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MISSION STATEMENT

NORTHWELL LENOX HILL HOSPITAL BARIATRIC PROGRAM

provides the framework that will enable patients to succeed at utilizing surgery to improve their health status.

Our emphasis is on total health management, not just weight loss.

Dedicated to the treatment of Morbid Obesity, Lenox Hill Hospital (LHH) Bariatric Surgery Program provides innovative, comprehensive, and compassionate care for patients seeking bariatric surgery. Our expert surgeons represent a combination of training, expertise and recognition unique and unparalleled in New York City and throughout the country. The Lenox Hill Program provides absolute high quality bariatric surgical care training surgeons throughout the world. These are easy words that many programs boast. For us, we can substantiate. The Lenox Hill program has been featured on multiple national telecasts. Celebrities and international patients have selected to travel great distances to obtain their care at LHH. The first major national story on the use of bariatric surgery for Diabetes that appeared on 60 Minutes featured Lenox Hill Hospital. Historically, our program was one of the original places to offer Laparoscopic Bariatric Surgery. Today, it is still a place where procedures are developed. Furthermore, many of the most complex cases are referred to our surgeons. Northwell Health became the parent entity of Lenox Hill Hospital in 2009. Northwell has become New York States largest private employer and is committed to providing the highest quality treatment to all individuals.

Our entire Weight Loss Surgery Support Team is committed to the highest level of medical care and surgical expertise. A well-educated, well-informed patient is more often the successful patient. We continually strive toward our mission of providing education and information for our patients. Our patient's success is our success. Questions, comments, suggestions, and your participation are encouraged as you travel the road to a healthier, happier and more active life.

DISCLAIMER

This document contains tools and general educational information and is not presented or intended as medical advice. Individuals considering weight loss surgery and patients who have undergone such surgery should always consult with their own physician or surgeon for medical, nutritional, exercise and lifestyle modifications tailored to their specific health profile and needs. Northwell LHH Program is not responsible for any misunderstanding or misperception of the material in this Handbook, nor its improper application or use.

GENERAL INFORMATION

WELCOME

Congratulations on taking this important step towards better health and weight loss.

We have put together this handbook to help you understand and prepare for weight loss surgery and to guide you through your rehabilitation. We urge you to read it thoroughly and note any questions and concerns you have along the way. The information contained in this Handbook is not meant to replace any information or treatment you receive from your doctors and other health care providers. It is meant only as a supplement.

In the subsequent pages you will find detailed information on the types of weight loss surgery procedures available, as well as information key to your lifestyle change. You will read about how to prepare for surgery, what takes place during the operation, and what to expect while you recuperate, both in the hospital and at home. You will also find information that will be useful to you during your lifetime commitment to wellness.

At the LHH Bariatric Surgery Program we have developed a comprehensive course of treatment, however YOU play the most critical role in ensuring your successful recovery and most importantly, better health and weight loss. By educating and involving yourself in each step of the program, you will be better prepared to achieve these goals.

We have a support team ready and waiting to help you through the process. This team includes doctors, surgeons, nurses, physician assistants, a dietitian, behavioral health support and other health care professionals skilled at treating weight loss surgery patients. Our panel specializes in the challenges and stresses you may face, and they are eager to answer your questions and help you wherever possible. Do not be embarrassed to ask questions. Your experience will go more smoothly if you are prepared and know what to expect.

We encourage and ask you to share this Patient Handbook with your family. It will answer many of their questions and may prompt you to think of more questions to ask our support team. The team at Northwell/LHH is here to support your success before, during and after weight loss surgery. Please let us know how we can help you every step of the way.

PROGRAM DESCRIPTION

Stop blaming yourself and realize that many of the things that you have been taught about obesity have been disproven by recent research.

Morbid Obesity is an energy storage disease and not caused by gluttony or lack of willpower. It is caused by a genetic predisposition that is activated by consumption of foods that are vastly different than what our ancestors consumed. An important issue to comprehend is the limitations of weight loss treatments. All current medical interventions are tools, which promote a new equilibrium that allow for weight loss. With weight loss there is an improvement in both medical and emotional health. ***Surgery, is not a substitute for a healthy lifestyle.*** It is the goal of our program to educate and inform our patients how to utilize their surgical procedure to lead a more active lifestyle and make better food choices. Afterall, it is true that you are what you eat, and surgery will not make poor choices healthier.

Some of the features of Northwell LHH Bariatric Surgery Program that make us unique include:

- A dedicated, fully trained staff in bariatric medicine and surgical services
- Over 20 years combined experience in bariatric surgery with extensive experience in laparoscopic/robotic bypass, sleeve gastrectomy, duodenal switch, banding, revisional and endoscopic alternatives
- The most original and informative support groups
- Access to the entire Northwell Physicians Partners Network
- No program fee for nutrition and support group
- Psychological evaluation and support
- Pre-operative education
- Full-service surgical care
- Dignified, supportive hospital care
- Nutritional counseling and follow-up
- Exercise and fitness guidance programs
- Behavioral health tools and guidelines
- Continuing patient education
- A long-term follow-up program

Please review our information carefully, look at our web site and video gallery, attend a support group, talk to your friends and families, but above all compare. There are many options currently available to the weight loss surgery patient. It is our desire to be sure our patients are well informed in making this life changing choice.

The American College of Surgeons (ACS) and the American Society of Metabolic and Bariatric Surgery (ASMBS) combined their respective national bariatric surgery accreditation programs into a single unified program to achieve one national accreditation standard for bariatric surgery centers, the Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program (MBSAQIP). MBSAQIP works to advance safe, high quality care for bariatric patients through the accreditation of bariatric surgical centers and Lenox Hill Hospital is proud to be designated as a Center of Excellence. The Lenox Hill program has been in existence since 2000. It is an original Center of Excellence. We have been an investigational site for the Lap Band, Vagus Nerve Stimulation, Endoscopic Revision of Gastric Bypass, and most recently The SIPS national registry. Currently, we are national teaching center for SIPS/ Modified Duodenal Switch, Robotic Surgery and Surgical Revisions.

The main benefits of the Bariatric Surgery Centers of Excellence program include:

- Patient safety and advocacy.
- A platform for the continuous improvement of bariatric surgery through comparisons of patient selection, operative procedures, and care paths.
- A central database that will guide our decisions and respond to challenges by our colleagues, insurance carriers, and the public.
- An invaluable resource for research.

Approved Centers are expected to report their data using American College of Surgeons and American Society for Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program (MBSAQIP) designed to collect the information needed to improve patient outcomes. The data will guide surgeons in choosing the right operation for patients, tracking complications and improvement or resolution of co-morbidities in an effort to promote improved patient care and results. We will report the outcomes of our surgeries as required byMBSAQIP. *Data transmission and storage in the database and servers is fully compliant with HIPAA and other patient privacy requirements.*

MEET THE SURGEONS

MITCHELL S. ROSLIN, MD, FACS

Director Bariatric and Metabolic Surgery Lenox Hill Hospital, New York, NY and Northern Westchester Hospital Center, Mt. Kisco, NY

Mitchell S. Roslin is well known throughout the world for his work as a bariatric surgeon and thought provoking research. Recently, he has been a visiting scholar and professor, operating and speaking in Spain, Italy, Turkey, Israel, United Arab Emirates, Saudi Arabia, Bahrain and Kuwait. He is invited to lecture throughout the world and has written multiple articles of note in the medical literature.

Many consider Dr. Roslin to be the author of a new school of thought about bariatric surgery. His research has focused on how different operations handle sugar, and he has been the leading voice for a transition in bariatric procedures. He has advocated preserving the pyloric valve and has lectured about sleeve gastrectomy and duodenal switch globally. He is responsible for the next big bariatric procedure, named SIPS, a modified duodenal switch. He developed the concepts and provided the most important research in the area. His opinion is sought by many sources, and he has appeared on national television countless times.

A native New Yorker, Dr. Roslin graduated magna cum laude from the University of Pennsylvania and earned his MD degree from New York University in 1987. He completed his internship in surgery at the UCSD Medical Center in San Diego and his residency/chief residency in surgery at the Maimonides Medical Center in Brooklyn, New York.

After his residency, Dr. Roslin began his surgical career on the teaching faculty of the Maimonides Medical Center. There, he developed one of the largest clinical treatment programs for morbid obesity in the United States. In 2000 he was named Chief of Obesity Surgery at Lenox Hill Hospital and has developed an internationally known program. He has been voted one of the outstanding doctors in New York, by both Castle and Connolly and New York Magazine. He recently has been selected as one of the best minimally invasive surgeons in New York. He is the founding president of the NYS-ASMBS and co chair of the access committee of ASMBS.

Dr. Roslin has a strong interest in research and improving treatment for obesity. He holds multiple patents and is actively involved in several research projects. Despite being asked to appear throughout the world, and operate in numerous countries, he has an extremely active practice, performing approximately 400 major cases annually. He has truly pioneered new procedures and ideas. A major aspect of his practice is complex revisions. He sees patients and performs surgery in New York City and in Westchester.

MEET THE SURGEONS

JULIO TEIXEIRA, MD, FACS

Chief of Minimally Invasive Surgery

Dr. Julio Teixeira, M.D., is an internationally recognized teacher and innovator in surgery. His career is distinguished by major contributions to the evolution of laparoscopic and bariatric surgery. As a teacher he is responsible for the education of surgeons throughout the United States and the world in using safe practice of Minimally Invasive Bariatric Surgery (MIS). He has been invited to speak and train surgeons around the world. Dr. Teixeira graduated attended Boston University as an undergraduate, Temple University School of Medicine. He completed his residency in surgery, and a fellowship (MIS) at New York Medical College. After completing his fellowship he was invited to join the faculty at New York Medical College and was appointed Chief of Minimally Invasive Surgery at Westchester Medical Center. At this time, he was one of the first in New York and the world to perform laparoscopic gastric bypass and described original methods of performing surgery with improved safety measures. As a result of the successful pioneering program at Westchester Medical Center he was recruited to Montefiore Medical Center where he served as Director of Bariatric Surgery and Assistant Professor of Surgery at Albert Einstein College of Medicine.

