discharge, specific dietary and activity instructions will be reviewed with you, along with precautions and situations when your surgeon should be notified. Discuss your going home concerns with your nurse or discharge coordinator. Remember no pills larger than a jelly bean (but no jelly beans!) Check with your physician or pharmacist on whether or not the pills are larger than a jelly bean and can be cut or crushed. It is also extremely important that you stick to the post-operative diet. **Do not advance your diet! Always check with the physician, Bariatric Care Coordinator or dietitian before making changes.** Your “NEW” stomach needs time to heal; advancing your diet too quickly may cause serious, even fatal/death complications.

Please give some thought to your living environment. Are there many steps in your home? Is your bedroom upstairs? How accessible is your bathroom? Please tell the hospital staff about your living environment so they can prepare your going home with your specific needs in mind. Nonetheless, a rubber showerhead with a hose, long sponge stick and toilet lift are all useful items.

Your hospital Case Coordinator, along with other members of your team, will work with you while you are in the hospital recovering from your surgery. She will assess your needs for care that may be required during your hospital stay, as well as assist you with your discharge from the hospital and arranging any home health care needs that may arise.
Section VI: AFTER SURGERY

Medications after Surgery

- Pain medication (usually Lortab or Tylenol w/Codeine elixir) is given to use as needed (prescription given at discharge)
- Chewable Bariatric multivitamin
- Chewable calcium
- For Gastric Bypass patients:
  - Sublingual vitamin B12 (placed under your tongue every day if 500mcg, every other day if 1000mcg, once weekly if 2500mcg)
  - Medication to prevent ulcer formation (you must continue this medication for 6 months - a small percentage of people need to take these the rest of their life)
- You are to resume all pre-operative medication unless instructed differently by your surgeon/physician upon discharge. Any medication you were taking that is larger than a jelly bean must be crushed, cut, or changed to liquid form during the first 8 weeks after surgery. *Before altering (crushing) any medication you must check with your pharmacist or physician first. Not all medication can be crushed!

Checking In with the Team

We care about your progress. Keep in touch with the surgical office 843-347-3900. Or you can email us at Bariatric@sccoast.net. We will do our best to make sure that you are well taken care of. Your first office visit should be scheduled at one to two weeks after your surgery. All Bariatric surgery patients will be scheduled for follow-up with the Bariatric Team at 2 weeks, 4 weeks, 8 weeks, 12 weeks, 6 months, 12 months and annually thereafter for life. For Lap Band patients, you will be seen within 1-2 weeks post-op and at 6 weeks when Lap Band patients are eligible for their first fill and can return every four to six weeks until optimally adjusted. *Band adjustments will be determined after you have consulted with the clinician and it has been determined that a fill is needed. Please call your surgeon’s office with any surgical concerns between scheduled visits. Don’t leave your Primary Care Physician out of the loop - don’t hesitate to contact him or her with medical concerns. You may find that some of your medications will need adjustment after surgery. Please contact your primary care physician post-operatively to discuss possible changes.
Specific Recovery Instructions

There are many things you will experience once you are at home recovering. When you get home, plan on taking things easy for a while. Your body is still recovering from the stresses of major surgery and weight loss occurring during the recovery period. Your activity will be restricted to no strenuous activity for 3 to 6 weeks after the operation. You may walk and perform light household duties as tolerated upon your return home. You may climb stairs. It is important to remember that you are still at risk for the development of blood clots after you are discharged from the hospital. You should not go home and sit for prolonged periods of time. Frequent walks of short duration are better tolerated than one or two long walks that go to or past the point of fatigue.

Increase the distance that you walk gradually. By the six-week mark you should be regularly walking two to three miles a day or more. If you have specific problems with your weight bearing joints, water exercises are recommended instead of long-distance walks. You can start water activities about three weeks after surgery if your surgical incisions are healed. It is important not to swim in a pool or use a hot tub, whirlpool or even take a bath until seen by your surgeon at the two-week post-op visit. You may shower daily. Patients undergoing the laparoscopic surgery are frequently able to return to all activities within a shorter time frame. Keep up your fluid intake with small, frequent sips as necessary. Once you go home, you will be drinking approximately 48 ounces daily on Stage 3 of your diet, and will gradually increase to 64 ounces per day. Refer to the DIET section for specific dietary instructions.

Resume traveling short distances as soon as you feel strong enough to make the trip. Do not drive a motor vehicle until you are off prescription pain medicines and feel you can move adequately to respond quickly if necessary. No car trips should be taken longer than 60 minutes for the first month.

The first several weeks after your surgery you may feel weak, and tire easily after activity. Dehydration is probably the most common cause of post operative weakness - drink, drink, drink. Also, try to be as active as possible. Plan to walk as much as you can tolerate without becoming too tired. Start with short walks, increasing the distance each day. The more physically active you are, the more recovery is enhanced and the more energy you'll have. Continue walking at least four times daily, so that you are walking 30 to 45 minutes by the sixth week. Find out more about starting an exercise program by reading about first steps and continue to do the exercises that speed up your recovery. You can also do “Seated Exercises” if unable to do extensive walking due to joints or back pain.
Avoid sitting and standing without moving for long periods. Change positions frequently while sitting, and walk around while standing. These strategies will help prevent blood clots from forming in your legs. Avoid lifting anything heavier than 20 to 30 pounds during the first three weeks. Do not do any heavy work for the first month unless cleared by your surgeon. Climbing stairs is encouraged.

Remember that most patients will feel tired, less energetic and sore for several weeks following either operative method as these are major operative procedures and you will be losing weight as well as healing wounds.

**Personal Hygiene**

Most patients like to have someone home with them the first few days after surgery for moral and physical support. Due to the nature of abdominal surgery, you may need some help with toileting. Flushable baby wipes tend to be gentler for personal hygiene, as is a peri-bottle. You can use a small sports-top water bottle as well. A long sponge stick can also be very helpful.

**Wound Care**

Your wound needs minimal care. You should shower with an antibacterial soap everyday. If sutures were used, they dissolve, so there is no need to remove any stitches. You will notice some glue on your wounds. This glue is called "Dermabond® or Indermil®". The glue will flake off on its own. If surgical staples were used, they will have to be removed, usually at your two-week visit. The removal of surgical staples is a simple procedure in the office and usually feels like a "pinch". Leave the wound open to air whenever possible to help prevent suture infection. **DO NO USE ANYTHING ON THE WOUNDS UNLESS YOU ARE TOLD TO!**

No matter how your wound was closed, it is important to keep the wound clean and dry to promote faster healing. You may shower, as above, but pat dry the incision area well. After about three weeks, the incision is usually ready for immersion. Ask your surgeon for the official "go ahead" before you take a bath. As you feel stronger you may enjoy a swim or a soak in the tub.

Despite the greatest care, any wound can become infected. **If your wound becomes reddened, swollen, shows pus or red streaks, has yellow/green, purulent and/or odorous drainage, feels increasingly sore or you have a fever above 101°F, you must report to your surgeon right away.** If after hours, you need to come into the emergency room for an evaluation – at which point the emergency physician can call your doctor. **Please do not use any Neosporin® or other occlusive ointment on your incision.**
**The bottom line:** (unless otherwise prescribed) Shower, wash with antibacterial soap, rinse and dry thoroughly. If oozing or catching on clothing, you may cover with a very light dressing, otherwise leave open to air.

**DANGER SIGNS**

Even though we do not expect you to have any serious concerns, some symptoms that you may experience need to be addressed immediately. If you experience any of these symptoms, contact your surgeon right away:

- Worsening abdominal pain
- Fever of 101°F or above (You should have a thermometer at home)
- Cloudy fluid coming from a wound
- Bright red blood or foul smelling discharge coming from the wound
- Chest or shoulder pain
- Shortness of breath
- Vomiting for more than 24 hours or vomiting of blood or coffee grounds-like material
- Inability to keep any liquids down
- Leg pain or swelling
- Redness around the incision that is spreading
- Excessive bruising around the incision
- Increased swelling around the incision
- Steadily worsening, instead of improvement, of your daily condition
- Any unusual symptom

**Normal Symptoms**

1. **Discomfort and pain** - Mild to moderate discomfort or pain is normal after any surgery. Pain should gradually improve on a daily basis. Pain should **not** increase in intensity or become severe.

   **If the pain becomes severe and is not relieved/decreased by pain medication, please contact Dr. Balder.**

2. **Itching** - Itching and occasional small shooting electrical sensations within the skin frequently occur as the nerve endings heal. These symptoms are common during the recovery period.

   **Ice, skin moisturizers, vitamin E oil and massage are often helpful.**
3. **Redness of scars** - All new scars are red, dark pink or purple. The scars take about a year to fade. There may even be “firmness” to them. This is normal. **We recommend that you protect your scars from the sun for a year after your surgery. Even through a bathing suit, a good deal of sunlight can reach the skin and cause damage. Wear a sunscreen with a skin-protection factor (SPF) of at least 15 when out in sunny weather.**

4. **Lack of hunger or thirst** - Keep a close schedule on when you should be eating and what your fluid intake is. You may not feel like eating or drinking. Nevertheless, you must drink or you could become dehydrated. (minimum of 64 oz. per day)

**Nausea and Vomiting**

Nausea and vomiting after surgery may be related to fullness, sensitivity to odors, and pain medication. Any prolonged nausea and vomiting needs to be reported to the surgeon's office.

- Learn to recognize when you are full. This will not happen immediately, but eating and drinking very slowly is critical and will become easier. Remember you're relearning all of your eating habits.
- Initially, concentrate on eating without distractions (e.g. don't eat while talking on the phone or watching TV.)
- Do NOT drink your fluids with a straw.
- If you believe that your pain medication is the cause of your nausea (do not take on an empty stomach), please call your surgeon's office to possibly have the prescription changed.
- Stay hydrated - fluids should be continuously sipped all day long to prevent dehydration.

Here is a review of eating related things that may cause nausea and vomiting:

- Eating too fast
- Not chewing food well
- Eating food that is too dry
- Eating too much food at once
- Eating solid foods too soon after surgery
- Drinking liquids either with meals or drinking 30 minutes before or after meals
- Lying down after a meal
- Eating foods that do not agree with you (your system is like a new baby’s)
- Eating/drinking foods at extreme temperatures
- **Not Following the Dietary Recommendations!**
Excessive vomiting may indicate that the stomach pouch is blocked. If vomiting occurs switch to your original clear liquid diet - if it continues for more than 24 hours, contact your surgeon and or come in to our office, since vomiting can lead to severe dehydration, a situation that needs to be taken seriously.

Vomiting in patients with the Band may actually cause a complication called slippage, during which stomach tissue slides above the Band and becomes trapped. This can be a surgical emergency. For this reason, Lap Band patients need to take even more precautions against eating behaviors that may lead to vomiting.

Dehydration

Dehydration will occur if you do not drink enough fluids. Symptoms include fatigue, dark colored urine, dizziness, fainting, lethargy, nausea, low back pain (a constant dull ache across the back), and a whitish coating on the tongue. Dehydration may lead to abnormal heart rate from low potassium levels if not treated, numbness in your extremities, and even bladder & kidney infections. Contact our office if you believe that you may be dehydrated. In some cases you may need to have blood tests done or even be admitted to the hospital so that fluids can be given through your veins.

**Note: If your urine is dark and your mouth is dry, you are not drinking enough.**

This is what you can do in order to prevent dehydration:

- Buy a sports bottle and take it with you everywhere so you can sip water all day. *Remember NO STRAWS.*
- Drink at least 64 ounces of fluids per day. Increase this amount if you are sweating.
- Follow the Dietary Guidelines.
- Avoid caffeine-containing beverages - they can act as a diuretic and cause dehydration. Unsweetened herbal iced tea or decaffeinated coffee are okay to use.
- If you have difficulties drinking due to nausea, suck on ice chips or make Popsicles out of smart water®, Crystal Light® or Fruit-2-O®. **Do not use Regular Gatorade® it contains sugar** and may cause dumping syndrome.

Bowel Habits

It is normal for you to have one to three bowel movements of soft stool per day. It may be foul smelling and associated with flatulence (gas). Some patients have loose stools for a few months. Most of these changes resolve within the first year
after surgery as the intestines adapt. Please call your surgeon, should you have persistent diarrhea after that time.

After restrictive surgery, the amount of food consumed is greatly reduced, and the quantity of fiber or roughage consumed may be much smaller. Consequently, the amount of bowel movements will be diminished, causing less frequent bowel activity and sometimes constipation. The most common cause of constipation is not drinking enough liquids. If constipation persists despite adequate fluids, a stool softener may be indicated to avoid those difficulties.

**Keeping your bowel movements regular:**

- Remember that your stools will be soft until you eat more solid food.
- Lactose intolerance and high fat intake are generally the culprits of loose stool and diarrhea. Avoid all high fat foods and discontinue the use of all cow milk products.
- If cramping and loose stools (more than 3 per day) persist for more than two days, please call your surgeon’s office.
- Constipation is usually due to a lack of adequate fluid intake; push more fluids

**Flatulence:**

It is important to remember that everyone has gas in the digestive tract. Gas comes from two main sources: swallowed air and normal breakdown of certain foods by harmless bacteria that are naturally present in the large intestines. Many carbohydrate foods cause gas; fat and protein produce very little. Foods known to cause gas are beans, veggies, some fruits, soft drinks, whole grains/wheat and bran; cow’s milk and milk products, foods containing sorbitol and diet products.

Here are some helpful hints:

- Eat your meals slowly, chewing food thoroughly.
- Lactose intolerance can be the culprit of gas. Discontinue the use of dairy products. Yogurt is okay.
- Avoid eating/chewing gum and hard candy.
- Eliminate carbonated beverages.
- Remedies include Lactobacillus, acidophilus, natural chlorophyll, Gas X® chewable tablets, and Gaviscon®
Anemia

We recommend that all menstruating women take an iron supplement in order to prevent anemia. Please contact your Physician in order to find out which iron supplement is best for you (in general, an acidic or elemental form will work best with GBP patients; FeSO4 will NOT work in GBP patients since we’ve bypassed the distal stomach/pyloris/duodenum). Signs of anemia include pallor (looking pale), weakness, fatigue, dizziness and shortness of breath. Iron supplement should also be taken at bedtime to enhance absorption.

Transient Hair loss/Skin Changes

Hair thinning or loss is expected after rapid weight loss. Unfortunately, it does not make it any less disheartening. During the phase of rapid weight loss, calorie intake is much less than the body needs, and protein intake is marginal. In some patients, hair thinning or hair loss may occur. This is transient (temporary), and usually resolves when nutrition and weight stabilize. The hair loss usually occurs anywhere from 3 to 9 months after surgery (more common for Gastric Bypass). The same reason for the hair loss can also cause changes in your skin texture and appearance. It is not uncommon for patients to develop acne or dry skin after surgery. Protein, vitamins and water intake are also important for healthy skin. You can minimize the loss of hair by taking your multivitamin daily and making sure that you consume at least 70 grams of protein per day. We advise patients to avoid hair treatments and permanents - no need to stress your hair from the outside! If after about 9 months you start to lose hair, this can be a sign of protein malnutrition. Always make sure you’re getting enough protein in your diet.

Scars

Scars are expected after any surgery. The size of the scars depends on the type of procedure (open versus laparoscopic) and how your body heals. Scars are a fact of life, but there is a way to make them less visible. Once your incision is fully healed, you may start using silicone pads such as Curad® Scar therapy™ to make the scars look softer, smoother, flatter and closer to your skin’s natural color. Keep your scars out of the sunlight to help them heal properly.

Sex/Pregnancy

You may resume sexual activity when you feel physically and emotionally stable. Sexually active women of childbearing age will need to use birth control, as fertility may be increased with weight loss. Oral contraceptives may not be fully absorbed. Discuss alternative forms of birth control (at least double methods recommended) with your gynecologist or family doctor before surgery to have a definitive plan.
Many severely obese women are also infertile because the fatty tissue soaks up the normal hormones and makes some of its own as well. This completely confuses the ovaries and uterus, and causes a lack of ovulation. However, as weight loss occurs, this situation may change quickly. This happens often enough and deserves a special warning. You may start planning a pregnancy after 18 months, when it is safe for you to conceive. *It is imperative not to become pregnant before this time, since we want both you and the baby to be healthy and safe.* It is unwise to conceive during the rapid weight loss phase, as this may harm you and the baby since adequate nutrition may not yet be established. You risk serious birth defects, fetal demise (death) and serious health issues if you become pregnant before your body has had a chance to metabolically stabilize. Should you become pregnant, we ask that you arrange for your OB/GYN to contact your surgeon's office. They will be able to discuss specific information about your surgery, so the specialists can collaborate their efforts.

**Malnutrition**

If you had Gastric Bypass, because of the way your digestive system has been “rearranged” you will be at risk for malabsorption of many important vitamins, minerals and nutritional components. You must take your vitamin and mineral supplements daily. You must also get a yearly physical and regular lab work done. This can also be true for Lap Band patients. Early discovery of malnutrition problems can be easily corrected, whereas waiting until you have symptoms can lead to more complex and uncomfortable treatments not to mention serious side effects.

**Calcium**

All women start loosing calcium from their body’s stores at age 28 and it is advised that all women and likely most men should supplement calcium daily. *Specialized vitamins kits have been arranged with Bariatric Advantage and are required to be ordered prior to having surgery to ensure you are in the best possible nutritional state prior to surgery.*
Section VII:

Bariatric
Gastric Bypass
Diet

The Basics

Since Bariatric Surgery will reduce the size of your stomach to 1-2 ounce (about the size of a golf ball), this will cause a reduction in your food consumption. Portion control and food texture is crucial to your success after surgery. The goal of surgery and your diet is to maximize your nutrient intake by consuming small meals and snacks throughout the day. After Gastric Bypass surgery, Dumping Syndrome may occur after consuming simple sugars such as sweets and desserts. We recommend avoiding these types of food. Controlling food texture is very important in the first weeks following surgery to allow for complete healing.
**Preparation** - 5 days before surgery - sugar-free liquids ONLY, without caffeine plus protein supplements:

<table>
<thead>
<tr>
<th>Water</th>
<th>Protein Supplements (70 grams/2 servings minimum)</th>
<th>Crystal Light</th>
<th>Sugar-Free Kool-Aid</th>
<th>Sugar-Free Popsicles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broth</td>
<td>Low sodium Chicken or Beef (or homemade stocks)</td>
<td>Decaf tea/coffee with sugar substitute</td>
<td>Sugar-Free Jell-o *No Red</td>
<td>Diet Soft Drinks (Not Soda, and only non-carbonated)</td>
</tr>
</tbody>
</table>

64 ounces (8- 8-ounce cups) of water or other No-calorie, non-carbonated liquid (no alcohol)

**Compliance with the preoperative diet:**

- Shows your compliance with following your doctor’s recommendations, and
- Will help prepare you for the lifestyle changes after the procedure, and will help to shrink your liver for an easier surgery

**DIET STAGES FOLLOWING YOUR SURGERY**

The diet will transition from liquids to purees to solids by the fifth and final stage. Upon reaching the 5th stage, your diet will consist of small, low fat; low/no sugar meals to be consumed over at minimum a 30-minute interval. Fluid continues to be important and a goal of 64 ounces per day is encouraged. You are **NOT** to use a straw when drinking your liquids, it could make it difficult to control volume intake and may fill up your pouch with air.

**It is important NOT to advance yourself early.**

You must wait until your surgeon / dietitian visit to be advanced.

*Serious Complications can result if you advance your diet before you have been cleared or advised to by the Doctor or Dietitian.*
Stage 1:
(1st Day after Gastric Bypass surgery)

- You will drink/chew on 1-2 ounce of water or ice chips / sugar free popsicles slowly over each waking hour **after your upper GI clearance**
- Sips only - do not drink entire ounce all at once
- After 6-12 hours of this if no problems, may increase liquids' pace

Stage 2:
(2nd Day after Gastric Bypass surgery)

- You will start drinking sugar free clear liquids
- Advance 2-6 ounces of fluid **each waking hour**
- Acceptable Fluids:
  - Water, broth, coffee / tea with sugar substitute
  - Crystal Light
  - diet gelatin / "no sugar added", sugar-free popsicles (Do not use regular Italian Ices or fruit bars)

Stage 3
(Day Three after the Gastric Bypass)

THIS STAGE IS TO START: Sugar-free Liquids and Protein Supplements -

- Follow this stage for roughly 2 weeks
- Daily Goals:
  - Minimum of 64 ounces of fluid
  - Minimum of 70 grams of protein (you may only be able to get in 48 grams)
- Sip slowly - Do not drink more than 8 ounces of any fluid in one hour
- Avoid fruit juices
- Possible Protein Supplements:
  - GNC ProPerformance (either 100% Whey or Soy/Whey)
  - Isopure Liquid or Powder Protein Supplement (available at GNC/Vitamin World)
  - Whey Protein Shot (Body Fortress) or powder (available at Wal-Mart)
  - Unjury Protein Powder
  - Nectar by Syntrax
Other Acceptable Fluids to try after tolerance of clear liquids:

- Diet tomato or diet V-8 juice (vegetable juice only - no fruit juice)
- skim milk
- "no sugar added"/sugar-free, fat free fudgicles
- No Sugar / No Carb Carnation Instant Breakfast (this is not a protein source) mixed with 8 ounces of skim milk/lactaid

Sample Meal Plan - Stage 3:

8 am  4oz serving protein supplement
9 am  4-8 ounces sugar free liquid
10 am 4oz serving protein supplement
11 am  4-8 ounces Tomato juice
12 pm 4oz serving protein supplement
1-8 pm Repeat above pattern

Start with the smaller servings (4 oz) and gradually increase as tolerated to a goal of 8 oz. over 3-4 weeks.

Stage 4:

(Roughly 2 WEEKS AFTER GASTRIC BYPASS)
Puree + 1-2 serving of Liquid Protein Supplement

You will now be progressing to pureed foods, including meats, dairy, fruits and vegetables. The key here is texture. Consuming chunks of food could block the outlet to your stomach or cause vomiting. Over-eating could cause vomiting or stretching of the pouch. Start with small (teaspoon sized) portions and stop before you feel full.

- Remember, protein is important to maintain lean muscle while you are losing weight, so eat your protein first followed by the fresh fruit, vegetable, or dairy.
- Consume your meal over 30 minutes and avoid liquids 30 minutes before your meal and 30 minutes after; drinking with meals washes foods through and will decrease satiety (feeling of fullness).
- Continue a minimum of 64 ounces of fluids and increase to 70 grams of protein daily
- Avoid: fruit juice, and ALL starches (such as mashed potato, hot and cold cereals, crackers) until the final stage
• Chewing well is NOT sufficient - you must blenderize all your food!!!
• Examples of high protein foods:
  o Lean beef/pork/fish (blenderized or pureed)
  o Skinless chicken or turkey (blenderized or pureed)
  o Eggs, egg whites or egg substitute
  o Low fat cheese (< 5 grams fat / serving)
  o Lite yogurt (sweetened with aspartame & fructose or Splenda)
  o Low fat cottage / ricotta cheese

**Preparation of Pureed Foods:**

All shellfish, chicken, eggs, fish, tofu, or meats (most difficult) should be grilled, baked, broiled, roasted, steamed or micro-waved. Process in a blender or food processor until smooth (liquefy speed is best). **Make sure food is moist.** Moisten with broth or stock, skim milk, lemon juice, tomato juice, plain tomato sauce or fat-free soup, fat-free salad dressing, soy sauce or vinegar. If the food is still too thick - add more fluids. Feel free to add spices, herbs, salt, pepper, lemon peel, etc to enhance flavor; keep from adding fats if possible.

**Sample Meal Plan - Stage 4:**

8 am 6-ounce light low sugar yogurt (sweetened with aspartame and fructose)
9 am 4oz serving protein supplement
10 am 8 ounces fluids
Noon 1 ounce pureed beef (gradually increase to 2 ounces) + ¼ cup puree vegetable
1 pm 4oz serving protein supplement
2 pm 1 oz low fat cheese with ¼ cup applesauce (unsweetened)
3-8 pm Vary foods and fluids as outlined above

Please use the following guide to help you determine acceptable foods while on the 4th stage of the diet:

<table>
<thead>
<tr>
<th>Protein-Rich foods</th>
<th>Foods Allowed</th>
<th>Foods NOT Allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pureed meats, fish, and poultry, pureed tuna/chicken salad, pureed tofu, silken tofu, and Eggs (Scrambled)</td>
<td>Chopped, ground, non-pureed meat, chicken salad, tuna salad, liverwurst, hot dogs, fried fish, canned fish in oil, toddler baby</td>
<td></td>
</tr>
<tr>
<td>Category</td>
<td>Examples</td>
<td>Notes</td>
</tr>
<tr>
<td>--------------------------</td>
<td>--------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Calorie-free beverages</td>
<td>Water, decaf coffee/tea, sugar-free flavored water, such as: Crystal light, Fruit-2-O, diet Snapple</td>
<td>carbonated beverages like seltzer/diet soda, alcohol, fruit juice, fruit drinks</td>
</tr>
<tr>
<td>Cereal, Bread &amp; Crackers</td>
<td>None</td>
<td>All</td>
</tr>
<tr>
<td>Fats</td>
<td>Cooking Spray, fat-free or light mayonnaise, margarine, low fat butter</td>
<td>All others</td>
</tr>
<tr>
<td>Fruits</td>
<td>Pureed, no sugar added canned fruit, pureed fresh fruit (only one fruit at a time to be introduced).</td>
<td>Fruit juice, canned fruit in syrup, dried fruit</td>
</tr>
<tr>
<td>Vegetables</td>
<td>Tomato Juice, V-8, pureed vegetables, *Vegetables in the broccoli/cabbage family and dried beans are gas-forming and may cause discomfort</td>
<td>raw vegetables, potatoes or sweet potato, fries, chips, popcorn, toddler baby vegetables</td>
</tr>
<tr>
<td>Soup</td>
<td>Broth, Low fat strained soup w/o starches</td>
<td>All other soups</td>
</tr>
<tr>
<td>Milk &amp; Milk Products</td>
<td>Low fat cheese (not all cheeses apply/read labels), low fat cottage cheese (1%), part skim ricotta, skim or 1% milk, Lactaid milk, plain soy milk, plain yogurt, light smooth yogurt (sweetened with aspartame and fructose or Splenda)</td>
<td>2% or whole milk, yogurt with added sugar, fruit pieces or muesli, cream, flavored soy milk, chocolate milk</td>
</tr>
<tr>
<td>Starches</td>
<td>None</td>
<td>Rice, Pasta, crackers, hot and cold cereals</td>
</tr>
<tr>
<td>Sweets &amp; Desserts</td>
<td>diet gelatin, no sugar added popsicles or fudgicles, Fruit-2-0 ice, sugar-free pudding</td>
<td>Italian Ices, custard, cakes/pies, sherbet, ice cream, fruit bars</td>
</tr>
<tr>
<td>Misc</td>
<td>salt, Splenda, Sweet &amp; Low, Equal, spices - granulated or powdered forms, fat-free creamer, Mrs. Dash</td>
<td>Sugar, sweetened creamer, seeds, nuts</td>
</tr>
</tbody>
</table>
Stage 5:
(4th Week after Gastric Bypass -
Soft solids progressing to regular foods)

TO BE STARTED:
- Goal of 3 meals and 2-3 small (high protein) snacks daily for gastric bypass patients
- Again, aim for a minimum of 64 ounces of fluids per day - Avoid beverages with alcohol or caffeine. Also, sugary drinks should be avoided as these could cause Dumping Syndrome, slowed weight loss or weight gain.
- Avoid drinking liquids 30 minutes before meals and 30 minutes after as well as during your meal.
- Certain foods may not be tolerated
- Common foods which may cause intolerance/problems include:
  - Red meat
  - Poultry (pounded to ⅛ inch thickness may be better tolerated)
  - Bread, Bagels (toast and crackers may be better tolerated)
  - Raw fruits & vegetables - especially with peels and membranes
  - Deli meats (recommend shaved not sliced)
- Milk and dairy are good sources of calcium and protein - try to drink 8 ounces of skim milk or low fat yogurt each day
- Introduce fresh fruits / vegetables slowly - start with canned fruits (no sugar added) and well-cooked vegetables first. *Remember these are Carbohydrates!
- Starches: 2 servings / day (⅛ cup, 2-3 crackers, ½ slice bread = 1 srvg)
- Fruits: 2-3 servings / day (⅛ cup, ½ piece = 1 srvg)
- Continue to limit fats - try fat free or low fat products.
**SAMPLE MEAL PLAN:**  
**STAGE 5 - GASTRIC BYPASS**

<table>
<thead>
<tr>
<th>TIME</th>
<th>FOOD/DRINK</th>
<th>PROTEIN (GRAMS)</th>
<th>CALORIES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Breakfast</strong></td>
<td>½ small banana</td>
<td></td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>1 scrambled egg</td>
<td>7</td>
<td>75</td>
</tr>
<tr>
<td></td>
<td>1 Protein Shake</td>
<td>~15</td>
<td>150</td>
</tr>
<tr>
<td><strong>Snack</strong></td>
<td>8 ounces skim milk</td>
<td>8</td>
<td>90</td>
</tr>
<tr>
<td><strong>Lunch</strong></td>
<td>2 ounces tuna</td>
<td>14</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>1 tbsp. light mayonnaise</td>
<td></td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>3 saltines</td>
<td>1</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>½ orange</td>
<td></td>
<td>30</td>
</tr>
<tr>
<td><strong>Snack</strong></td>
<td>1 Protein Shake</td>
<td>~15</td>
<td>150</td>
</tr>
<tr>
<td>or</td>
<td>½ cup sugar free, fat free pudding</td>
<td></td>
<td>70</td>
</tr>
<tr>
<td><strong>Dinner</strong></td>
<td>2 ounces chicken breast</td>
<td>14</td>
<td>110</td>
</tr>
<tr>
<td></td>
<td>½ cup cooked carrots</td>
<td>1</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>½ cup rice</td>
<td>1</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>½ tsp. margarine</td>
<td></td>
<td>22</td>
</tr>
<tr>
<td><strong>Snack</strong></td>
<td>1 cup fat free, sugar free yogurt</td>
<td>8</td>
<td>120</td>
</tr>
</tbody>
</table>

**SAMPLE MENU:** 74 grams (gms) protein / 1077 calorie

We recommend that you introduce one new food at a time while beginning Stages 4 and 5 of the diet to assess tolerance. If you develop a food intolerance/problem discontinue that food for a week or two and then reintroduce it. Keep in mind, that for some patients certain food intolerances/problems do not improve.

**REMEMBER**
It is still possible to over stretch your pouch, so watch your portion sizes. Also continue to limit fats, sweets, and sugar intake to maximize your weight loss and maintenance. *NO Chewing Gum!*

*Never advance your diet before you are advised or told to because serious complications can occur.*
If you have any questions or concerns about your diet, you are to call your surgeons office at 843-347-3900.

**Just remember……………**

♦ It is still possible to weaken and over-stretch your stomach by not being careful about what and how much you eat. Continue to drink slowly and limit portion sizes.
♦ Maintain a food and fluid record to help you monitor your intake.
♦ Daily intake should be: 1000-1200 calories and minimum of 70 grams protein. Fitday.com is a helpful website to help track your intake.
♦ Consume your meals slowly so that a meal lasts at least 30 minutes.
♦ Consumption of starches will increase calories, fiber and nutrients. You are encouraged to eat 1-2 servings (1/4 cup or ½ slice each) per day.
♦ Consumption of fruits and vegetables will increase. Re-introduce raw fruits and vegetables gradually. You may eat 2-3 servings (1/4 cup or ½ whole fruit) of each per day.
♦ Avoid fats and sweets; these can lead to excessive calorie intake.
♦ Continue to take your multi-vitamin, B12 and calcium supplements daily.
♦ Maintain a regular exercise program. You won’t loose, if you don’t move!

**Possible Side Effects**

**Dumping**
Dumping is an unpleasant side effect of eating too much sugar or carbohydrate

Signs of dumping:
* Rapid pulse and heartbeat
* Dizziness
* Sweating
* Blurred vision
* Nausea

**Grief**
It is very common to experience grief or sadness with the loss of a previous relationship with food. Some people feel sad, irritable, overwhelmed. Extra support may be helpful to talk about these feelings. Support can be obtained at Bariatric support meetings or speaking with a psychologist.

**Hair Loss**
Some patients may experience hair loss or thinning between months four and eight after surgery. The best way to prevent hair loss is to continue taking vitamin supplements as recommended by the surgeons and to focus on taking in adequate amounts of protein.
Most patients experience hair re-growth.

**Constipation**
Ways to counteract constipation:
* Be as physically active as possible - Exercise Daily
* Drink plenty of water
* Laxative

**Vitamin Deficiency**
Serious illness may result if you do not take your vitamins and minerals as prescribed by your surgeon. You will have your blood checked twice yearly to make sure you are getting enough vitamins
You need:
* Multi-Vitamin with minerals
* Calcium Citrate for strong bones and spine
* Sublingual Vitamin B 12 to prevent anemia
* Iron for healthy blood and energy
Bariatric Lap Band Diet

The Basics

Since Bariatric Surgery will reduce the size of your stomach to 1-2 ounce (about the size of a golf ball), this will cause a reduction in your food consumption. Portion control and food texture is crucial to your success after surgery. The goal of surgery and your diet is to maximize your nutrient intake by consuming small meals and snacks throughout the day. Controlling food texture is very important in the first weeks following surgery to allow for complete healing. It is imperative that when you feel full you stop eating. Also, do not drink at least 30 minutes before meals, during the meal and at least 45 minutes following meals - as this could “wash out” the pouch and negate the desired effect of fullness or “satiety” within your new gastric reservoir - above the band.
5 days before surgery
Sugar-free liquids ONLY, without caffeine:
*Don’t forget your protein supplement

<table>
<thead>
<tr>
<th>Water</th>
<th>Protein Supplements (70 grams/2 servings minimum)</th>
<th>Crystal Light</th>
<th>Sugar-Free Kool-Aid</th>
<th>Sugar-Free Popsicles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broth</td>
<td>Decaf tea/coffee with sugar substitute</td>
<td>Sugar-Free Jell-o *No Red</td>
<td>Diet Soft Drinks (Not Soda, and only non-carbonated)</td>
<td></td>
</tr>
</tbody>
</table>

64 ounces (8-8-ounce cups) of water or other No-calorie, non-carbonated liquid (no alcohol)

Compliance with the preoperative diet:
• Shows your compliance with following your doctor’s recommendations, and
• Will help prepare you for the lifestyle changes after the procedure, and will help to shrink your liver for an easier surgery

DIET STAGES FOLLOWING YOUR SURGERY

The diet will transition from liquids to purees to solids by the fifth and final stage. Upon reaching the final stage, your diet will consist of small, low fat, low sugar meals to be consumed over at minimum a 30-minute interval. Fluid continues to be important and a goal of 64 ounces per day is encouraged. Our recommendation is to avoid using a straw when drinking your liquids, it could over fill your pouch with air and make it difficult to control volume intake.

It is important NOT to advance yourself early.
You must wait until your surgeon/dietitian visit to be advanced.

Stage 3
(Sugar-free Liquids and Protein Supplements)

THIS STAGE IS TO START:
- Day one after the Lap Band procedure

- Follow this stage for 1-2 weeks
- Daily Goals:
  - Minimum of 64 ounces of fluid
  - Minimum of 70 grams of protein
- Sip slowly - Do not drink more than 8 ounces of any fluid in one hour
- Avoid fruit juices
- Possible Protein Supplements:
  - GNC ProPerformance (either 100% Whey or Soy/Whey)
  - Isopure Liquid or Powder Protein Supplement (available at GNC/Vitamin World)
  - Whey Protein Shot (Body Fortress)
  - Unjury Protein Powder
  - Nectar by Syntrax

Other Acceptable Fluids once clear liquids tolerated:
- Diet tomato or diet V-8 juice (vegetable juice only - no fruit juice)
- skim milk/lactaid milk
- "no sugar added"/sugar-free, fat free fudgicle

- Sample Meal Plan - Stage 3:

  8 am  4oz serving protein supplement
  9 am  4 ounces sugar free liquid
  10 am 4oz serving protein supplement
  11 am  4 ounces diet gelatin, sugar free Popsicle or salt free broth
  12 pm 4oz serving protein supplement
  1-8 pm Repeat above pattern

Stage 4:
(Puree + 1 - 2 serving of Liquid Protein Supplement)
• TO BE FOLLOWED FOR:

  o 2 WEEKS AFTER LAP-BAND as tolerated

  You will now be progressing to pureed foods, including meats, dairy, fruits and vegetables. The key here is texture. Eating chunks of food could block the outlet to your stomach or cause vomiting. Over-eating could cause vomiting, stretching of the pouch, or band slippage. Start with small (teaspoon sized) portions and stop before you feel full. Remember, protein is important to maintain lean muscle while you are losing weight, so eat your protein first followed by the fresh fruit, vegetable, or dairy.

  • Please Note:
    o Consume your meal over 30 minutes and avoid liquids during your meal and 30 minutes before and after your meal.
    o Increase to a minimum of 64 ounces of fluids and 70 grams of protein daily
    o Avoid: fruit juice and ALL starches (such as mashed potato, hot and cold cereals (grits), crackers) until the final stage
    o Chewing well is NOT sufficient - you must blenderize all your food!!!

  • Examples of high protein foods:
    o Lean beef/pork/fish (blenderized or pureed)
    o Skinless chicken or turkey (blenderized or pureed)
    o Eggs, egg whites or egg substitute
    o Low fat cheese (< 5grams fat / serving)
    o Lite yogurt (sweetened with aspartame & fructose or Splenda)
    o Low fat cottage / ricotta cheese

  Preparation of Pureed Foods:

  All shellfish, chicken, eggs, fish, tofu, or meats (most difficult) should be grilled, baked, broiled, roasted, steamed or micro-waved. Process in a blender or food processor until smooth (liquefy speed is best). Make sure food is moist. Moisten with broth or stock, skim milk, lemon juice, tomato juice, plain tomato sauce or fat-free soup, fat-free salad dressing, soy sauce or vinegar. If the food is still too thick - add more fluids. Feel free to add spices, herbs, salt, pepper, lemon peel, etc to enhance flavor; keep from adding fats if possible.