At Montefiore Dr. Teixeira helped established The Montefiore Institute of Minimally Invasive Surgery, a leading center for training and education in laparoscopic bariatric surgery with a fellowship program. During this time Dr. Teixeira trained surgeons throughout the world on the safety of laparoscopic bariatric surgery in addition to leading the laparoscopic kidney harvest in the transplant program.

He was then recruited to St. Luke's Roosevelt Hospital Center as Chief of the Division of Minimally Invasive Surgery and appointed Associate Clinical Professor of Surgery at Columbia University where in collaboration with the Obesity Research Center, he developed important research on the mechanisms of diabetes remission with bariatric surgery.

Dr. Teixeira has been a leader in the field of surgery, published numerous studies, lectured nationally and internationally, and has been an innovator. Among his many contributions to the field of surgery are new laparoscopic techniques for gastric bypass. He was the first in the world to describe endoscopic stenting techniques which has single handedly revolutionized the management of the most severe complications of bariatric surgery, single port laparoscopy and endoscopic revision surgery. He has been elected numerous times as best doctor in NY and US on Castle Connolly, New York magazine and other surveys and speaks effectively Spanish, Portuguese and French. He is now Chief of Minimally Invasive surgery at Lenox Hill Hospital.

MEET THE SURGEONS

EDWARD YATCO, MD, FACS

Assistant Director

Dr. Edward Yatco is a board certified surgeon specializing in bariatric surgery. He is the Assistant Director of Bariatric Surgery at Northwell/Lenox Hill Hospital. He has performed laparoscopic obesity surgery since 2002.

Prior to his recruitment to Lenox Hill Hospital, Dr. Yatco was a principal bariatric surgeon at The Westchester Medical Center in Valhalla, New York and performed over 4000 laparoscopic bariatric procedures including laparoscopic Roux-en-Y gastric bypasses, laparoscopic insertions of adjustable gastric bands, duodenal switches, SIPS (modified duodenal switch), sleeve gastrectomies, and bariatric revisions. He served as an Assistant Professor of Surgery at The New York Medical College and was involved in the training of residents in general surgery and instructed surgical fellows on how to perform bariatric and minimally invasive surgery at The Institute of Minimally Invasive Surgery. He has published numerous articles and has spoken at national conferences on the subjects of laparoscopic surgery and obesity surgery.

Dr. Yatco graduated from Colgate University with a degree in molecular biology and has several publications in biomedical science from research performed at The Rockefeller University and The Albert Einstein College of Medicine. He received his medical degree with a Distinction in Research from The State University of New York at Stony Brook School of Medicine. After his general surgery residency at St Vincent's Catholic Medical Center in New York City, he completed a fellowship in minimally invasive and bariatric surgery at The Institute of Minimally Invasive Surgery at The Westchester Medical Center.

Dr. Yatco was named in the 2004–2005 edition of Strathmore's Who's Who and was listed as one of America's Top Surgeons by the Consumer's research Council of America (2010–2014). He is a fellow of the American College of Surgeons and a Fellow of the American Society of Metabolic and Bariatric Surgery. Dr. Yatco is a member of the Society of American Gastrointestinal Endoscopic Surgeons and the Society of Laparoscopic Surgery.

MEET THE SURGEONS

DR. FILIPPO FILICORI, MD

Bariatric Surgeon

Dr. Filippo Filicori is a Board Certified Minimally Invasive Surgeon who specializes in Robotic, Laparoscopic and Endoscopic treatment of Obesity and Disorders of the Upper Gastrointestinal tract. He graduated Medical School Summa cum Laude from the University of Bologna (Italy) before completing a year of post-doctoral research and a General Surgery residency at Weill Cornell Medical College and Memorial Sloan Kettering Cancer Center in New York, NY. He then obtained further fellowship training in Minimally Invasive Surgery at The Oregon Clinic in Portland, OR.

Dr. Filicori offers several treatment modalities for weight loss including Intragastric Baloon placement, Endoscopic Sleeve Gastroplasty, Robotic Sleeve Gastrectomy, Robotic Gastric Bypass and Robotic Duodenal Switch as well as Revisional Surgery in cases of persistent weight gain.

Dr. Filicori also specializes in the treatment of disorders of the Upper Gastrointestinal tract such as Reflux (GERD), Stomach Cancer, Achalasia, Esophageal Spastic Disorders and Gastroparesis for which a wide range of options are available (Robotic fundoplication, LINX device, TIF, POEM, Pyloroplasty and Gastric Stimulator).

His primary research interests are Robotic Bariatric Surgery including metabolic outcomes of Bypass and Sleeve Gastrectomy as well as minimally invasive outcomes for the treatment of reflux and gastroesophageal neoplastic and dysmotility disorders (Gastric Cancer, GERD, Achalasia, Barrett's esophagus, Nutcracker Esophagus, Gastric polyps, Gastroparesis). On these topics he has authored more than 20 publications on Peer reviewed International Journals, 30 presentations at international meetings and 2 book chapters.

Dr. Filicori is a member if the American College of Surgeons (ACS), the American Society for Metabolic and Bariatric Surgery (ASMBS), the Society of American Gastrointestinal and Endoscopic Surgeons (SAGES), the Society for Surgery of the Alimentary Tract (SSAT) and the European Association of Endoscopic Surgery (EAES).

GETTING EDUCATED

WHERE TO BEGIN

This section provides you with information on the surgical management of Morbid Obesity. Patients should only make a choice after attending an Educational Seminar and having a consultation with a surgeon. All patients are required to attend an Educational Seminar prior to consultation with one of our surgeons.

EDUCATIONAL SEMINAR

Choosing weight loss surgery is a major decision that requires your commitment. The Educational Seminar is the first step in this process and gives you an opportunity to find out if weight loss surgery is right for you. Topics covered include:

- Background Information on Obesity
- Causes of Obesity, Co-morbidities and Criteria for Surgery
- Surgical Treatment Options
- Potential Benefits
- Possible Risks and Complications
- Steps to Surgery and Lifelong Commitment
- Summary/Questions and Answers

The Educational Seminar provides you with an opportunity to hear from a bariatric surgeon and ensure you fully understand the lifestyle changes, potential complications, benefits, risks, and lifelong commitment involved.

EMMI

- After attending one of our Educational Seminars, we ask patients to complete the EMMI (Expectation Management and Medical Information) web-based education program and complete a written exam. EMMI is an interactive patient education series that helps manage the expectations of people who are considering surgery. EMMI will talk you through the entire surgical experience from pre-operative to post-operative, including risks and alternatives.
- All participants must review EMMI prior to the pre-op consultation. A personal access code for EMMI will be e-mailed to you when you make your consultation appointment. For an access number please call 1-888-WHY-WEIGHT.

MORBID OBESITY—SHOULD WE BE CONCERNED?

Obesity is defined by the presence of excess fat. Classically, we have been taught that obesity occurs when more calories are consumed than utilized. That implies that obesity is similar to accounting and debits and credits. The truth is that all calories are not created equally and that all people do not handle calories in a similar manner. What we mean when we say that all calories are not the same is that foods that promote the hormone insulin to be released are more likely to cause obesity. The foods that stimulate insulin production are sugars, starch (potato, pasta, rice, etc) or foods with a high glycemic load. Notice what we did not write – FAT! Fat does not make you fat. More recent experimental data has disproven even the fat/cholesterol theory for heart diseases. While cholesterol is still important, the majority is made in the body and not eaten. The most dangerous forms of low density lipid particles form not after fat is eaten, but carbs! Foods that make you produce a lot of insulin are converted into fat. Insulin also is a lock on your fat and prevents your fat cells from breaking down and losing weight. Do not be concerned, as our dieticians will teach you and help you select the right foods. Furthermore, you may have been told that there are more calories in fats than in protein or carbs. Therefore, fats are energy dense. But, what is not taken into account is how complex it is for the body to break down and digest fats compared to carbs. Carbs are easily absorbed and stimulate insulin. Insulin promotes fat storage and prevents fat breakdown.

Today it is estimated that 60% of adults are overweight and 37% are obese. . An estimated nine million of those are considered morbidly obese, raising the risk and probability of one or more obesity-related health conditions or diseases that can result in either physical limitations or death. Morbid Obesity has replaced cigarette smoking as the leading preventable cause of death in the U.S. and the Centers for Disease Control ranks obesity as the number one public health problem. Direct health care costs on obesity and related inactivity are over $147 billion annually. Seldom has a medical condition been more misunderstood or unfortunately, under treated. Additionally, besides medical issues, those with weight issues face discrimination, have difficulty concentrating, have higher rates of disability, and more often to miss days at work or require special allowances to perform their job, The Rand corporation states that severe obesity limits life time earnings by a greater percentage than alcohol or drug addiction.

Morbid Obesity is typically defined as being one hundred pounds or more over a person's ideal body weight, or as having a body mass index (BMI) of 40 or more.

BMI is calculated by taking your weight in kilograms divided by your height in meters squared [weight (kg) ÷ height (m^2)].