  Sample Meal Plan - Stage 4:

  8 am 6-ounce light yogurt (sweetened with aspartame and fructose)
9 am 4oz serving protein supplement  
10 am 8 ounces fluids  
Noon 1 ounce pureed beef (gradually increase to 2 ounces) + ¼ cup puree vegetable  
1 pm 4oz serving protein supplement  
2 pm 1 oz low fat cheese with ¼ cup applesauce (unsweetened)  
3-8 pm Vary foods and fluids as outlined above

Please use the following guide to help you determine acceptable foods while on the 2nd stage of the diet:

<table>
<thead>
<tr>
<th>Foods Allowed</th>
<th>Foods NOT Allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protein-Rich foods</td>
<td>Pureed meats, fish, and poultry, Eggs (scrambled), pureed tuna/chicken, pureed tofu, silken tofu</td>
</tr>
<tr>
<td>Calorie-free beverages</td>
<td>Water, decaf coffee/tea, sugar-free flavored water, such as: Crystal light, Fruit-2-O, diet Snapple</td>
</tr>
<tr>
<td>Cereal, Bread &amp; Crackers</td>
<td>None</td>
</tr>
<tr>
<td>Fats</td>
<td>Cooking Spray, fat-free or light mayonnaise, margarine, low fat butter</td>
</tr>
<tr>
<td>Fruits</td>
<td>Pureed, no sugar added canned fruit</td>
</tr>
<tr>
<td>Vegetables</td>
<td>Tomato Juice, V-8, pureed Steamed vegetables,</td>
</tr>
</tbody>
</table>

*Vegetables in the broccoli/cabbage family and dried beans are gas-forming and may cause discomfort*
<table>
<thead>
<tr>
<th>Soup</th>
<th>Broth, Low fat strained soup w/o starches.</th>
<th>All other soups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milk &amp; Milk Products</td>
<td>Low fat cheese (not all cheeses are allowed – watch your labels), low fat cottage cheese (1%), part skim ricotta, skim or 1% milk, Lactaid milk, plain soy milk, plain yogurt, light smooth yogurt (sweetened with aspartame and fructose or Splenda)</td>
<td>2% or whole milk, yogurt with added sugar, fruit pieces or muesli, cream, flavored soy milk, chocolate milk</td>
</tr>
<tr>
<td>Starches</td>
<td>None</td>
<td>Rice, Pasta, crackers, hot and cold cereals</td>
</tr>
<tr>
<td>Sweets &amp; Desserts</td>
<td>diet gelatin, no sugar added popsicles or fudgicles, Fruit-2-0 ice, sugar-free pudding</td>
<td>Italian Ices, custard, cakes/pies, sherbet, ice cream, fruit bars</td>
</tr>
<tr>
<td>Misc</td>
<td>salt, Splenda, Sweet &amp; Low, Equal, spices - granulated or powdered forms, fat-free creamer</td>
<td>Sugar, sweetened creamer, seeds, nuts</td>
</tr>
</tbody>
</table>

**TRANSITION STEP**
FOR LAP-BAND PATIENTS ONLY

After one to two weeks on pureed consistency, you will now progress slowly toward regular consistency. It is important to be cautious of chunky consistencies and hard foods. You want to aim for very soft unsweetened canned fruits and well-cooked vegetables. Meats should be finely chopped and very moist. By using the following chart you should be able to transition safely:

<table>
<thead>
<tr>
<th>Foods Allowed</th>
<th>NOT Allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protein-Rich foods</td>
<td>Chopped meats, fish, and poultry, tuna/chicken salad, tofu, silken</td>
</tr>
<tr>
<td></td>
<td>tofu</td>
</tr>
<tr>
<td>------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td><strong>Calorie -free beverages</strong></td>
<td>Water, decaf coffee/tea, sugar-free flavored water, such as: Crystal light, Fruit-2-O, diet Snapple</td>
</tr>
<tr>
<td>Cereal, Bread &amp; Crackers</td>
<td>None</td>
</tr>
<tr>
<td>Fats</td>
<td>Cooking Spray, fat-free or light mayonnaise, margarine, low fat butter</td>
</tr>
<tr>
<td>Fruits</td>
<td>no sugar added canned fruit, cantaloupe, melon</td>
</tr>
<tr>
<td>Vegetables</td>
<td>Diet Tomato Juice, diet V-8, pureed vegetables, chili</td>
</tr>
<tr>
<td>Soup</td>
<td>Broth, Low fat soup w/o starches.</td>
</tr>
<tr>
<td>Milk &amp; Milk Products</td>
<td>Low fat cheese, low fat cottage cheese (1%), part skim ricotta, skim or 1% milk, lactaid milk, plain soy milk, plain yogurt, light smooth yogurt (sweetened with aspartame and fructose or Splenda)</td>
</tr>
<tr>
<td>Starches</td>
<td>None</td>
</tr>
<tr>
<td>Sweets &amp; Desserts</td>
<td>diet gelatin, no sugar added popsicles or fudgicles, Fruit-2-0 ice, sugar-free pudding</td>
</tr>
<tr>
<td>Misc</td>
<td>salt, Splenda, Sweet &amp; Low, Equal, spices - granulated or powdered forms, fat-free creamer</td>
</tr>
</tbody>
</table>

**Stage 5:**
(4th - 5th WEEK AFTER LAP-BAND/Soft solids progressing to regular foods)
• Goal of 3 meals and 1-2 small snacks daily after Lap-Band
• Aim for a minimum of 64 ounces of fluids per day - Avoid beverages with alcohol or caffeine. Also, sugary drinks should be avoided as these could cause slowed weight loss or weight gain.
• Avoid drinking liquids during meals and 30 minutes before and after your meal.
• Certain foods may not be tolerated
• Common foods which may cause intolerance include:
  - Red meat
  - Poultry (pounded to ¼ inch thickness may be better tolerated)
  - Bread, Bagels (toast and crackers may be better tolerated)
  - Raw fruits & vegetables - especially with peels and membranes
  - Deli meats (recommend shaved not sliced)
• Milk and dairy are good sources of calcium and protein - try to consume 8 ounces of skim milk or low fat yogurt each day
• Introduce fresh fruits / vegetables slowly - start with canned fruits and well-cooked vegetables first. *Remember these are Carbohydrates!
• Starches: 2 serving / day (¼ cup, 2-3 crackers, ¼ slice bread = 1 srvg)
• Fruits: 2-3 servings / day (¼ cup, ½ piece = 1 srvg)
• Continue to limit fats - try fat free or low fat products.

SAMPLE MEAL PLAN MAINTENANCE STAGE 5 - LAP-BAND

<table>
<thead>
<tr>
<th>TIME</th>
<th>FOOD/DRINK</th>
<th>PROTEIN (grams)</th>
<th>CALORIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breakfast</td>
<td>½ small banana</td>
<td></td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>1 scrambled egg</td>
<td>7</td>
<td>75</td>
</tr>
<tr>
<td></td>
<td>1 slice toast</td>
<td>1</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>1 protein shake</td>
<td>~15</td>
<td>150</td>
</tr>
<tr>
<td></td>
<td>1 tsp. margarine</td>
<td></td>
<td>45</td>
</tr>
<tr>
<td>Lunch</td>
<td>3 oz tuna</td>
<td>21</td>
<td>75</td>
</tr>
<tr>
<td></td>
<td>1 tbsp. light mayonnaise</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td></td>
<td>½ orange</td>
<td></td>
<td>30</td>
</tr>
<tr>
<td>Dinner</td>
<td>3 oz chicken breast</td>
<td>21</td>
<td>165</td>
</tr>
<tr>
<td></td>
<td>¼ cup cooked carrots</td>
<td>1</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>1/4 cup rice</td>
<td>1</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>1 tsp. margarine</td>
<td></td>
<td>45</td>
</tr>
<tr>
<td>Snack</td>
<td>1 protein shake</td>
<td>~15</td>
<td>150</td>
</tr>
</tbody>
</table>

(82 grams protein and 1030 calories)

We recommend that you introduce one new food at a time while beginning Stages 4 and 5 of the diet to assess tolerance. If you develop food intolerance discontinue
that food for a week or two and then reintroduce it. Keep in mind, that for some patients certain food intolerances may not improve.

**REMEMBER**
It is still possible to over stretch your pouch, so watch your portion sizes. Also continue to limit fats, sweets, and sugar intake to maximize your weight loss and maintenance. **NO CHEWING GUM!!

When Do I need a Fill?
Lap Band patients will start with the first fill at 6 weeks after surgery if needed. The goal is for the Band to curb your hunger and help you feel full with a very small amount of food, thereby causing weight loss. By answering YES to any of the following questions, you may be a candidate for a fill.

- Are you hungry between meals?
- Are you able to eat more than 3 ounces of food at a meal?
- Are you losing less than 1-2 pounds each week?

Each person is different; you may need one, two, five or more fills to reach proper restriction. The key is to monitor your hunger and food intake, as well as your weight loss on a daily/weekly basis.

Just remember………………
♦ It is still possible to weaken and over-stretch your stomach by not being careful about what and how much you eat. Continue to drink slowly and limit portion sizes.
♦ Maintain a food and fluid record to help you monitor your intake.
♦ Daily intake should be: 1000-1200 calories and minimum of 70 grams protein. Fitday.com is a helpful website to help track your intake.
♦ Consume your meals slowly so that a meal lasts at least 30 minutes.
♦ Consumption of starches will increase calories, fiber and nutrients. You are encouraged to eat 1-2 servings (1/4 cup or ½ slice each) per day.
♦ Consumption of fruits and vegetables will increase. Re-introduce raw fruits and vegetables gradually. You may eat 2-3 servings (1/4 cup or ½ whole fruit) of each per day.
♦ Avoid fats and sweets; these can lead to excessive calorie intake.
♦ Continue to take your multi-vitamin and calcium supplements daily.
♦ Maintain a regular exercise program. What you take in you must put out in exercise.

Section VIII:
Short Term Complications
Early complications with gastric bypass and Lap Band operations have been low. The most frequent early complication is infection of the surgical incision, especially in the larger "open" surgery. However, infections can happen anywhere in your body. Examples of infection are pneumonia, bladder infection, and abdominal abscess. All infections must be treated. Prior to your surgery and after the procedure, antibiotics are administered. The antibiotics will decrease the risk of developing a wound infection. Also, a breath exercise machine (Incentive Spirometer) is used to keep your lungs expanded to help prevent pneumonia.

Morbidly obese people are at a high risk of developing "clots". Clots are known as "DVTs", Deep Venous Thrombosis, and can form in the veins of the legs. If clots migrate from the legs and go to the lungs, then they are known as "PE's", Pulmonary Embolus. PE's are the most frequent cause of acute death following a gastric bypass surgery, with an incidence of 1 in 200. The risk of DVT formation can be decreased by using blood thinners (Lovenox, a relative of Heparin), pneumatic compression boots for the legs, and WALKING.

Bleeding is a general risk following any surgery. Bleeding following gastric bypass or Lap Band can occur in the gastrointestinal tract, in the abdominal cavity and through the skin incisions. Bleeding occurs directly from blood thinner given to avoid blood clots or from other medications. Bleeding will usually resolve and stop without any surgical intervention. Infrequently, patients will require a blood transfusion after surgery. Very rarely, patients will require an additional operation for bleeding.

A serious complication after gastric bypass is a LEAK. Leaks can happen anywhere in the stomach or intestines. Your GI Tract (mouth, esophagus, stomach, intestines, and colon) is one continuous tube. During gastric bypass surgery, the "tube" is cut and sewn to re-arrange the bowel. A leak can develop at any of the cut areas. A leak can cause you to become very sick and will usually require another operation to repair the leak. There is a 1-5% chance of developing a leak (national statistic). After your surgery, a drain is left in your abdomen to help identify an early leak and drain operative fluid. An x-ray – contrast UGI is usually done for the gastric bypass patients before they go home and the drain is typically removed after review of that study prior to going home.

In some patients, the Lap Band may be too tight around the stomach tissue, causing nausea and vomiting with any oral intake. This may require further time in the hospital to receive intravenous fluid while waiting for the tissue swelling to resolve.
Section IX: Long Term Complications

General - Gastric Bypass and Lap Band

Wound herniation, or the separation of small sections of the abdominal wound, is a complication caused by the tremendous amount of pressure on that wound closure in a very obese abdomen. In patients over 300 pounds, this complication may occur in approximately 20% of open laparotomy weight loss surgery cases. In patients with lesser intra-abdominal pressure, the incidence is about 5%. A laparoscopic operation greatly reduces the risk of a wound hernia, as the size of the incision is much smaller. Hernias can be effectively repaired with surgery when the weight is lost. However, the need for another operation to have the hernia repaired is sometimes a cloud with a silver lining, as it allows a person to be able to afford to have the hanging skin removed at the same time.