BMI can also be calculated as follows:

BMI = (WEIGHT IN LBS ÷ (HEIGHT IN INCHES X HEIGHT IN INCHES)) X 703

For example, a person who weighs 220 pounds and is 6 feet 3 inches tall has a BMI of 27.5: (220 ÷ (75 x 75)) x 703 = 27.5

WEIGHT (KG) / HEIGHT (M^2)	
Normal	19–25
Overweight	25–30
Obese (Class I)	30–40
Severe Obesity(Class II) Morbid Obesity Class 3	35–40 with co-morbidity or >40
Super Morbid Obesity	>50

BMI CHART

HEIGHT	WEIGHT																		
	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300
5'1"	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55	57	59
5'2"	22	24	26	27	29	31	33	35	37	38	40	42	44	46	48	49	51	53	55
5'4"	21	22	24	26	28	29	31	33	34	36	38	40	41	43	45	46	48	50	52
5'6"	19	21	23	24	26	27	29	31	32	34	36	37	39	40	42	44	45	47	49
5'8"	18	20	21	23	24	26	27	29	30	32	34	35	37	38	40	41	43	44	46
5'10"	17	19	20	22	23	24	26	27	29	30	32	33	35	36	37	39	40	42	43
6'0"	16	18	19	20	22	23	24	26	27	29	30	31	33	34	35	37	38	39	41
6'2"	15	17	18	19	21	22	23	24	26	27	28	30	31	32	33	35	36	37	39
6'4"	15	16	17	18	20	21	22	23	24	26	27	28	29	30	32	33	34	35	37

Morbid Obesity is a disease process that is often related to increased illness and death. Diseases or co-morbid conditions that may accompany obesity include:

- Diabetes
- Coronary Artery Disease
- Hypertension
- Degenerative Arthritis
- Sleep Disorders
- Elevated Cholesterol
- Reflux Disease
- Stress Incontinence
- Liver, (NALF) Renal and Gallbladder Disease
- Increased Risk for Cancer

Being severely overweight not only causes increased health risks, but social discrimination as well. Due to misconceptions held by patients, families, friends, and some doctors, treatments of clinically severe obesity have been misguided, poorly administered, and sometimes even harmful.

HUNGER PHYSIOLOGY, SET POINT AND THE SURGICAL DIFFERENCE.

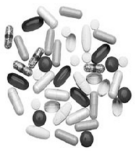
When we began performing bariatric surgery it was mainly to make the stomach smaller and believed that the impact was mechanical- make the stomach small and people will be forced to eat less. Now we have learned that there are many reasons that surgery works. There are hormonal and neurologic changes that are induced by surgery when following the proper diet. They cause hunger suppression and increased satiety. Additionally we have learned that obesity and diabetes are inflammatory diseases. When severely obese individuals attempt weight loss, the body resists. As a result, they frequently lose a nominal amount and then regain more. This is called the Set Point Theory. Surprisingly, surgery seems to change your set point. This allows a greater probability of lasting weight loss. Bariatric surgery does not just change the stomach. It changes the interaction between the gut and the brain, it changes the hormones released by the stomach and intestine, it improves insulin sensitivity, it changes how the liver handles fat and glucose with eating whole and all natural foods. This is why a pill that mimics will be so difficult to invent. Bariatric surgery changes so many things, far more than anyone expected when these procedures were first offered.

WHAT TREATMENTS ARE AVAILABLE?

Short-term programs include diet aids, prepackaged foods, medical treatment, behavioral modification and exercise. For people with clinically severe obesity, none of these have proven effective for permanent success. In 1992, a NIH study revealed that any medically supervised program or combination of therapies failed 96 to 98% of the time over a five-year period. Even worse, failure of short-term programs often results in a more significant weight gain. This happens because your body wants to return to its set point. An excellent example is the long term outcomes of successful weight losers on the Biggest Loser. Their bodies became more efficient and the majority had complete recidivism.

DIET: Drop out rates in dietary programs range as high as 80 percent. A maximum expected weight loss is often only 20 to 40 pounds, and frequently almost all weight is regained within five years, often exceeding what was lost. While some programs are better than others, these programs are considered by the NIH to be largely ineffective even in combination with psychotherapy, exercise, and behavioral modification. Unfortunately once someone has Class III obesity, they resist weight loss. Weight regain is very common. A registry kept by Brown University has analyzed those who have kept more than 50 pounds off for five years. In general to achieve, individuals have to be able to eat less than 1000 calories daily and be very active. This level of deprivation is very hard to maintain. The moral is that severe obesity may be easier to prevent than treat.

EXERCISE: is essential for wellness and to be healthy and is an important adjunct to our program. Exercise by itself is not a weight loss strategy and must always be combined with healthy eating.. Most with severe and morbid obesity respond to exercise with increased consumption, offsetting any benefit. To be healthy and maintain your weight loss, you must be active combining both cardiovascular activities and strength training to maintain muscle integrity.



DRUG THERAPY: Obesity drug therapy is going to be an important aspect of treatment in the future and is now being used in combination with other treatments. There are more medications available and new combinations. In general, weight loss of 5 to 15% of body weight is potentially obtainable. Medications have an evolving role in surgical patients with inadequate weight loss or weight regain.

PSYCHOTHERAPY: Behavior modification or psychotherapy may result in short term weight loss. Unfortunately, most of the lost weight tends to be regained within five years. This approach has been proven ineffective in the long run when used by itself. Like exercise, it is a worthwhile, even necessary component in combination with other methods.

WEIGHT LOSS SURGERY: A PATIENT'S CHOICE

For those patients who meet carefully defined criteria, bariatric surgery may be recommended. Surgical treatment may be an option to patients who are severely obese, who have co-morbidities, and who are also well informed, motivated, and have acceptable operative risks. Each patient is expected to be committed and actively participate in their treatment and long-term follow-up care.

The time to consider surgery is when your weight is causing functional impairment and impacting your medical and emotional status. If you have to change what you do or cannot do what you want to do because of your weight, surgery can be a solution. Although, losing weight is complex as mentioned above, you should be convinced that further non operative methods are unlikely to be successful. Frequently, successful surgery can result in remission of multiple medical problems, less joint pain and a more active lifestyle. Another way to look at is that in all probability the majority with morbid or class 3 obesity will gain around 5 to 8 pounds annually. There may be brief periods of weight loss, but in general weight will gradually increase. Surgery breaks this trend and weight loss of 30 to 40% of total body weight is common with proper eating and exercise.

Surgery should always be taken seriously! Surgery requires a commitment to participate in a lifestyle focused on physical, psychological, nutritional, and long-term healthy living, with behaviors that support the commitment. The decision for surgical treatment requires a careful evaluation of the serious risks associated with operative treatment compared to the risks of other therapies or no treatment at all.

WHO IS A CANDIDATE AND FACTS ABOUT SURGERY

In general, for a person to be a candidate for surgery, most insurance plans will require the following:

- A BMI of 40 (Class III obesity) or > 35 (Class II obesity) with a life threatening co morbid condition. Increasingly, a BMI >30 or Class I obesity with Diabetes *may* qualify.
- Because surgery is a very serious undertaking, generally, candidates must have tried non-surgical treatments such as dietary programs, behavioral modification, and exercise.
- There must be no medical or hormonal reason for the clinically severe obesity. These conditions are rare, but require treatment of the underlying medical problem.
- The candidate must be fully informed about the surgery and what can be expected both as to weight loss and possible complications.
- The candidate must demonstrate a willingness to accept the risks of surgery and to make dramatic lifelong changes in his/her lifestyle, dietary habits, exercise, and to commit to medical follow-up.

IS SURGERY ALWAYS INDICATED?

Among the many reasons for a candidate's exclusion from immediate surgical consideration may be:

- The surgical treatment represents an unacceptable risk.
- The patient is not prepared to make the necessary lifestyle and/or behavior changes.
- There is active alcoholism or form of drug abuse.
- There is untreated or unmanageable psychiatric disability.
- Untreated eating disorders.
- Inability to comply with long-term follow-up.
- Specific medical contraindications on an individual basis such as malignancies or poor pulmonary and/or cardiac function.

SURGICAL APPROACHES

Since the advent of bariatric surgery in 1959, surgeons have continued to modify and improve surgical procedures taking into consideration the ineffectiveness of most non-surgical methods. Further enhancements are in development as new technologies and surgical methods become available.

Surgical operations for the control of severe obesity are based on multiple principles. Today's operations can manipulate the stomach, or the stomach and the small intestine. Classically, operations that only made the stomach smaller were called restrictive. We now know there are far more reasons that this operations favor weight loss than just reducing gastric capacity. Operations that manipulate the intestine were in the past considered to have a malabsorbtive component. This means that some of what is eaten is passed into the feces. Again, this is just a minor component of what occurs when portions of the intestine are bypassed. Food hits the distal intestine and stimulates special cells that release special gut proteins that reduce hunger, prevent gastric emptying and change insulin release. The reasons for surgery's effectiveness is far more complex than anyone anticipated. .

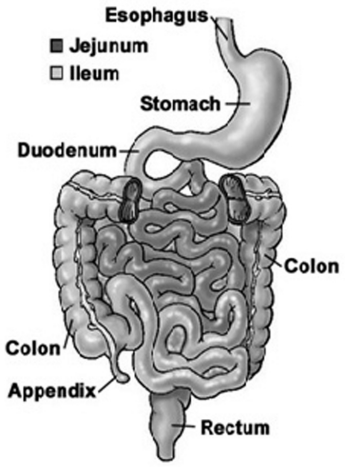
IMPORTANT ANATOMY AND DEFINITIONS

Food passes along the gastrointestinal tract from the mouth through the esophagus and stomach to the small and large intestine where the nutrients are absorbed. Waste then passes to the rectum where it is eliminated.

The esophagus is the tube that guides food from the mouth to the stomach for breakdown, mixing and storage. The stomach may hold as much as a 1½ quarts of ingested food. While the stomach does not absorb food, it does produce gastric acid necessary for digestion. Food empties from the stomach, passing gradually into the duodenum, which is the first part of the small intestine.

There are three parts to the small intestine: the duodenum, jejunum, and ileum. To aid in digestion secretions are mixed with food in each part and the nutrients are absorbed into the blood stream.

Waste products of this process pass from the small intestine into the large intestine or the colon. The primary function of the colon is to extract liquid and solidify the waste products of digestion prior to evacuation.

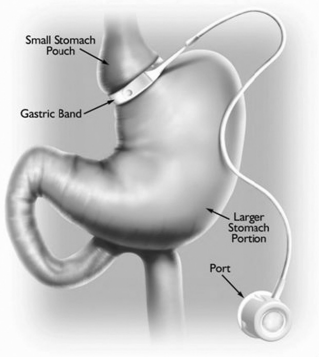


NON-STAPLING PROCEDURE

Laparoscopic Adjustable Gastric Banding (LAGB)

LAGB at one point was a very popular bariatric procedure. A silicone ring with an inner balloon is placed around the first portion of the stomach. In 2009, over 40% of bariatric procedures were LAGB. Today that number has declined to around 5%. This has happened because of poor weight loss and an increased number of patients having issues and requiring band extraction. As a result, top programs rarely offer LAGB.

The Lap-Band® system was first used in Europe in 1993 and was approved by the FDA in June of 2001 for use in the U.S. The REALIZE™ system has been used in Europe and other parts of the world for as many years, and was approved for use in the U.S. in 2007. LAGB uses an implanted medical device designed to induce weight loss in severely obese patients by restricting the amount of solid food consumed at one time. However, this implant does not seem to alter gut hormone secretion. Therefore, appetite suppression is less than stapling procedures..



Using the laparoscopic technique, surgeons implant an inflatable silicone band into the patient's abdomen. The band is then fastened around the upper stomach creating a new, small pouch and small outlet. This limits the amount of food intake and slows the emptying process into the stomach and intestine. After surgery, the diameter of the outlet between the small upper stomach pouch and the rest of the stomach can be adjusted through a port placed under the skin. Regular adjustments done at your office visits are key to good clinical results with the LAGB. At each follow up office visit we will assess the need to add or subtract fluid from the band.

Over 500,000 Lap-Bands® have been implanted in the U.S However, by 2016 more bands were being explanted than inserted.

Side effects may include:

- Nausea and vomiting
- Gastroesophageal reflux, also known as regurgitation
- This surgical procedure has the least short term complications, but comes with the highest risk of reoperation and need for conversion to another procedure

Complications may include:

- Band slippage/pouch dilatation
- Obstruction of the stomach-band outlet
- Esophageal dilatation or poor esophageal function
- Constipation, diarrhea and difficulty swallowing
- Leak or twist at the access port
- Band erosion
- Port displacement, port site pain
- Re-operation to fix a problem with the band or initial surgery

Endoscopic or Trans oral obesity treatments

Treatments for obesity that are performed through the mouth are getting increasing attention. It is important for patients to realize that currently available approaches do not over the weight loss results of surgical procedures. They are targeted for those who are generally too small or not ill enough to qualify for stapling procedure. Additionally, their durability and risk are still being determined

The FDA has recently approved several approaches. Intra-gastric balloons are now available. These are placed through the mouth and expanded to occupy space in the stomach. New models can now be swallowed. In the near future, there will be a balloon that is swallowed and then automatically be dissolved in several months. Therefore a separate procedure will not be required for extraction.

Patients can be nauseous for several days. The theory is the balloon takes up space and encourages early satiety. The balloons need to be removed or dissolve in 4-6 months. There is currently no insurance coverage for the procedure. Study results show weight loss while the device is in place, with a high likelihood of weight regain following device removal. Remember, the goal of these devices is that you will lose weight and learn new habits. There is no reason to believe that these devices will behave any different than when people lost weight on the biggest loser. There is no mechanism to change your set point. As a result, for those with a true energy storage disease causing their obesity, weight regain is probable.

Another endoscopic procedure approved for weight loss is the Aspire system.

A tube is placed into the stomach that exits through the skin. After eating the tube is attached to a suction system that removes what is eaten. Weight loss has been effective, however the system requires a tube exiting the body, and the suction of gastric contents. This does not seem to be a popular option.

Another approach is endoscopic vertical gastroplasty. Sutures are placed into the stomach via the mouth to make its capacity smaller. The idea is to mimic vertical sleeve gastrectomy without resecting the stomach. There is early weight loss, however, the durability of the sutures to hold and keep gastric volume small is still being determined and likely not comparable to current surgical techniques.

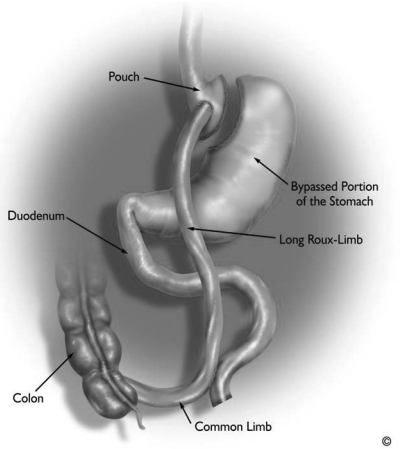
An increasing number of endoscopic treatments will be available over the next few years. The goal is to expand the procedure choices and make options available for those too small for bariatric surgery. To date, long -term results showing durable weight loss have not been achieved.

Presently, candidates for the best candidates for these procedures are patients who do not yet have class III obesity, and patients that have anatomy that precludes or makes a laparoscopic or robotic bariatric procedure too high risk to perform. An example are patients who have had multiple complex abdominal operations and the best access to their stomach would be through the mouth.

STAPLING PROCEDURE WITH A MALABSORPTION COMPONENT

ROUX-EN-Y GASTRIC BYPASS has been considered the "gold standard" and recognized by the National Institutes of Health (NIH) for the treatment of severe obesity. This operation combines gastric restriction with slow gastric emptying and malabsorption.

With this procedure, the stomach is divided to form a smaller pouch for food. As food enters the pouch it quickly fills and causes a sensation of fullness after eating only a small portion of food. The small bowel is re-routed to empty the new pouch. The remainder of the stomach is present, but no longer acts as a reservoir for food.



Roux-en-y Gastric Bypass can result in 60% excess weight loss up to 10 years after surgery, with some weight regain present in 80%. Additionally, 96% of certain associated health conditions or co-morbidities are typically improved or resolved following surgery.

Side effects may include:

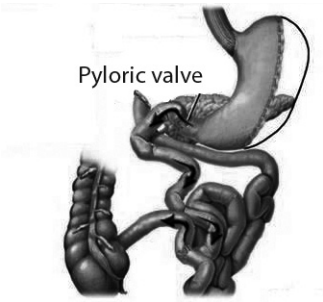
- Nausea and vomiting
- Potential food intolerances
- Constipation
- Possible temporary hair thinning or loss
- Vitamin deficiencies and need for supplementation
- Rapid emptying due to loss of pyloric valve
- Marginal Ulcer
- Stricture

Complications may include:

- Mortality rate .5% or 1/200
- Leaks
- Bleeding
- Blood clots
- Pneumonia
- Hernias
- Obstruction
- Stricture
- Anemia
- Long-term weight regain in many patients

PYLORIC PRESERVING PROCEDURES

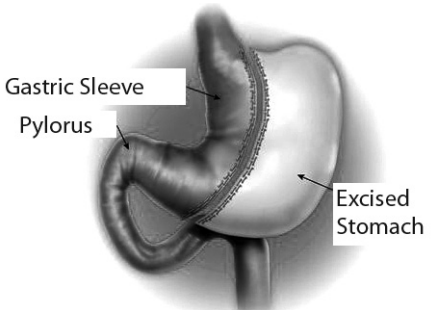
There is no question that over the last decade thousands of people have been helped by bariatric surgery and procedures such as the gastric bypass and laparoscopic adjustable gastric banding. However, as in any field, improvements come from the insights we gather. We have recently seen patients after gastric bypass procedures who years later regain weight. Our research shows that the pouch begins to empty rapidly leading to fluctuations in patient's glucose control. As a consequence many patients become hungry shortly after eating. We have developed the idea of using valves in the stapling procedures to control emptying by implementing the valve that the body already has called the pyloric valve. This valve resides at the end of the stomach.



The purpose of this section is to highlight the procedures where the pyloric valve, which serves as the outlet of the stomach, is preserved. The first procedure is a vertical sleeve gastrectomy. The advantage of this procedure is that there is no malabsorption, and thus the required nutritional supplementation is much lower than gastric bypass. The most definitive operation is the duodenal switch. This is the only operation that can boast 85% excess weight loss at periods of 3 years past surgery. Our program has done these procedures laparoscopically for years and our surgeons have trained others worldwide in these techniques.

Sleeve Gastrectomy

The sleeve gastrectomy is the most in demand operation for bariatric patients. The laparoscopic sleeve gastrectomy consists of making a stomach that looks like a long tube, therefore the name "sleeve". The remainder of the stomach, approximately 75–80%, is removed. The sleeve gastrectomy preserves the pyloric valve which acts as nature's band, providing for the normal process of emptying the stomach and for the feeling of fullness. No malabsorption is created and no foreign body or implant is involved. The new pouch is a small fraction of the original size of your stomach. One year weight loss results exceed those of gastric bypass.



Advantages of the sleeve gastrectomy are early weight loss results similar to bypass with lower need for vitamin and nutritional supplementation. We have seen medical benefits by preserving the pyloric valve which results in a reduction in glucose variability..

For patients who do have a sleeve gastrectomy, it is very important that they remain on a liquid diet and crush all pills for the first month following surgery. The surgery involves a long staple line at the edge of the stomach sleeve that can

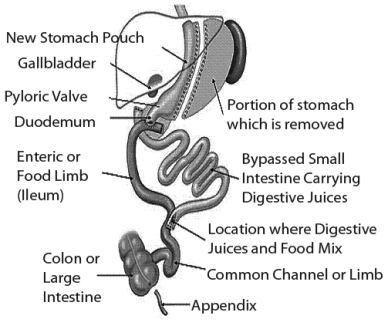
build up a high pressure. To preserve the staple line it is essential that retching and vomiting do not occur as this can cause stress in a potentially vulnerable area. Patients require a multi-vitamin and B-12 for the remainder of their life.