The development of gallstones is related to the rapid and significant amount of weight loss, and therefore, is highest in the first six months after surgery. Gallstones are not a complication of surgery, but rather a complication of rapid weight loss. Obese persons have a very high rate of gallstone formation compared to normal weight persons, mainly because of the many weight loss/gain episodes that obese persons undergo. By age 50, nearly 50% of morbidly obese women have developed gallstones.

Gastric Bypass

Late complications with gastric bypass operations have been gratifyingly low. The most frequent late complication is weight gain due to enlargement of the pouch, enlargement of the outlet, and last, but not least, frank patient non-compliance.

Bowel obstruction due to a blockage from adhesions (scar tissue) can occur as it can after any abdominal operation, trauma, or intra-abdominal infection. Usually this presents with nausea and vomiting and frequently requires another operation to correct.

Stomal ulcer is an acid/peptic ulcer that occurs on or near the anastomosis (connection) between the stomach pouch and the bowel. An ulcer may also rarely occur in the usual duodenal ulcer position. The acid-peptic ulcer occurs in approximately 2-4% of patients which is not unlike the incidence in the general population, except that the stomal ulcer is much more likely to occur in smokers or patients who must continue to use non-steroid anti-inflammatory drugs (NSAID) such as ibuprofen, Aleve®, etc. You will be placed on a medication to help prevent the
formation of ulcers post-operatively for 6 months following surgery. Some patients may need to take this medication longer (even life-long in extreme cases!)

**Stomal stenosis or Stricture** is a narrowing of the outlet of the stomach pouch. This problem often requires outpatient endoscopic dilation for correction. Sometimes this procedure may need to be repeated 2-3 times to correct the problem.

**Iron deficiency anemia** is a complication of significance in the long term. It usually occurs in menstruating women who do not take extra iron supplements. It is almost always preventable. It is not difficult to treat, but must be recognized in order for it to be treated. This is one of the important reasons for long-term follow-up and blood tests.

**Additional vitamin deficiencies** can be a long-term complication following a Roux-en-y gastric bypass. These deficiencies may include protein, calcium, Vitamin B12, magnesium, and folate. It is extremely important to continue with your follow up after surgery and have your blood work monitored at the specified intervals: 3 months, 6 months, 1 year and annually thereafter (more frequently if necessary). After surgery you must take a multivitamin and calcium (1500 mg) for the rest of your life.

**Dumping Syndrome** Under normal physiologic conditions, the stomach and pylorus (the opening of the stomach into the small intestine) control the rate at which the gastric contents leave the stomach. That is, the stomach, pancreas and liver work together to prepare nutrients (or sugar) before they reach the small intestine for absorption. The stomach serves as a reservoir that releases food downstream at a controlled rate, avoiding sudden large influxes of sugar. The released food is also mixed with stomach acid, bile, and pancreatic juice to control the chemical makeup of the stuff that goes downstream and to avoid the “dumping syndrome”.

Dumping syndrome is usually divided into early and late phases. The two phases have separate physiologic causes and will be described separately. In fact, a patient usually experiences a combination of these events and there is no clear-cut division between them.

Rapid gastric emptying, or early dumping syndrome, happens when the lower end of the small intestine (jejunum) fills too quickly with undigested food from the stomach. After the RNY gastric bypass, patients can develop abdominal bloating, pain, vomiting, and vasomotor symptoms (flushing, sweating, rapid heart rate, light headedness). Finally, some patients have diarrhea. Since with the RNY Gastric bypass the stomach is not being used (hence the name) and a new, small pouch that directly connects to the small intestine is created, there may be dumping. Early dumping syndrome is due to the now rapid gastric emptying causing bowel distension plus movement of fluid from the blood to the intestine to dilute the intestinal contents. These symptoms
usually occur 30 to 60 minutes after eating and are called the early dumping syndrome.

Late dumping is related to the blood sugar level. The small bowel is very effective in absorbing sugar, so that the rapid absorption of a relatively small amount of sugar can cause the glucose level in the blood to rise rapidly. The pancreas responds to this glucose challenge by increasing the insulin output. Unfortunately, the sugar that started the whole cycle was such a small amount that it does not sustain the increase in blood glucose, which tends to fall back down at about the time the insulin surge really gets going. These factors combine to produce hypoglycemia (low blood sugar), which causes the individual to feel weak, sleepy and profoundly fatigued.

Obviously, surgeons consider dumping syndrome to be a beneficial effect of Gastric Bypass surgery. It provides a quick and reliable negative feedback for eating of the “wrong” foods. In practice, most patients do not experience full-blown symptoms of dumping more than once or twice. Most simply say that they have lost their taste for sweets. Warning: Late dumping is the mechanism by which sugar intake can create low blood sugar, and it is also a way for patients to get into a vicious cycle of eating. If the patient takes in larger amounts of a food that is closely related to sugar (simple carbohydrates like rice, pasta, potatoes) they could experience some degree of hypoglycemia in the hour or two after eating. The hypoglycemia stimulates appetite, and it’s easy to see where that is going...

Foods to Avoid

Here is a list of popular foods that are filled with empty calories and that can provoke “dumping syndrome”. The products provide mainly calories with limited nutritional value (protein, fiber, minerals and vitamins). Every bite counts after surgery. Avoid foods that contain sugar. Not only will they slow down your weight loss, but they may make you sick! Sugar causes “dumping syndrome” in patients who have had the gastric bypass procedure. Dumping, in short, is when sugars go directly from your stomach pouch into the small intestine causing heart palpitations, nausea, abdominal pain, and diarrhea. Filling up on concentrated sweets and other simple carbohydrates can prevent weight loss and good nutrition.

- Ice cream, Pudding
- Sweetened, fruited or frozen yogurt
- Candied fruit
- Canned or frozen fruit in heavy syrup
- Sweetened Fruit juice
- Sugar coated or sweetened cereal
- Sweet rolls and doughnuts
- Sports drinks
- Popsicles
- Cakes
- Pies
- Cakes and cookies
- Jellies
Lap Band

The less invasive nature and safety profile of the Lap Band surgery is an attractive feature; however, there is a different set of complications that are specific to the Band.

Slippage - Your stomach tissue can slide above the Band and get trapped. Vomiting or retching can increase your risks. A slipped Band will cause nausea and inability to eat or drink normally.

Erosion - The Band may erode or break through into the stomach tissue. Patients who have ulcer disease are at highest risk for erosion. This may present as pain or inability to eat or drink normally.

Port Infection - Your skin over the buried port will show redness, swelling and/or pain, indicating a possible infection of the port. Treatment includes antibiotic therapy and possibly removal and/or replacement of the port alone or the entire Band and port system.

Band/Port Malfunction - As this is a prosthetic implant, there is a possibility of malfunction, most commonly, leaking of the fluid within the Band and port. Your surgeon will suspect malfunction if you are not experiencing restriction despite multiple fills. This will require replacement of the Band.

Ultimately, any of these major complications may require removal or replacement of the Band through an additional operation.

Section X: Long Term Success
Follow-up

Follow-up is extremely important with Bariatric surgery. Read this surgery guide carefully before going to office visits, so that you can have some questions ready for the staff.

All Post-op Patients

Follow-up appointments are expected at 1-2 weeks, 6 weeks, three months, 6 months and 12 months. Of course other visits are encouraged, should you have any problems. After one year, the surgical team expects to see you twice a year, but yearly is acceptable. It is probably a good idea to have your annual physical exam scheduled before your follow-up with the surgical team, so you will not need to repeat tests and so you will remember to make the appointment.

It is important to have your blood work drawn at 6 months & 12 months and every year thereafter. Routine monitoring of protein, vitamin B12, B1, B6, magnesium, iron, folate and calcium levels are important for maintaining your health following gastric bypass surgery.

Lap Band Adjustments (also called Fills)

The Lap Band system is designed to be adjusted gradually after the operation to give each patient optimal tightness around the stomach. Starting at the 4th - 6th week, you will be adjusted at the Fill Clinic/office visit until optimal restriction is reached. An ideally adjusted Band will keep you from feeling hungry between meals, give you a sensation of fullness after a very small meal (about 3oz) and allow you to lose at least 1-2 lbs per week. By asking those three questions (Hungry between meals? Can eat more than 3oz at a meal? Weight loss is less than 1 lb per week?), you can assess your need for a fill. If the answer to any one of those questions is YES, call to speak with the Bariatric Care Coordinator to review these questions with you and to arrange for an office visit.

At each Fill Clinic/office visit, the Bariatric Care Coordinator or Nurse will review the proper eating habits and food choices and help finalize your need for a fill. A special needle is used to access the port that is buried under your abdominal skin during your office visit. You will have the procedure under X-ray guidance and this is done in the office. As you lose more weight, the procedure becomes easier as the abdominal wall becomes thinner. After each adjustment, you will be asked to drink water in the office to make sure that the Band is not too tight. You will then proceed to take in only fluids for 48 hours post Lap Band fill and then proceed to increase your diet. For the next few days, you should notice that a much smaller volume of food makes you full. This is the desired effect. However, if you notice that you cannot keep any food or fluids down, you need to call the office immediately as the Band may be too tight.
Optimal weight loss can only occur if the Band is appropriately filled; this process depends on your active participation and accurate information on your eating and fluid intake history. Note - typically band adjustments are done under fluoroscopic guidance with a contrast modified upper GI study on specific “band fill/adjustment” days. This may or may not be a covered benefit from your insurance.

Expected Weight Loss

Most Gastric Bypass patients experience a fairly rapid weight loss in the first 3 to 6 months following surgery. The greatest weight loss will occur in the first three months after the gastric bypass procedure. Most studies suggest that patients lose about 2/3 to 3/4 of their excess weight over the first two years. In other words, weight loss slows, but generally continues up to 12 to 18 months after surgery, averaging 50 to 80% of excess weight by some reports. At that time, the stomach pouch has stretched to hold more food and it is critical to adhere to the low fat, low sugar diet and exercise recommendations outlined in this guide to maintain your weight loss.

Band patients have a greater variability in weight loss, but can continue to lose weight for up to 5 years. The range of excess weight lost in the first year is 10 to 90%. The average weight loss reported after 1 year is 30% of excess weight. Weight loss can parallel that of Gastric Bypass by 2 or 3 years, but patients have to adhere to the postoperative diet more strictly and return for fills on a timely basis for optimal results. The average is 1-2 lbs. per week following the procedure if you are following all the guidelines outlined for success.

Long-term studies have shown that on average, patients keep off at least 1/2 of the excess weight over 5 to 15 years. Thus, there is often some weight regain after the first two years, but patients are much less obese even long after surgery.

Research has shown that the patients who exercised 3 or more times per week for a minimum of 30 minutes lost an additional 15% of their excess weight in 6 months than their cohorts who did not exercise as strenuously.

Lifestyle Changes

You cannot lose weight or maintain good health without having a healthy lifestyle. Do you have an unhealthy lifestyle? Here are some simple things you can do right now to keep yourself and your friends and family on tract:

- Get rid of all the junk food in your house. No, the kids don’t need junk food either! Restack your cupboards with healthy snacks your whole family can enjoy. This can be the start of new healthy habits for the whole family!
- Have allotted time for working out/exercise.
• Have a daily schedule to ease the chaos and decrease some of the stress in your life. This may mean taking some activities out of your schedule or your kids’ activities. Often, we plan to do more than we have time for completing.

• Cut the time you and your family spend each day watching TV or using the computer. Spend more time doing more active things such as playing outside with the kids or going for a walk.

• Plan your social life with activities that do not include food, such as going out to a movie rather than going out to dinner.

Maintaining the weight

We have been referring to bariatric surgery as a tool to help you lose weight. The goal of the surgery is to allow you to lose weight with the fewest possible restrictions to your diet. It is not automatic, and your behavior after surgery plays a very large part in your outcome. How you use the tool will effect your weight loss. Please follow the recommended guidelines in this workbook. Your window of weight loss is anywhere from 12 to 18 months. With exercise you can control the weight loss and may see weight loss for up to 24 months. (Lap Band patients can expect weight loss up to 3 to 5 years.)

Gastric bypass works in part by making the stomach much smaller so that one feels full sooner. It also probably works to curb the appetite because the food goes quickly into the small intestine, and chemical messages are sent to the brain telling the satiety centers that food is present. The surgery will give you a full feeling on a much smaller meal, improve the sense of self-control and help many avoid sugary foods due to dumping syndrome.

Lap Band relies solely on restriction of the stomach. The goal is to give you the sensation of fullness and lack of hunger in order to take in less food, thereby allowing you to lose weight gradually. An optimally adjusted Band will allow you to feel satisfied with a small meal.

By eating only at mealtime and only until you feel full, your daily food intake will be decreased enough to provide a weight loss. Gradually, the rate of weight loss will decrease and your weight will stabilize. Your responsibility is to avoid snacking, grazing (continuous nibbling), choose healthy foods, be active and exercise daily, and make psychological adjustments. Be sure to keep your regular office appointments so that your weight loss can be monitored. Participate in group meetings and continue to use this guide to help you through the surgery process.

Again, surgery is a tool - something to help you do the work. In order to get down to a healthy weight and maintain it, you must adjust your eating habits and
exercise patterns. Our staff will be glad to guide, support and motivate you, but you will need to do the work in order to reach your goals.

The 8 rules of weight loss

There are eight rules that one must follow in order to attain a goal weight that is close to one's ideal body weight. All successful patients who have had the gastric bypass have these behaviors in common. This will guarantee not only good weight loss, but also will improve your stamina, energy level and overall good health.

1. Consumption of an adequate amount of liquid, preferably water, is crucial. You should consume a minimum of 48 to 64 ounces of liquid each day. This can only be done slowly, sipping fluids throughout the day. Never drink more than 2 ounces of liquid over a 10 to 15 minute period. On very hot or humid days, or when exercising, the daily liquid requirement increases by 20%. This is necessary in order to prevent dehydration.

2. Solid foods should only be eaten 3 times per day (this should correspond to meal times). Between meals snacking or "grazing" on small amounts of food throughout the day will sabotage your weight loss and result in the inability to lose an adequate amount of weight. Snacks are to be small; about one third to one half the size of your meals.

3. The primary source of nutrition should be protein. Aim for a minimum of 70 grams daily, such as eggs, fish, meat, etc. Carbohydrates (whole grains, fresh fruits and vegetables, etc.) and fats (butter, oil, etc.) should make up the rest of your diet. Your intake will be approximately 1000 to 1200 calories at your final stage.

4. Never drink liquids when eating solid foods. Liquids should be avoided for a period of 30 minutes before and 30 minutes after eating solid food or meals.

5. Avoid foods that contain sugar. Not only will they slow down your weight loss, but they can make you sick! Sugar causes "dumping syndrome" in patients who have had the gastric bypass procedure. Dumping, in short, is when sugars go directly from your stomach pouch into the small intestine causing heart palpitations, nausea, abdominal pain, and diarrhea.

6. Stop eating/drinking when you begin to feel full. Do not "stuff" yourself. This may cause vomiting and your stomach pouch/esophagus may stretch.

7. It is essential that, within the first 6 weeks after surgery, you begin with a regular exercise program. Stay motivated; it will make a dramatic difference in your energy level and your weight loss.

8. Attend support group meetings and workshops. They will help you stay focused and motivated and help you deal with the challenges of weight loss. Plus, you might just make a few new friends.
Changes

As you lose weight, you may notice other changes in your body. You should experience increased energy levels, especially if you have continued a regular walking or other type of exercise program. Your energy level should increase and you should sleep better at night. Ongoing exercise will be important for calorie burning, muscle tone maintenance, and an overall sense of well-being.

You may notice excess skin folds and wrinkles where the greatest weight loss occurs. This is especially noticeable on the face, upper arms and abdomen. Reconstructive surgery to improve your appearance should not be considered until sometime after your weight has stabilized. We will be glad to recommend an experienced plastic surgeon.

You can anticipate resuming a more normal life soon after recovery. As your weight decreases, more physical activity will be possible. Traveling, eating in restaurants and other pastimes should be more enjoyable. There may be new career and social opportunities, and a more positive self-image.

Reconstructive/Plastic Surgery

Patients who lose more than 100 pounds also face another challenge - excess skin. You may notice excess skin folds and wrinkles where the greatest weight loss has occurred. This is especially noticeable on the face, upper arms and abdomen. In addition to being cosmetically concerning, massive skin folds in the arms, abdomen and legs can cause chaffing, and cutaneous bacterial and yeast infections. Reconstructive surgery is indicated for these patients.

Reconstructive surgery can help give patients more self-confidence and a better body image. Reconstructive surgery to improve your appearance should not be considered until sometime after your weight has stabilized. It is usually not recommended for 18 - 20 months post-op. We will be glad to recommend an experienced surgeon.

Emotional Issues

Bariatric surgery has both physical and psychological effects on you. Please do not take these changes lightly. All patients need to consider these changes before having bariatric surgery, as well as after. Some of the feelings that you may experience are depression, frustration, anxiety, anger, disappointment, helplessness, euphoria, excitement, and joy. This is a normal reaction to the changes that you need to experience with a changing body image. Remember that this surgery is not a fix for your everyday problems with your spouse, friends, or
family members, employment, or social life. This surgery will allow you to begin to
gain control over one aspect in your life: weight loss.

Although you have elected to have weight loss surgery to resolve your
obesity, weight loss also changes the life style you knew so well. Even with its
problems and tensions, obesity was comfortable, simply because it was known. Now
that life is gone. When the reality of the new situation confronts you, it is natural
to begin a longing for your old way of life.

This expresses itself in several stages. These stages include denial, anger,
bargaining, depression, and finally, acceptance. Different people go through these
stages differently. It is natural for some patients to experience denial before
they have surgery, because they focus on the positive. They seem to understand
the risks and complications, but often do not recall hearing about the emotional
and physical stress that follows. After surgery is performed, some patients try to
bargain for extra space in their stomach pouches. They overeat, experience the
painful consequences, and may become angry for getting into this situation.
This anger may also surface when other discomforts or complications develop
throughout the recovery period. These feelings are difficult to accept or express
openly, and depression may follow. Feelings of sadness and crying episodes can be
common occurrences. These emotional responses to surgery are completely
understandable. They cannot be eliminated, but must be experienced and worked
through. Adapting to the changes taking place in your body and in your relationship
to food can take many months. The final stage of acceptance will occur when you
feel at peace with the changes brought about by surgery.

In the past, one of the best methods for you to cope with life's stressors
may have been for you to eat. This method will no longer be useful, especially while
your new stomach pouch is at its smallest. One of the keys to success of this
surgery is to learn to replace those comforts with healthy activities.
Replacement methods for coping will need to be learned, but this will take time.
Try not to sabotage yourself. The experience of such rapid bodily change will
likely be accompanied by many emotional ups and downs, depending on your age and
sex.

There are many things that you can do to help yourself through the recovery
and adjustment period. One of the most important aspects is the recognition and
understanding of the experience of loss. Expect to have ups and downs as the
weeks go by. If you are feeling teary and depressed, have a good cry. Do not
suppress your emotions. They will surface again anyway. Use the journal in this
guide to get you started. Go for a walk.

Your adjustment and acceptance will also be eased by the realization that
bariatric surgery, with resultant weight loss, will not solve your personal or
relationship problems by itself. You cannot expect a perfect body or a perfect life
after the weight loss. In fact, many new problems will develop because of the many new opportunities. These will need to be recognized and will need your attention. Try to be as positive as possible. As new challenges pop up, recognize them and develop a problem solving approach.

Talk to your spouse, family doctor, friends, and other patients or call our staff. Adjust your expectations. Set realistic goals and stay occupied with work, hobbies and exercise. You will also feel more positive if you look your best. Pay attention to hygiene, hairstyle and clothes. Women may want to experiment with make-up. Take a walk, listen to music, meditate or pray. Do things you always wanted to do.

Counseling

 Occasionally, personal adjustment or relationship problems will continue after surgery. These should be addressed in professional counseling. Counseling may be needed during the phase of adjusting to the new physique and the many changes that follow the surgery for morbid obesity. We can help recommend counselors who are qualified and experienced in working with people who have had weight reduction surgery. Do not hesitate to request a recommendation. Major changes can cause “new” problems to emerge or “old” ones to intensify. Professional counseling can be a positive step toward a healthier adjustment.

Family and Friends

You can expect your family and friends to have different reactions to your surgical experience and to the weight loss that follows. Although you hope your loved ones will be supportive and helpful during your ups and downs, this may not always be the case. First of all, your partner or spouse has become adjusted to you and your obesity. This may result in a resistance to the change, taking form in disagreements, mood swings, or refusal to support your dietary or exercise regimen. Keep communication channels open, recognize signs of distress in your partner, and adjust to the changes in your body and behavior. These changes will require your partner to relate in new ways to you. These adjustments take time, effort and patience. If you are experiencing serious ongoing problems in your relationships, some short-term professional counseling may be helpful.

Friends and extended family members also must adjust. Many of them will be positive and genuinely excited and happy for you. They will stick with you through highs and lows, and relate to you as the lovable, unique person they have grown to appreciate. Others who have become secure in your obesity may have difficulty adjusting to the new body you are developing. If they are also
obese, they will be constantly reminded of their continuing problem as you lose weight. They may be quick to point out sagging skin, wrinkles and other disadvantages. They may envy your courage or physical health. Be open about your appreciation of them and their concerns for you. Recognize their ambivalence and talk with them about their own feelings. And finally, let people pull away if they need to for a while. There may be a need for some time to pass before they sort it out for themselves. Your main responsibility is to take care of yourself. Others are responsible for their own feelings and actions. Hopefully, most close family members and friends will all eventually adjust.

The Internet

We greatly encourage support, both before and especially after surgery. Group support and being connected to other patients is vital to a successful surgical result. We require that you attend Monthly support group meetings (a minimum of 3 per year). The internet is also a way to help fill the void between group meetings. We encourage using the internet.

We also want to stress the need to maintain a cautious, objective approach to what you read, especially when it does not agree with your own intuition. We urge you to contact the office to ask questions directly about the surgical process. We'll either have the answer or do our best to find it for you.

Support Group Meetings

Advanced Surgical Associates, P.A. considers Support Group meetings to be mandatory. We know we cannot realistically make you attend these meetings, but they are available monthly to offer you education, nutritional support and medical advice. Group meetings provide peer support, allow you to learn about the surgery first hand from others who have had gastric bypass or Lap Band, let you share your experiences and provide periodic guest speakers to expand your knowledge on obesity surgery related topics. They are great for problem solving. These support groups are a wonderful opportunity to make new friends and be with people who share what you are experiencing. It can be reassuring to hear another's viewpoint on common concerns and to get additional information from the group leader or guest speaker. *Research has shown that patients who attend support groups regularly are more successful with their weight loss and mental adjustment than people who do not, especially long term. You will find these meetings helpful in many ways. Family and friends are always welcome to attend.

Our support group is held every third Tuesday of the month from 6:30-8pm in the Conway Hospital Administration Auditorium of the Administration Building.
Other locations may become available, so always check the office/practice website www.advancedsurgicalassociates.com

The Weight Loss Fight with Yourself

Congratulate yourself! Really! After all, you have taken the first step towards weight loss and a healthier lifestyle by having weight loss surgery; a huge step, a scary step, a painful step. You merit applause for your courage.

Having tried and failed in the past is no reason for you to believe that this time, the same thing will happen. The Advanced Surgical Associates Team is here to help you. "Anytime". But you have to be really ready to change and help us to help you.

This being old news to you by now, weight loss surgery is merely a tool and it will not work unless you are willing to do your part and not give up. Obviously, you have shown your willingness to participate already by attending an Information Seminar(s) and having surgery. Now is the time to think about some common weight loss pitfalls, so that you are prepared to make the most out of your bariatric surgery.

1. Don't make excuses. Nobody said that this was going to be easy. You will need to adhere to the strict dietary guidelines and exercise regimen in order to reach your goal weight. Not exercising or eating the wrong foods can lead to serious complications. Ask yourself why you are not exercising. Too busy? You need to come first and this is your last chance at reclaiming your health.

2. Think about what makes you want to overeat. Is it a certain time of the day; stress? Set your exercise plan or support system accordingly. If you eat at night when you are stressed, come to or go to a Support Group meeting or call our staff to talk to one of our nurses. If you eat in the afternoon when you are bored because you are watching soaps, go to the gym and watch the soaps while you are using the treadmill.

3. Be good to yourself. You are not a failure. However, as long as you keep calling yourself negative names such as loser, failure and quitter, you will believe it and act accordingly. Look at the positives and see what your strength is. After all, if you don't think you are wonderful, who will?

Stress Eliminators
• Prayer. God has given us no greater gift than the gift of prayer, to reach out and discuss anything with our almighty creator and ask him for his blessings on the things we wish to overcome daily.

• Love yourself. Add yourself to your list of “loved ones”. Make taking care of your physical, emotional, social and physical needs a priority.

• Listen to music. Let the rhythms drain away your stress.

• Breathe deeply. Inhale through your nose and exhale through your mouth slowly and imagine that you are inhaling calmness and exhaling stress.

• Laugh often. Have a giggle. Watch a comedy on video, listen to a tape or read the Sunday funnies. Laughter is the best medicine.

• Speak up for yourself. People who feel they have control over some aspects are less subject to stress. If you don’t like the way something is going, say so politely. In order for change to occur, you must take action.

• Let go. Learn the difference between what you can control and what you cannot. Stop worrying about things that are beyond your control. Use that energy to make changes you can. Focus on your own happiness.

• Manage your time. To avoid feeling rushed, plan out how much time you will need to accomplish tasks, to get ready to go places, to travel, to eat, etc...