At Northwell/Lenox Hill Hospital we have been performing sleeve gastrectomies for more than ten years. We have had an active role in researching and developing techniques for this procedure and are well versed on its indications, contraindications and expected outcomes. As with any stapling procedure, there are certain risks. The risk that seems to be increased following VSG is reflux or heartburn. The VSG works because it is a narrow tube. The normal stomach relaxes to receive a food bolus. There is an incidence of patients that develop severe reflux and may require surgical correction and conversion to RYGB.

Duodenal Switch

The laparoscopic duodenal switch operation has two parts: A sleeve gastrectomy which involves removing part of the stomach but leaves a significant portion intact, including the pyloric valve which regulates the passage of food stomach contents into the small intestines and intestinal bypass in which the intestines are re-routed to a greater degree than in the Roux en Y gastric bypass procedure. Initial weight loss occurs because patients eat less, and long-term weight loss occurs because calories are not completely absorbed.

Like the sleeve gastrectomy, the pyloric valve is preserved. As a result, dumping is minimized or completely avoided. Complications such as stricture, dilation and ulcers at the connection between the gastric pouch and the small intestine seen with the gastric bypass are also avoided.



Earlier versions of the duodenal switch were complicated by protein malnutrition, vitamin deficiencies and diarrhea secondary to malabsorption. The surgeons at Northwell LHH limit the malabsorptive component of this procedure resulting in less nutritional defects and fewer bowel movements but still achieving excellent long-term weight loss.

The duodenal switch has been proven to provide the greatest weight loss as well as the longest lasting weight loss when compared to all of the other bariatric procedures. Most patients maintain their postoperative weight beyond 15 years. In addition, the duodenal switch has been studied for the longest and has the best record in alleviating diabetes, hyperlipidemia, hypercholesterolemia, hypertriglyceridemia, and obstructive sleep apnea.

Due to the greater technical difficulty and the increased risk of complications involved in performing the duodenal switch, few centers offer this procedure. Northwell LHH is one of the only hospitals in the entire northeastern United States where the laparoscopic duodenal switch is performed regularly. The surgeons at Northwell LHH have over 10 years of combined experience performing the duodenal switch and serve as instructors for this procedure.

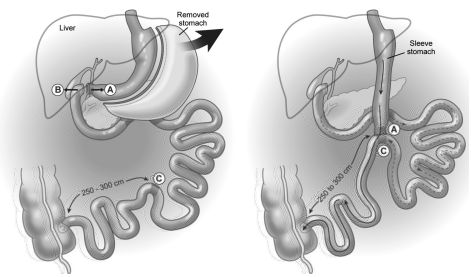
Again unique risk of this procedure is an increased risk of higher bowel movements and vitamin deficiency. As with RYGB, small bowel obstruction years following surgery can occur.

	1 YEAR WT LOSS	3 YEAR WT LOSS	EARLY COMPLICATIONS	LATE COMPLICATIONS
Band	40–50%	40–55%	Lowest risk	Highest chance reoperation
Bypass	70%	60%	›Band	Lower risk for repeat operation, higher vitamin and mineral deficiency
Sleeve	60–70%	50-60%	‹Bypass	‹Bypass for nutritional deficiencies and SBO
DS	75%	70-80%	Highest risk	Highest risk for malnutrition

Sips Stomach Intestinal Pylorus Sparing Procedure or Modified Duodenal Switch

Also known as the single anastomosis Duodenal Switch, delivers both restriction and decreased absorption. The first part of the surgery is performed by reducing the size of the stomach, which is similar to sleeve gastrectomy, but a little larger in volume. The second part is where the duodenum is separated, just below the pyloric valve, from the remaining intestinal tract. 300cm of the small intestine is measured from the terminal ileum, and that loop is connected to stomach. This longer channel leads to greater absorption of nutrients and vitamins and less bowel movements compared to the regular Duodenal Switch (DS) procedure. Another important difference between the SIPS and traditional DS is that there is only one opening between the stomach and the small intestine as opposed to two in the classic DS. The creation of Roux limb is also avoided in this procedure which we hope reduces the risk of bowel obstruction. SIPS is a logical modification of existing operations that hopes to reduce the complications related to roux limbs, and reduce diarrhea.

We have been a major force in developing what we believe will become the most logical bariatric procedure for those with BMI>50 and severe diabetes. The difference between SIPS and DS is that there is a single attachment and the common channel where food mixes with bile is longer. We now



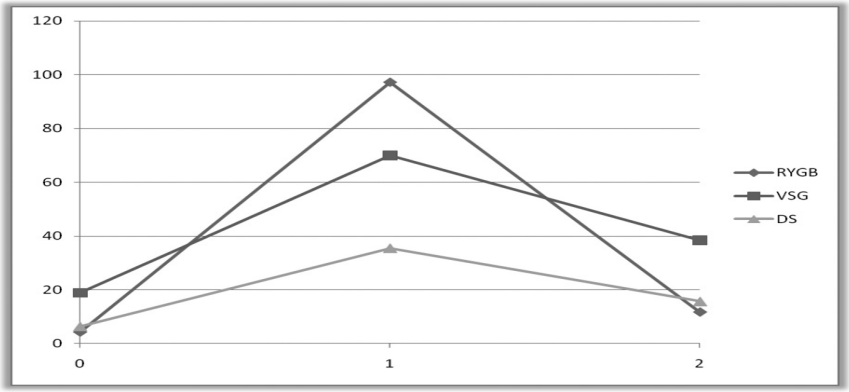
have 8 years of experience with this procedure and have presented data around the world. Weight loss rivals DS with a lower complication rate. Issues such as marginal ulcer, stricture and small bowel obstruction are rarely to never seen. Additionally, the lengthening of the common channel makes logical sense. The common channel only prevents fat absorption, yet fats don't cause obesity. Early data suggest with proper eating of whole foods including fruits and vegetables deficiencies in fat soluble vitamins can be prevented.

EVOLVING CONCEPTS IN BARIATRIC SURGERY

Many people who consider having bariatric surgery think it is relatively simple—by mechanically reducing the size of the stomach, they believe they will eat less, and ultimately lose weight and become healthier. For many years, many of us who practice bariatric surgery believed similar things. With current research we realize that bariatric surgery is much more complex involving many of the hormones that control hunger and satiety in the human body. It is very important when choosing a bariatric surgery understand the differences in the procedures and their ultimate effects.

Advocates of laparoscopic adjustable gastric banding highlight the fact that there is no permanent distortion to the anatomy. To the best of our knowledge, laparoscopic bands actually increase ghrelin levels and seem to have no effect on PYY. As a result, we explain to our patients that a laparoscopic band is a diet with a seatbelt, meaning that it will make it more difficult and increase the work of eating, but will not necessarily make every patient less hungry.

With the stapling procedures, there are radical effects on the hormones that control hunger and satiety. A sleeve gastrectomy operation removes the greater curvature of the stomach, removing many of the cells that produce ghrelin and satiety is felt earlier. Interestingly, because part of the greater curvature is involved in storage, there is also an increase in PYY, the fullness hormone. As a result, we very rarely encounter sleeve gastrectomy patients that are hungry in the first year following bariatric surgery.



6 month improvement in insulin sensitivity, fasting insulin, GTT and HgbA1c may suggest more physiologic glucose control with sleeve and ds

One of the impacts of adding an intestinal bypass to an operation is an increase in energy expenditure. The most common combination of a gastric procedure and an intestinal bypass is the Roux-en-Y gastric bypass. Our program has performed thousands of gastric bypasses and we believe it is an outstanding weight loss operation but have become concerned about the durability of the operation. In numerous patients over time we have seen rapid emptying from the gastric attachment to the intestine. Along with the rapid emptying, our research has demonstrated a high insulin reaction and following that high insulin, a low blood sugar making patients hungry between meals often causing relapse or weight regain in patients five to seven years following surgery.

As a result, we have looked for strategies to try to adapt our procedures. Our current research indicates that preservation the pyloric valve will be critical in procedures, as this valve controls the rate of emptying and prevents the high insulin spike that we see following gastric bypass.

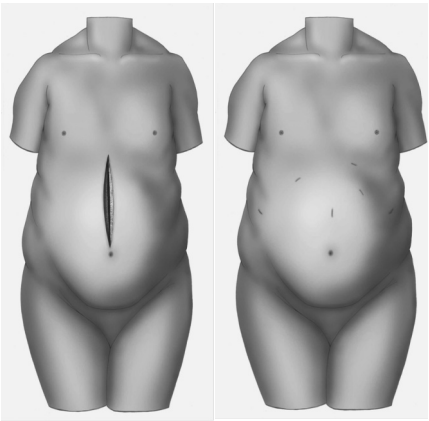
As a result, our preferential stapling procedures have become the sleeve gastrectomy and when more weight loss is desired through intestinal bypass, we place this beneath the pyloric valve as with SIPS. We believe that by preserving the pyloric valve long-term weight loss will be better sustained and the operations will be more durable.

OPEN VS. LAPAROSCOPIC SURGERY VS ROBOTIC

Open and laparoscopic refer to how the abdominal cavity is entered, not to the type of surgery being performed. Each type of weight loss surgery may be performed as either an open or a laparoscopic procedure.

When performing open surgery, surgeons create a single incision to open the abdomen for the operation. Typically, it is 5 to 7 inches.

When a laparoscopic operation is performed, a small video camera is inserted into the abdomen allowing the surgeon to view the procedure on a separate video monitor. Instruments are inserted through a series of small incisions about 1cm each. Most laparoscopic surgeons believe this gives them better visualization and access to key anatomical structures.



Open vs. Laparoscopic Incision

Laparoscopic surgery is not always possible. If large amounts of scar tissue are found from previous abdominal operations, the surgeon may need to switch to the open method.