• Get a hug. Humans are social beings and we require some safe, nurturing physical contact.

• Practice meditation. Spend at least 15 minutes a day relaxing your mind. Sit comfortably, breathe calmly, perhaps listen to some soft music, and just clear your mind.

• Treat yourself with compassion. Give yourself permission to make mistakes, to play without feeling guilty, to change your mind, and to set aside time only for you.

Section XI: Exercise

First steps

Your activity will be restricted to no strenuous activity for 2 to 6 weeks after surgery. You may walk and perform light household duties as tolerated upon your return home. Usually, frequent walks of short duration are tolerated better than one or two long walks that go to or past the point of fatigue. Increase the distance that you walk gradually. By your six week office visit you should be walking regularly, at least two or more miles a day. Water exercises are recommended for those who have problems with weight bearing joints. You can start water activities after your incisions are
Starting an exercise program

You are already aware that Bariatric surgery is merely a tool to weight loss. Of course, this means that in order to receive the maximum benefits from your surgery, you must incorporate exercise into your daily routine. Patients report exercise as a key factor in their ability to maintain their weight. If you want to feel good, and maintain and build muscle mass, you must exercise. Exercise helps you lose the weight, helps keep it down and gives you a sense of control. Exercise also helps to keep your bone tissue dense and strong, increases strength and balance, boosts energy and improves quality of life. Research has shown that the patients who exercised 3 or more times per week for a minimum of 30 minutes lost an additional 15% of their excess weight in 6 months than their cohorts who did not exercise as strenuously. The mistake that many patients make is that they do not exercise until they feel “all recovered” or try to start exercising when they realize they are not on course to reach their goal weight. Patients who work hard on exercise early after surgery find it very rewarding. As the weight falls off, the capacity for exercise improves dramatically, with significant improvements on a week-by-week basis. Do not cheat your body of this important aspect of weight loss. Make a long-term commitment to exercising!

It is difficult to stay motivated. It is not easy to find an exercise that you may like. Try to look into forms of exercise that you may have never tried before. Explore yoga, dancing, roller-skating, tai-chi, etc... Exercise does not mean that you have to be in a gym for hours. If it has been some time since you have exercised regularly, then it is best to start slowly. Begin with as little as 5 minutes a day and add 5 more minutes a week until you can stay active for 45 minutes per day. We recommend that you make exercise part of your daily routine. Just being an active person is not enough exercise to be able to loose the weight and keep it off.

There are three forms of exercise: cardiovascular, strength-building, and flexibility. Cardiovascular exercise is also known as aerobic exercise. For example, walking, jogging, swimming, and cycling are aerobic activities. These types of exercises drive your body to use oxygen more efficiently and deliver maximum benefits to your heart, lungs, and circulatory system. A simple definition of cardiovascular exercise is any exercise that raises your heart rate to a level where you can still talk, but you start to sweat a little. At least 20 minutes of cardiovascular exercise 3 or 4 days a week should be enough to maintain a good
fitness level. Any movement is good, even house or yard work. But if your goal is
to lose weight, you will need to do some form of cardiovascular exercise for 5 or
more days a week for 30 to 45 minutes or longer.

**Strength-building exercises** are known as *anaerobic exercise*. Anaerobic
exercise does not have cardiovascular benefits, but it makes your muscles and
bones stronger. Strength-building exercises require short, intense effort. People
who lift weight or use any type of equipment that requires weights are doing
strength-building exercise. Strength-building exercise makes your muscles and
bones stronger and increases your metabolism. Strength exercises also make your
muscles larger. Your muscles use calories for energy even when your body is at
rest. So, by increasing your muscle mass, you are burning more calories all of the
time. If you strength train regularly, you will find that your body looks leaner and
you will lose fat. Strength building exercises should be performed 2 to 3 times a
week for best results. Always warm up your muscles for 5 to 10 minutes before
you begin lifting any type of weight or before performing any resistance exercises.

**Flexibility exercises**, which are also anaerobic, tone your muscles through
stretching and can prevent muscle and joint problems later in life. A well balanced
exercise program should include some type of each exercise from each category.

**Loss of Muscle Mass**

When the body is in a state of panic, and trying to combat starvation, it hoards
its precious fat until any other usable fuel has been burned. Practically, the body
will prefer to burn muscle mass, before consuming its precious fat. If muscle is
not regularly used for exercise *every day*, it will be consumed to meet the energy
needs.

Loss of muscle mass is preventable. It is very important during active weight
loss to exercise vigorously every day. We recommend at least 20 minutes a day of
aerobic exercise, and to devote attention to the upper body strength as well.
Adequate protein intake is also strongly encouraged. Many persons find, after a
few weeks or months of regular exercise, that they actually begin to enjoy it, and
start to work out even more! Fairly vigorous exercise for more than half an hour
every day can greatly enhance fat burning, and hasten weight loss. Our research
has shown that patients who exercised at least three times per week for at least
half and hour lost 14% more of the total excess weight after surgery. It also
builds a healthy and beautiful body.

Seriously obese persons are very strong and powerful - after all, just
getting out of bed, you lift more than some people pick up all day long! It would be
upsetting to have this muscle power lost, especially when you need it to enjoy life. 
Save your muscles, keep your energy; eat your protein and EXERCISE!

**Workout mistakes:**

1. **Not Stretching.** Stretch before and after aerobic activity. Prior to stretching, warm up cold muscles to avoid injury. Flexible muscles are far less likely to be pulled than tight ones.

2. **Skipping warm-up.** Like stretching, muscles need time to adjust to the demands placed on them. Rather than hitting the treadmill running, take a few minutes to walk, build up stamina and then hit your stride.

3. **Skipping cool down.** Due to time constraints, many people head straight to the shower after the last repetition. Instead, take a few minutes to lower your heart rate and stretch your muscles again to improve flexibility and help prepare the body for your next workout.

4. **Pretending you are Arnold.** Yes, we know, you suddenly have this amazing amount of energy and think you can do anything. That’s Great, but take it slowly in the beginning. Lifting too much weight is the best way to injure yourself. Increasing the weight slowly and steadily over time is a far more effective and safer way to increase muscle strength.

5. **Being a Weekend Warrior.** This is a common mistake of the person who tries to fit a week’s worth of exercise into a Saturday or Sunday afternoon. For weight loss, it is more effective to sustain a moderate workout over several periods of time than to exercise intensely for only a few minutes.

6. **Acting like you are a camel.** Only camels can go for extended periods of time without water. To the rest of us it is a necessity. Drink plenty of it before, during and after your workout.

**How to stick with your program**

1. **Look at exercise like a prescription medication.** You do not have to like exercise, but you need to do it in order to stay healthy. You also have to do it in order to loose weight. No miracles here. If you have a condition that requires a medication every day, you are going to take this medicine every day. Your body needs exercise every day, so you have to give it what it needs.
2. **Do research.** Find out what types of classes your local gym is offering. Does your hospital offer water exercises classes for people with arthritis? Is there a gentle yoga class offered at the community center? You are going to have a greater likelihood to stick to an exercise that is tailored to your needs and that you enjoy. Explore new types of exercise.

3. **Change your routine.** So you love to walk, but you are bored with it. Sometimes, just changing the direction of your route can make all the difference. Find new places to go walking, change the time of day, or offer to walk your neighbor's dog.

4. **Find a buddy.** Let's face it, without a coach; most athletes would not be where they are now. Why should you be any different? We all need someone to nudge us and make us go the extra mile, especially when it comes to exercise. Find a friend, a neighbor and personal trainer to meet you at the gym or in the park.

5. **Find your rhythm.** Listen to music, books on tape or meditation while you exercise. Fifteen (15) minutes on the bike can seem like an eternity without music, but with the right music to occupy your brain, it will not seem so long.

6. **Participate in group sports.** You don't need to join the soccer team, but participating in a group activity increases the chances that you will stick to it. Choose water exercise, yoga, or stretching classes. Choose places and times where there are other people who are actively involved in exercise.

7. **Know what makes you give up the program.** If going on vacation throws you off your fitness plan, try incorporating exercise into your vacation. If boredom makes you give up, stay interested by changing types of exercise and times.

8. **Make a schedule.** If you don't put exercise into your daily schedule, most likely you will do everything but exercise. Plan in babysitters. Schedule specific activities on specific days, like walk 20 minutes on Mon, yoga class on Tues, etc...

9. **Use a workout log.** Write down the exercise you do and see how you have improved. Just like weight loss, sometimes one does not see the scale drop, but the inches seem to melt away. It is difficult to keep up with exercise when you do not see the results. Write down the number of repetitions, the weight used, the length of walk, the time, etc... Use the workout log in the appendix as a guide.

10. **Stay active between workouts.** Walk as much as possible between workouts. Park farther away. Get
off the bus a couple of stops early. Always keep a good pair of walking shoes in your car, should you have unexpected time to take a walk.

**Overcoming your excuses not to exercise**

1. **I don’t have time.** ⇒ Set a time and stick to it.
   ⇒ Watch less TV and turn off the computer.
   ⇒ Remember that exercise is a stimulant and leads to more productive use of time.

2. **Exercise is work.** ⇒ Work is work, and most people do it 40 hours a week.
   ⇒ In order to lose the weight and get the most out of your surgery, you only need 4 hours of exercise per week. That’s only 2.3% of your week. Think about it!

3. **I’m too tired.** ⇒ Exercise improves energy levels throughout the day.
   ⇒ Exercise improves the quality of your sleep.

4. **I might fail.** ⇒ Exercise is not a contest!
   ⇒ If you stick with the program, you will succeed no matter what.
   ⇒ Remember to start slowly and gradually increase your intensity and duration.

5. **I hate exercise.** ⇒ Everyone likes some exercise; you just have not found something you like yet - keep searching!
   ⇒ Try exercising with a friend
   ⇒ Listen to music or a book on tape. At least this way, your focus will not be the exercise.

**The Walking Workout**

Recent research indicates that walking is one of the best ways to be in charge of your life. Besides the well documented health benefits, the beauty of walking is you can do it at your own pace. Walking is the first type of exercise that we recommend both before and after surgery. If you are new to exercise and you are also recovering from surgery, you can walk ten to 20 minutes four or five days a week. As you get stronger, you can increase the distance and the speed to your comfort level.
As with any type of exercise, it is still important to warm up, then stretch. Start by walking for just 5 minutes and then do a few gentle stretches. Your muscles will stretch better if you walked a little first. Ask a fitness professional which stretches are best for you they can offer practical tips for getting the maximum aerobic, strength, postural and conditioning out of your walking program.

Consistency is probably the most important part of your walking routine. The more time you can devote to walking each day, the healthier you’ll be. Remember that short walks are better than none at all. Health, like life, is a journey. What you need to do is take the first step.

Water Fitness/aerobics

Many of our patients like participating in water programs. You can start water activities about three weeks after surgery. Water programs are great, since they are non-weight bearing and therefore are gentle to painful joints. Water fitness can improve strength, flexibility, cardiovascular health, decrease body fat, facilitate rehabilitation after surgery, improve functional living and even enhance other sports skills. Water classes or water aerobics today offer more versatility than ever, but how do you find the right class for your goal, interests, needs and skills? Find the facility first. Look at the Conway Medical Center Wellness and Fitness Center, your local YMCA, community center, and/or health club. You want to look for a well maintained pool, adequate locker rooms and life guard on duty. You can obtain a prescription from your Primary Care Physician to begin any of the exercise programs suggested. Whichever class you may decide to try, start with the lowest level and use the smallest water weight at first. Many people make the assumption that because the exercise is in the water, they cannot injure themselves.

Most importantly, you should feel comfortable in the environment. If the water is too cold, find the staff to be lacking empathy or do not feel at ease in your class, then this is not the right class for you. Water exercise, like any other type of exercise, should be done in a relaxing environment. If this is not the case, it is a sign to look for something else.

How to Choose a Personal Trainer

There is a reason that movie stars and athletes use personal trainers: working with a personal trainer is one of the fastest, easiest, most successful ways to
improve your health. In fact, personal training has proved so effective that it has spread well beyond the world of the rich and famous. Today, personal trainers are used by people of all fitness, social and economic levels to help make lifestyle changes that they could not achieve by themselves. Consider the following things a personal trainer can do:

**Improve your overall fitness.** A trainer will monitor and fine tune your program as you go, helping you work your way off plateaus.

**Reach a healthy weight.** Remember that the surgery is only one of the tools to weight loss. Body fat reduction, weight reduction and management, body shaping and toning can all be achieved with the aid of a qualified personal trainer who can help you set realistic goals and determine strategies, all while providing the encouragement you need.

**Learn to stick to it.** Sticking with well-intentioned plans is one of the biggest challenges that exercisers face. A qualified personal trainer can provide motivation for developing a plan that places a high priority on health and activity. A trainer can help you brainstorm a workout plan to overcome your biggest obstacles to exercise.