Robotic surgery uses the same type of small access instruments as laparoscopy. Instead of the surgeon directly controlling the instruments, they are attached to robotic arms and the surgeon works from a console in the room. For primary bariatric procedures, the results are similar. In the future, as artificial intelligence is added to the robot there may be advantages for very complex revisions.

RISKS, COMPLICATIONS AND POTENTIAL SIDE EFFECTS

Although complications are infrequent, all surgical procedures have associated risks as well as benefits. Surgery for Morbid Obesity is considered major surgery and as with any major surgery, it comes with risks. These risks become more common as weight increases. It is important for you to understand fully the risks involved with surgery so that you can make an informed decision. Below is some information about risks connected with bariatric surgery. This is only a partial list; additional information is available from your surgeon. Your surgical team will use their expertise and knowledge to avoid complications in so far as they are able. If a problem does occur, your surgical team will use those same skills in an attempt to solve the problem quickly. Some complications can involve an extended hospital stay and recovery period. The importance of having a highly-qualified medical team like the one at Northwell/LHH/MMIBS cannot be overstated.

ANESTHESIA: Many patients have an instinctive fear of anesthesia. Extremely sensitive monitors used during surgery have greatly reduced the risks of anesthesia. The sophisticated monitoring system now used makes recognition and treatment of problems with anesthesia almost immediate. 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. In order to protect you from the dangers of vomiting during surgery, ***do not eat or drink anything after midnight on the night before you enter the hospital for your procedure.*** Your anesthesiologist will discuss the specific risks of general anesthesia with you before your surgery.

INFECTION: To guard against infection the operating room is maintained as a highly controlled sterile environment. Meticulous, efficient surgical technique further reduces the likelihood of infection. During your pre-operative exam, your primary care physician will establish that you are free from any conditions such as bladder infection, sinusitis or skin infection. The presence of such infections might require cancellation or postponement of your surgery until the infection has been resolved. *If you develop any symptoms between your pre-operative visit and your day of surgery notify your doctor immediately.*

BLOOD CLOTS: The risk of blood clots, also known as deep venous thrombosis or DVT, is related to the alterations in blood flow that occur during surgery. Blood clots most commonly form in the legs. When a clot travels to the lungs it is known as an embolism. Blood thinning drugs known as anticoagulants are used to reduce the risk of clot formation. In the hospital, compression boots will be used to further reduce this risk. After surgery you will be encouraged to move and exercise to prevent blood clot formation and embolism. *All medications that may interfere with bleeding, such as Plavix®, Coumadin®, Aspirin, NSAIDs and Birth Control pills must be stopped prior to surgery.*

PNEUMONIA: Post-operative pneumonia is related to immobility and the tendency of patients to not fully expand their lungs following surgery. Respiratory rehabilitation is therefore a key component of your recovery. You will be encouraged to cough, perform breathing exercises, and use devices such as an incentive spirometer to help keep your lungs clear.

MYOCARDIAL INFARCTION: In a small percentage of patients heart attacks can occur from weight loss surgery. You will be screened by a cardiologist and may have an echocardiogram and a stress test to evaluate your risk of a heart attack. Once you are cleared by a heart specialist and determined to be stable to undergo surgery you may schedule your procedure.

BLEEDING: Internal organs and tissues may become inflamed as a result of irritation from the procedure. Your surgeon uses precision tools, guides and highly refined surgical techniques to prevent damage to nearby tissues and blood vessels. Still there is a small risk of bleeding from your spleen and possible chance of removal where damage occurs. *All medications that may interfere with bleeding, such as Plavix®, Coumadin®, Aspirin, NSAIDs and Birth Control pills must be stopped prior to surgery.*

STRICTURES: Narrowing is often due to the formation of scar tissue or inflammation of nearby tissues. This narrowing can result in a stricture where food is not able to pass through your new digestive tract. If you experience persistent vomiting this could be a sign of a stricture. You should be seen in the emergency room right away. An endoscopy is sometimes used to diagnose and treat a stricture.

INTESTINAL OBSTRUCTION: A blockage may also occur as a result of scar tissue. Internal hernias may also cause an intestinal obstruction. An x-ray series known as an Upper G.I. series is sometimes used to diagnose an obstruction. The formation of an obstruction may require additional surgery.

INFARCTION: Following surgery, a loss of blood supply to the intestines may occur. This may require further surgery to prevent damage to internal organs and tissues.

HERNIA: Tissues at the site of your incision can become weak creating a pocket for underlying structures. This is known as an incisional hernia. Your surgeon will take care to suture these underlying tissues as well as your skin layers. Nonetheless, these problems can occur, albeit rarely.

LEAKS AND PERITONITIS: Band slippage and saline leakage have been reported after Laparoscopic Adjustable Gastric Banding. In stapling procedures such as the Roux-en-Y, Sleeve Gastrectomy and Duodenal Switch staple line leakage has been reported. In a small number of cases, stomach juices may leak into the abdomen. This condition is known as peritonitis and may require an emergency operation.

VITAMIN DEFICIENCY: These operations carry a risk for nutritional deficiencies. Patients are required to take a high potency multivitamin supplement daily for the rest of their lives to prevent these deficiencies. The risk is larger with malabsorptive procedures than with restrictive ones because the procedure causes food to bypass the duodenum and jejunum, where most iron and calcium are

absorbed. Decreased absorption of calcium may also bring on osteoporosis and metabolic bone disease. We recommend that you take 500 mg of Calcium Citrate three times per day to ensure proper absorption of Calcium. Calcium Carbonate is not readily absorbed after stapling procedures, so it is not a recommended Calcium supplement. Menstruating women may develop anemia because not enough vitamin B12 and iron are absorbed. B-12 deficiency can develop quickly, with little warning, and can become very dangerous. *Make sure to keep in contact with your medical team to have your vitamin levels checked regularly.* Patients who have the SIPS/Duodenal Switch surgery must also take fat-soluble (dissolved by fat) vitamins A, D, E, and K supplements.

ULCER: With these surgeries the normal digestive processes are altered. Stomach acids normally produced for digestion are still manufactured but not used in as great quantities. These juices will still flow through outlets created during the diversion, or through the normal tract in the case of the band. To prevent a build-up of acid and help prevent ulcers you may be required to take antacid medications following surgery.

DEPRESSION: Failure to understand and/or follow the behavioral guidelines after surgery may cause the patient to experience increased anxiety and stress levels that may affect long term weight loss management. Psychological and behavioral maladaptation reactions including depression and addiction transference may occur while adjusting to new eating patterns and lifestyle changes. Behavioral modification and therapeutic psychological interventions are useful adjuncts to planned adjustments in food intake and physical activity. Strong evidence supports the recommendation that successful long-term weight loss surgery programs should employ a combination of physical, nutritional, and behavioral modification. A comprehensive behavioral-based solution fostering health, confidence, self-esteem and balanced living helps to ensure long-term surgical success. Maladaptive eating behavior can undo an otherwise successful surgery.

THE CHOICE

Choosing weight loss surgery requires careful consideration. While image is often improved, weight loss surgery is major surgery, not a cosmetic procedure. Our goal is to help patients improve their quality of daily living, and live a healthier, improved life while achieving the benefit of improved confidence and an enhanced sense of self-esteem.

YOUR FIRST OFFICE VISIT

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.

OVERVIEW OF APPOINTMENT

After attending our Educational Seminar, you may schedule consultations with one of our surgeons, the nutritionist and the psychologist. These consultations are required prior to insurance approval. The staff will review all completed paperwork with you. This includes the Patient Registration Form, Patient Health History, and Nutrition Guide.

While we understand there are many skilled professionals who may participate in your care, it is through the collaborative efforts of our interdisciplinary team of specialists that we are able to provide the best pre- and post-operative care possible for our patients. *The program does not replace your Primary Care Physician and other Physicians who supervise your routine care. It is important to maintain all visits with your other care providers.* Our team will be more than happy to work with any personal providers for ongoing treatment needs.

Please bring your insurance cards, a detailed list of your medications, including herbal supplements and vitamins, and contact information for your Primary Care Provider (PCP).

FIRST STEP

Consultations

- To schedule a consultation appointment with one of our surgeons please call 212-434-3285.
- Referrals and Insurance co-payments are required at these appointments.

Nutritional and Psychological Evaluations

- As part of our integrated health service, you will need to make an appointment with our psychologist and our nutritionist for evaluation. You will need to attend a nutrition class which can be arranged the same day you see the surgeon if scheduled in advance.
- Please call for your appointments:
  - Nutritionist: 212-434-3285
  - Psychologist: Donna Rivera, PhD, 929-204-1106
    - There is a $150 fee for the psychological evaluation in most cases.

EMMI

- All participants must review EMMI prior to the pre-operative consultation. A personal access code for EMMI will be e-mailed to you when you make your consultation appointment. For an access number please call 1-888-WHY-WEIGHT.

Insurance Approval

- Please call your insurance carrier and become familiar with the benefits and specific requirements for your approval.

FORMS TO COMPLETE

The following forms may be downloaded from our website www.nycbariatrics.com and *must be completed by the final visit with your surgeon before hospital admission:*

- Patient Registration Form
- Patient Health History
- Nutrition Guide
- True/False Test
- Informed Consent

PREPARING FOR SURGERY

BEFORE SURGERY

Along with the clinical screens required to evaluate your health before surgery, we are committed to a multidisciplinary team approach. We aim to optimize your post-operative recovery and long-term success.

- Healthy Living Support Group—You are highly encouraged to join a group meeting that is held twice a month at the hospital. This will help you meet with patients both pre and post surgery and share your experiences.
- Supplements—Start taking multivitamins once daily to improve your general health. Further, take 500 mg of Calcium Citrate (CitraCal®) three times daily. Vitamin and mineral intake is especially important after Bariatric surgery in order to maintain good nutrition and health. We have found that if you start taking these supplements before surgery, it will be easier to remember to take them after surgery.
- Smoking—Smokers who undergo anesthesia are at increased risk for complications. Smoking also increases the risk of almost every potential complication after surgery. Patients are required to stop smoking eight weeks before surgery. Patients must agree to permanently refrain from smoking after surgery. If needed, ask your Primary Care Physician to write you a prescription for a smoking cessation aide. We will not offer surgery to patients who are unable or unwilling to stop smoking.
- Medication—Avoidance of aspirin and non-steroidal medications and blood thinners before surgery will be discussed during your consultation visit.
- Exercise—The best time to begin your exercise program is before your surgery. You may benefit from sessions with a Certified Personal Trainer or Physical Therapist who will work with you on your mobility, advise you on managing your activities of daily living, and help you prepare an exercise program for after surgery. Walking on a daily basis improves your circulation and makes breathing easier during recovery. Should you be unable to walk daily due to joint pain, then you may want to look into an aquatics program. Water exercises still condition your breathing, but are not weight bearing and are therefore easier for people who have joint problems. You will also benefit from having a plan in place, so you do not have to figure out your routine during the recovery phase.
- If you are currently seeing a mental health professional, taking psychiatric medication, or any other medicine, you are expected to inform all your providers prior to surgery and to maintain the continuity of your care.
- Further individualized information will be provided at the time of your consultation.

When will I be scheduled for surgery?

- Once you have completed the consultations and testing, a request for surgical approval will be made with your insurance company.
- Once documented authorization has been received and your surgeon has accepted you as a surgical candidate, a surgery date will be assigned.
- PLEASE allow adequate time for surgery scheduling.

INSURANCE CRITERIA

Patients often ask about their financial responsibility before surgery. An insurance specialist will review any financial responsibility before you have surgery. This may include any co-payments, deductibles or out-of-network fees. At that time, the specialist will assist you in making arrangements for payment.

Please contact your insurance company to confirm you have coverage for a bariatric procedure. Call your insurance carrier and become familiar with the benefits and specific requirements for your approval. Verification of insurance benefits will be confirmed by a Northwell LHH Insurance Specialist. The complete and accurate information you provide on the Patient Registration Form is very important for us to complete this process.

You may be required to begin with your primary care physician to ask for a referral to one of our bariatric surgeons. Even if you are not required to get a referral, it is good to have the support of your physician. Our surgeons will be coordinating care with your physician of choice.

Most insurance companies that cover bariatric surgery require submission of your personal indications showing that you meet their criteria. Required documentation may include but is not limited to:

- Attendance at an Educational Seminar and a consultation with one of our bariatric surgeons.
- Documentation of failed attempts to lose weight through physician-supervised diets. Length of weight loss attempt varies by insurance company. Check with your insurance company for their specific requirements.
- Proof of morbidly obese status for 2, 3, or 5 years.
- Psychological evaluation.
- Nutritional consultation.
- A complete history and physical exam by your primary care provider.
- Patient consent for surgery indicating that you understand the surgery, the risks involved and the alternatives to surgery.

Some insurance companies require criteria that may vary from the list provided. Whenever possible, our program staff will confirm the requirements and guidelines. Some insurance companies require proof that you have tried and failed to lose weight on a medically-supervised diet for 6 months or, in some cases, a 3-month multi-disciplinary program.

To assist in obtaining insurance approval, Northwell LHH and Bariatric Surgery Program will submit your documentation to the insurance company.

Patients will be responsible for gathering any medical records, test results and information needed from outside providers.

Surgery will be scheduled only upon the receipt of approval from your insurance company.

We recognize that access to surgery may prove difficult for some patients, especially for those with no insurance, where there is an exclusion of coverage, or when the insurance carrier has denied coverage. Several payment plan options are available. The terms of each plan, whether it is made through our office or through a financing company, are determined on an individual basis.

Payment in full is required prior to the operation.

If access to coverage is not possible, you may choose one of the following options:

- Self-pay arrangement
- Credit cards
- Loan from a financial institution

After surgery all billable charges will be submitted to your insurance carrier. Once the insurer has paid, we will reconcile the account and alert you if there is a remaining balance.

You will also be receiving statements from several different providers. This may include radiologists, internists, cardiologists, pulmonologists, anesthesiologists and pathologists. Providers all bill separately from the hospital.

PRE-OPERATIVE CHECKLIST

STEP 1: BEFORE INSURANCE APPROVAL

- Attend an Educational Seminar
- Complete EMMI
- Make Appointments 212-434-3285

  Surgeon

  Nutritional consultation and class

  Psychological evaluation with Dr. Donna Rivera

  There is a $150 fee for the psychological evaluation in most cases.
- A TSH blood test
- A pre-operative UGI or endoscopy is required before surgery and is valid for 1 year
- Medically supervised weight loss attempts are required by many insurances for surgery approval. If your insurance company requires documentation please gather all medical records from any physicians you have seen. These records must include the date you were seen, your weight at that time, and any notes from the physician on weight loss attempts.

Examples on the following pages

SAMPLE LETTER OF SUPPORT

****Letter should be on MD and/or Clinic letterhead****

Letter should be as detailed as possible. Insurance carriers prefer a typed letter. However, if this is not possible, please write legibly.

Date:

Re: Dob:

To Whom It May Concern:

The above named patient was seen at our clinic for a follow up appointment to discuss his/her weight loss needs.

(Patient's name) (current weight) has a history of obesity for over ( ) years. ***HX OF OBESITY MUST BE DOCUMENTED.*** Despite multiple attempts with diet and exercise he/she has failed to achieve long term weight loss. He/she is also known to have ***(Insert co-morbidities—ONLY THOSE THAT APPLY TO PATIENT:*** *such as diabetes, high blood pressure, high cholesterol, asthma, sleep apnea, lower back pain, knee pain, PCOS, etc). He/she is currently on the following medications* ***(Insert medications that apply)*** for the above condition(s). His/her weight is not due to any organic endocrine or metabolically correctable problem.

As a result, it is recommended that he/she undergo bariatric surgery to assist in weight loss, which will improve or reverse some of the existing health conditions.

If you have any further questions, please feel free to contact me at the above number.

Sincerely,

(Doctor's Name)

NYS License # *(MUST BE ON LETTER)*

TO SHOW WEIGHT HISTORY, PLEASE PROVIDE ONE (1) PROGRESS NOTE FOR THE LAST 2–3 YEARS SHOWING PATIENT'S WEIGHT—ONE FOR EACH YEAR.

PHYSICIAN SUPERVISED
6 Month Weight Loss

COMPLETE **ONE FORM FOR EACH MONTH** FOR 6 **CONSECUTIVE** MONTHS

INSURANCE APPROVAL:

This is a requirement from your patient's insurance company. These records will expedite case review. Please complete carefully.

Patient _____
DOB _____ / _____/ _____

Date of Visit _____ / _____/ _____ **Month ____ of 6**
Current Weight _____

I am directly supervising the above patient. Listed below are the specific aspects of the supervised weight loss efforts.

B/P:_____ / _____ P: _____ Wt: _____

Type of Diet:

Caloric Restriction:

Specific Type of Exercise: Frequency: Duration:

Physical Limitations to prevent exercise if any:

Pharmacotherapy:

Behavior Modifications:

Comments:

If you have any questions please contact me at:

DR. _____ _____ _____
Please print name Signature Date

Address:

Phone:

STEP 2: AFTER INSURANCE APPROVAL

- A date for surgery will be assigned ONLY after we receive approval from your insurance company.
- Make an appointment with our office to see your surgeon for a final pre-operative visit after your insurance approval has been obtained.
- Make an appointment with your primary care physician for the following tests AFTER you are given a surgery date.
  - Chest x-ray is valid for 6 months
  - EKG is valid for 3 months
  - Labs are valid for 30 days
- Sign Informed Consent.
- History and Physical Clearance Form to be completed by Primary Care Physician

PRE-OPERATIVE CHECKLIST

STEP 3: PRE-OPERATIVE INSTRUCTIONS

8 Weeks To 5 Days Prior To Surgery

- STOP taking Birth Control Pills 1 month prior to surgery
- Do not re-start Birth Control Pills for 1 month after surgery (Please use other forms of contraception during these times)
- STOP Smoking 8 weeks before surgery (Smoking shows significant increase in complications— You will be given a nicotine test the morning of surgery and your surgery will be CANCELLED if positive)
- Avoid alcohol consumption for 2 weeks prior to surgery
- STOP Aspirin 10 days before surgery unless otherwise discussed with your surgeon
- STOP Non-Steroidal Inflammatory medication 10 days before surgery (Motrin®, Aleve®, Advil® products)
- STOP Plavix® and Coumadin® 5 days before surgery
- Avoid weight gain

One Day (24hrs) Prior To Surgery

- Begin a clear liquid-only diet 24 hrs before surgery. Examples of clear liquids include the following:

Water	Broth
Decaf or Herbal Tea	Sugar-Free Beverages
Sugar-Free Jell-O®	Gatorade®
Sugar-Free Popsicles	

- It is very important for you to drink at least 6 glasses of liquid on the day prior to surgery
- Remove nail polish and trim the nails of the pointer finger of both hands
- Have nothing to eat or drink after midnight the night prior to your surgery
- Watch this video- http://reports.nsqip.facs.org/MBSAQIPDropVideo/

Lenox Hill Hospital

- The day before surgery call 212-434-3028. A nurse will instruct you on medications and any other pre-operative instructions
- Note: If your surgery is scheduled on Monday call on Friday
- Please arrive at the hospital two hours before the scheduled surgery time

ONCE SURGERY HAS BEEN SCHEDULED

Once the operation has been scheduled, here are some tips to help you prepare:

WORK ARRANGEMENTS

- If you work, make sure to submit all necessary paperwork, including disability forms for medical leave of absence.
- Plan to be away from work for about 2 to 6 weeks, depending on the type of work you do. Some patients do not wish to tell the people with whom they work what kind of surgery they are having, and this is perfectly appropriate. You may want to indicate that you will not be able to do any heavy lifting for several weeks after surgery.