**Focus on your unique health concerns.** Most personal trainers are familiar with the special needs of morbid obesity, arthritis and diabetes. Your trainer can work with your physician, physical therapist and with Bariatric Program Services to plan a safe, efficient program that will enable you to reach your health goals.

**Find the right way to work out.** You will learn the correct way to use equipment with the appropriate form and technique for cardiovascular work and free-weight training.

**Stop wasting time.** Get maximum results in minimum time with a program that is specifically designed for you. Workouts will help you use your strengths and improve on weak points in a matter that is efficient and effective.

**Learn new skills.** Want to learn to skate, golf like a pro or get ready for an adventure vacation? An individualized program can improve your overall condition and develop the specific skills you need.

**Enhance your mind, body and spirit.** A personal trainer can act as a door to personal growth experiences. Conway Medical Center has many personal trainers to provide mind-body activities, such as Tai Chi sessions.

**Benefit from the buddy system.** What could be better than making a commitment to regularly meet with someone who will provide you with individualized attention?

Make sure that your trainer has a college degree in the field of fitness. Ask if the trainer belongs to professional fitness and exercise associations and
regularly attends workshops or conventions. You can find a personal trainer through Conway Wellness and Fitness Center, your local health club or Community Center.

**Section XII:**

**Our New Procedure Offering for Post-op Gastric Bypass weight regain**

**What is the ROSE PROCEDURE?**

New surgical tools now allow specialty trained bariatric surgeons like Dr. Balder to reduce the size of the pouch and stoma through the patient’s mouth without making external cuts into the body. We may refer to this as the acronym "ROSE" procedure, which stands for "Restorative Obesity Surgery, Endoscopic".

Before the ROSE incision-less procedure, patients who regained weight after gastric bypass generally had few treatment options. Scarring and adhesions related to the initial bypass procedure make open or laparoscopic revision surgery very challenging. Revision surgery procedure time is typically longer than the original bypass procedure and patients can be up to three times more likely to develop a complications following revision surgery. Therefore, most patients who regain weight after gastric bypass opt not to undergo open or laparoscopic surgical revision after weighing the risks and benefits.

**Why would I gain weight after gastric bypass?**

A number of studies suggest that patients regain weight due to the gradual enlargement of the surgically altered small stomach pouch and stoma, (connection between the stomach and small intestine). When the Roux-en-Y procedure is performed, the stomach and stoma are made very small, which slows the passage of food and creates a feeling of fullness after just a small volume of food is eaten. It is believed that when the stomach pouch and stoma gradually enlarge, the feeling of fullness is no longer present, patients can eat larger meals, and weight regain occurs.

**How do I find out if I’m eligible for this new incision-less, restorative ROSE procedure?**

Patients who had a Roux-en-Y gastric bypass more than 2 years ago, lost over 50% of their excess weight and have now regained 15% or more of this weight are probably the most ideal candidates for this procedure. Additional patients who may be candidates for the R.O.S.E. procedure include those patients with gastro-
gastric fistulas (associated with weight regain), poor weight loss following a primary procedure (especially if following program dietary and exercise guidelines), and others as well.

After an initial office visit with Dr Balder & review of your prior operative note and weight loss history patients will typically undergo a full medical history and physical examination followed by nutritional and dietary counseling (done in our office for patient convenience), and probably and upper endoscopy procedure to determine if you are a good candidate. (See last item below on how to "get started"!)

**What does the ROSE procedure entail?**
The ROSE procedure is performed using a small flexible endoscope and a new EndoSurgical Operating System (EOS). The scope and the EOS instruments are inserted through the mouth into the stomach pouch the same way as a standard endoscope. Tissue anchors are used to create multiple, circumferential tissue folds around the stoma to reduce the diameter, typically to about 10mm. The surgeon will then use the same technique to place anchors in the stomach pouch to reduce its volume capacity. After the procedure the patient will enter Advanced Surgical Associates standard bariatric surgery follow-up program of nutritional counseling and exercise, similar (hopefully) to the one prescribed after their original or previous gastric bypass surgery.

**What instruments are used?**
The ROSE procedure is performed with a new EndoSurgical Operating Platform (E.O.P.) and a small flexible endoscope for visualization. The EOP consists of a long narrow access platform called the TransPort™ and specialized surgical tools (that grab tissue, hold it in place and insert anchors and sutures), all of which are cleared by the U.S. Food and Drug Administration (FDA). Dr Balder will easily advance the TransPort™ into the GI tract in its flexible state, guided by the camera and light in the endoscope that's inserted into one of its four working channels. With a squeeze of the handle, the TransPort™ locks into place, conforming to the patient's unique anatomy. Once locked in place, the surgeon can advance the different surgical tools through its remaining three channels and then steer the end of the device freely to visualize a site and operate with efficiency and precision. The TransPort™ allows the surgeon use both hands to manipulate and view tissue.
Where will the procedure be performed?
The ROSE procedure may be performed in a Hospital Operating Room, an Out-patient Surgery Center or an Endoscopy Suite. Generally at this point, to insure optimization of patient care and keep costs as low as possible for our patients' benefit we plan to do these procedures at the Rivertown Out-Patient Surgery Center.

How long will I need to stay in the surgery center or hospital setting?
Typically, patients would be discharged home a few hours after the planned procedure. If a hospital stay is necessary, it would be typically planned as an "observation" setting or less than 23 hours (if severe associated illness such as underlying heart, lung, kidney or other disease is present).

What are the benefits of an incision-less procedure?
By eliminating skin incisions, this new procedure may provide important advantages to patients, including, reduced risk of infection and associated complications, less post-operative pain, faster recovery time, and no abdominal scars. Revision open Gastric surgery - especially revisional Bariatric surgery is fraught with high rates of complications, especially infections and bleeding problems. Avoiding this extensive scarred plane of tissues is of fantastic benefit if possible thru a "natural orifice technique" such as the ROSE procedure!

What type of side effects can I expect?
It is anticipated that patients will feel little or no discomfort from the procedure. To date, the only noted side effects have been short-term sore throat, swollen tongue and lip pain from the insertion of the instruments into the mouth.

Is it safe?
As with any surgery there are potential risks involved (As I tell my patients, "I know of no operative procedure done today that has zero risk"). This less invasive approach should dramatically reduce the likelihood of many of the complications associated with the open or laparoscopic revision surgery.

What is the success rate?
It is too soon to estimate the likely procedure success rate. The initial registry data seem to favor a good and steady weight loss with the R.O.S.E. procedure (20% EWL @ 3 months). However, to date, the procedure has been well tolerated and the first patients have experienced weight loss within the first 4 weeks and a reduction in food volume capacity. Most importantly, most of the R.O.S.E. patients
were rapidly re-gaining weight at the time of the procedure - which was stopped and reversed!

**What is the recovery process?**

Typically this is done in the out-patient setting and our patients should plan to return to normal activity within a few days of their procedure. You will be given any specific restrictions and specific discharge instructions after your procedure. In addition, my patients will be asked to complete an educational module (EMMI) with regard to post-operative gastric bypass needs (which may have changed over the years from what they were previously told), and follow our post-bariatric surgery diet and exercise plan - the same as prescribed by our office following the initial roux-en-y gastric bypass surgery. In addition, follow-up appointments with your Dr. Balder and regular visits with bariatric support staff (including support groups) will be required.

**Will it be covered by insurance?**

As with gastric bypass surgery or Lap Band surgery, coverage will vary depending upon the insurance provider. Our insurance specialist, Donna Tomlinson in our office can and will discuss your plan with you at your request. In the event insurance will not cover the procedure, financing options are available. We typically utilize [www.CareCredit.com](http://www.CareCredit.com) but have other sites available as necessary. Advanced Surgical Associates has this information on possible financing programs as well as potential tax advantages for any health expenses you may incur.

**What will the procedure cost?**

The cost for the procedure will vary depending upon where the procedure is performed, how long you stay in the facility and other factors. For a limited time, we are offering an introductory rate for the ROSE Procedure of $9900 at our affiliated out-patient Rivertown Surgery Center (no hidden costs!) This includes all charges for the day of the procedure including the surgeons' fee, anesthesia fees, and the cost of the out patient surgery procedure or facility charges). This fee does not cover evaluation to determine if you are a candidate. You will need to make an appointment to determine if you are a candidate which will be discussed during your consultation visit with Dr. Balder.

**Is incisionless surgery just for gastric bypass restorations?**

This procedure is one of the first of many potential applications for Incision-less Surgery. Incision-less Surgery is considered the next wave in minimally invasive procedures and, in addition to obesity, it has generated interest among physicians
in areas such as GERD, GI cancer and NOTES (Natural Orifice Translumenal Endoscopic Surgery).

Have you regained some of the weight you initially lost after Gastric Bypass Surgery?

Your stomach pouch or stoma (the connection between the pouch and small intestine) may have stretched out in the years since your original surgery, reducing the feeling of fullness after you eat (because of bad habits, many patients can now eat as they did before their GBP surgery). We now offer the R.O.S.E. - Restorative Obesity Surgery Endoscopic, procedure, an incision-less surgical procedure that restores the size of the pouch and stoma close to the original post-surgery proportions. Using new surgical tools, surgeons create and suture folds into the pouch to reduce its volume and at the stoma to reduce its diameter. Dr Balder performs the procedure entirely through the mouth without making any external incisions into the body. Due to the lack of external incisions, the R.O.S.E. - Restorative Obesity Surgery Endoscopic procedure is expected to provide important advantages, including, less risk than traditional open or laparoscopic surgery, minimal postoperative pain, fast recovery time and no scarring. Keeping your weight down after gastric bypass is vital to improve your health and reduce the co-morbidities associated with obesity such as Type II diabetes, heart disease, joint disease and respiratory conditions. If you have started to regain weight since your initial surgery, please contact us.

Who is eligible for the new incision-less, R.O.S.E. - Restorative Obesity Surgery Endoscopic procedure?

Patients who were originally successful losing weight following Gastric Bypass and now find themselves regaining weight may be ideal candidates for this procedure. After an initial screening, you will undergo a series of evaluations including nutritional and dietary counseling, a full medical exam and endoscopy to determine if you are a good candidate.

How long will I need to stay in the hospital?

The length of your stay will be determined by your surgeon. Currently the procedure is done at the out-patient Rivertown Surgical Center. If done in an out-patient facility you will go home the same day you have the procedure. If your insurance requires that you have it done in a hospital setting, you may be discharged the same day if the procedure was done early in the morning, or you
might have to stay overnight. Your surgeon will make the determination following your procedure.

**What are the benefits of an incisionless procedure?**
By eliminating skin incisions, this new procedure may provide important advantages to patients, including reduced risk of infection and associated complications, less post-operative pain, faster recovery time, and no abdominal scars. Most optimally, it will allow gastric bypass patients who need help with an additional tool the opportunity to get back on track with weight loss and possibly reduction in their associated co-morbidities.

Dr Balder recently commented in a CBS news interview (with WBTW) here in Myrtle Beach "It will essentially, give a number of patients who have possibly failed their gastric bypass experience a second chance on their weight loss and just as importantly with their health!"

**What type of side effects can I expect?**
It is anticipated that patients will feel little or no discomfort from the procedure. The most common reported side effect has been short-term sore throat.

**Is it safe?**
As with any surgery there is risk involved. The R.O.S.E. - Restorative Obesity Surgery Endoscopic procedure is new and long-term data are not yet available. This less invasive approach should reduce the likelihood of many of the complications associated with the other open or laparoscopic revision procedures. The only significant problem reported in the initial registry was "sore throat"; which generally lasted less than a week.

**What is the success rate?**
As with any weight loss procedure, results vary with each patient. The R.O.S.E. - Restorative Obesity Surgery Endoscopic procedure has been well tolerated and most patients experience weight loss as they eat less - with the return of the early feeling of "fullness" due to the restriction of the new, smaller pouch. The R.O.S.E. procedure is new and long term data are not yet available. Initial 12 month data from the registry show no significant complications during the post operative period and excellent weight loss.

**What is the next step if interested in the ROSE procedure?**
Interested patients should obtain a copy of their prior gastric bypass operative note and schedule an appointment for a detailed evaluation with Dr Balder. If there are problems obtaining an old operative note, please feel free to come by our
office and sign a waiver to send to your prior surgeon or hospital - we can assist in this process for your total care! In order for Dr Balder to optimally treat and evaluate you, it is often very, very helpful to have your pre-operative & post-operative information from you previous Bariatric Surgeons office as well (and any post procedure notes such as upper endoscopy or barium upper GI study).

Because of healthcare privacy laws we will require your personal hand-written signature in our office if you would like us to assist you with this. For your convenience this is optimally done several days to a week prior to your planned office appointment with Dr Balder. Offices and hospitals often take much more time to "release" these records than you would anticipate!

Thank you for choosing Advanced Surgical Associates, PA and Conway Medical Center or Rivertown Surgical Center. We’re here to support you in your quest for good health and your weight loss journey. Don’t hesitate to contact us for questions or assistance. We are here for your life long care after surgery.

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