CHILD CARE

- Arrange for someone to help with your children, including extra babysitting services and transportation while you are in the hospital and while recovering at home.

TRANSPORTATION

- Make arrangements in advance for who will be driving you until your surgeon clears you to drive. This will include departing from the hospital, your first follow-up appointment with your surgeon, and any other outings you can anticipate.

POST-OPERATIVE DIET AND SUPPLEMENTS

- Review the post-operative diet packet provided during your nutritional consultation.
  - Make sure you have appropriate food selections for your post-operative diet.
  - Make sure you have the right utensils for food preparation including a scale, measuring cups, baby spoon, blender, etc.
  - Make sure you have enough protein supplements and multivitamins to start your recovery.
- If you are not already doing so, begin taking a multivitamin recommended by your surgeon at least 2 weeks prior to the surgery.

PACKING FOR THE HOSPITAL

You will need to pack the following items:

- Photo identification
- Insurance card
- List of current medications
- Your pharmacy number so we may call in prescriptions for you

- Personal toiletries including a toothbrush, toothpaste, deodorant and a lip moisturizer.
- Magazine or book
- You may wear glasses and dentures to the hospital, but they will need to be removed immediately before surgery.
- If you use a CPAP (Continuous Positive Air Pressure) or Bi-PAP machine at home to help with sleep apnea, bring it with you for use while you are in the hospital.
- Do not wear makeup or fingernail polish.
- Bring casual, loose clothing to wear home.
- Do NOT bring large amounts of cash, credit cards or jewelry.

PRE-SURGERY INSTRUCTIONS

Please Adhere to the Following

- Do not take Aspirin or NSAID products for 10 days prior to surgery, as this can cause bleeding problems. Also, blood thinners such as Coumadin or Plavix must be stopped 5 days prior to surgery. You may use Tylenol if necessary. If you are unsure whether or not you should use a specific product, please call the office or check with your pharmacist before taking it.
- Avoid smoking or use of any other tobacco products 8 weeks prior to surgery.
- Avoid all beverages containing alcohol for 2 weeks prior to surgery.
- Estrogen replacement products or Birth Control pills must be stopped 4 weeks prior to surgery.

The Day before Surgery

CLEAR LIQUID DIET

On the day before your scheduled surgery, change your diet to clear liquids. A clear liquid is any liquid you can see through, such as weak tea, coffee, sugar-free popsicles, broth, sugar-free Jell-O® or clear sugar-free diet juice. You must not consume any alcohol.

SPECIAL INSTRUCTIONS

You are to have nothing to eat or drink after midnight the day before surgery. This includes chewing gum, consuming breath mints or use of tobacco in any form. You may brush your teeth and rinse your mouth, but be sure not to swallow anything. You may be asked to take your medication with a small sip of water the morning of surgery.

Should you develop a *cold, persistent cough, fever* or any changes in your condition during the days before your surgery, please *notify your surgeon immediately at 212-434-3285.* You will need to be re-evaluated for surgical readiness. You need to be in the best possible shape for anesthesia. Scheduling can be adjusted to your condition if necessary.

YOUR HOSPITAL STAY

PRE-ADMISSION REGISTRATION

On the day of your scheduled surgery, please arrive at the designated time and proceed to the Admitting Office.

Upon arrival at the Admitting Office, you will need your insurance card, photo identification and a complete list of medications that you are currently taking. You will also need the personal items required during your hospital stay previously suggested in the Packing for the Hospital section of this Handbook.

One or two members of your family or friends may wait with you in the pre-surgery waiting area as space allows. On behalf of the administrators, doctors, nurses and other hospital staff, we all wish you a very positive hospitalization and successful recovery.

WHAT TO EXPECT THE DAY OF SURGERY

To make the most of your hospital stay and your well being, here is some information about what you should anticipate on your day of surgery.

INTRAVENOUS (IV) LINE: Placed in your arm or hand, this is used to provide you with fluids and medication through your vein. It will be removed when you are taking fluids and oral pain medication.

ANESTHESIA AND PAIN CONTROL: As with any surgery, expect to be very sleepy the first day. There are several options for pain control including IV and oral medications, a PCA (Patient Controlled Analgesia) pump or epidural. Because early walking is vital to a complete recovery, you must not be over-sedated. Post-operative pain management is a top priority and we will design a regimen that best suits your individual needs.

OXYGEN: You will probably receive oxygen through soft tubes in your nostrils for at least the day of surgery, and perhaps longer. To ensure you get enough oxygen, you may be attached to a machine that reads your oxygen level using a comfortable clip placed over your finger.

SITTING UP AND WALKING: On the night after your surgery, you will be asked to sit up and dangle your feet over the side of the bed. You will then be assisted in walking. Walking is vital to your continued good health and recovery.

KEEPING YOUR LUNGS HEALTHY: Remember to take deep breaths and cough frequently to prevent respiratory complications such as pneumonia. You will receive an incentive-breathing device to use bedside which will help you keep your airways open.

ABDOMINAL BINDER: You may be wearing an abdominal binder when you return to your room. *You must wear this binder whenever you are out of bed.* It will reduce complications involving your incision. You will continue to wear the binder even after discharge until your surgeon approves removal.

BANDAGE DERMABOND: An adhesive material will act as a strong microbial barrier to protect your wound while it heals. The adhesive will wear off naturally after the wound can stay together on its own within the first week.

SEQUENTIAL COMPRESSION BOOTS: To help prevent complications and reduce the chance of developing blood clots, you will be wearing sequential compression boots on both feet whenever you are in bed. These boots apply slight, intermittent, alternating pressure to your feet and legs to improve circulation.

WHAT TO EXPECT THE DAY AFTER SURGERY

You will be in a bed that is specially equipped to help you to move around. By using the overhead trapeze you will be able to move yourself quite easily while getting in and out of bed.

On the day after surgery, most of the tubes will be removed, although your IV may remain until shortly before you are discharged.

Swallow Study

The day after surgery you maybe be taken to the X-ray/Radiology Department for a swallow study. This exam helps detect leaks from the new stomach created during the laparoscopic stapling procedures. With the LAGB surgery, this study will ensure proper placement and that the new stomach outlet is open.

Monitors

If you are placed on a heart monitor bed after surgery and are doing well you may be moved to a step down unit.

Diet at the Hospital

You will be given small amounts of ice chips and clear liquids to eat. You will need to ask your nurse for these. Remember to keep your intake within the guidelines provided by your surgeon. It is very important to not over extend your stomach. Notify your nurse immediately if you receive a tray of solid food or juice by mistake—*DO NOT EAT IT!*

HOW WILL I KNOW WHEN I AM READY TO GO HOME?

The hospital stay for the LAGB is usually same day. The hospital stay for the Roux-en-Y Gastric Bypass, Sleeve Gastrectomy, and Duodenal Switch is usually one to three days.

Your surgeon will determine when it is safe for you to return home. All patients are unique individuals and discharge time may vary from patient to patient.

The following questions must be answered with a 'yes' before hospital discharge:

- Are you keeping liquids down?
- Are you free of nausea and vomiting?
- Are you urinating on your own?
- Are you able to get out of bed and walk with minimal assistance?
- Is your pain controlled with oral pain medication?

Upon clearance by your doctor, you will be given:

- Oral and written instructions by your nurse.
- Prescriptions your doctor wants you to have, if not already given in the office.
- Follow-up information for your next office visit.
- What to do in the unlikely event of any emergency.

CALL YOUR SURGEON IF YOU EXPERIENCE ANY OF THE FOLLOWING

- Incisional pain or any pain or discomfort, unrelieved by pain medication
- Temperature above 100.5 degrees
- Increased swelling, redness, or drainage from your incision site
- Persistent nausea or vomiting
- Shortness of breath
- Chest pain
- Any additional concerns about your surgery

Prescriptions

- Prescriptions your doctor wants you to have will be provided on discharge if they were not already given to you in the office. If you need a refill on your medication please contact the office at 212-434-3285 and leave ample time for us to mail you a new prescription.

Medication Instructions

- Take prescribed medications as directed. Your surgeon will discuss your new medications before discharging you from the hospital.
- Avoid medications that may irritate your stomach. This includes all aspirin products, anti-inflammatory drugs, and arthritis medications. Check with your surgeon or pharmacist before you take any medications prescribed to you by other providers.
- Inform your surgeon of medications prescribed to you by other physicians.

Follow-up Appointment

- You need to be seen by your surgeon's team within the next 7–14 days.
- You should also see the nutritionist at the same time.
- Call the office at 212 434 3285 to make your appointments.

Activity Instructions

- Do not lift anything heavier than 10 pounds until cleared by your surgeon (approximately 4 weeks).
- It is very important to get up and walk several times each day. Walk as much as you can tolerate without becoming too tired. Try to increase the distance you walk a little each day.

- You may use the shower as often as you wish, but do not take a bath:
  - Do not let your incision soak in water.
  - Do not put cream, lotion, perfumed soap, or powder on your incision.
- With your surgeon's approval, you may go into a swimming pool after 4 weeks, but with restricted activity, i.e. wading.
- Do not drive a car until approved to do so by your surgeon.
- Ride in a car no longer than an hour at a time without getting out and walking for 10 minutes.
- You may resume light housekeeping or light work within 3-4 weeks.
- You may not resume sexual activity until approved to do so by your surgeon.

Diet Instructions

- Drink only full liquids or sugar-free Jell-O® until approved to do so by your surgeon or nutritionist.
- Sip small amounts of water at frequent intervals to prevent nausea and dehydration. The goal is 6-8 cups/ day.
- No carbonated beverages.
- Aim to consume at least 40 grams of protein per day. Read the labels.

HOME AGAIN

AFTER SURGERY

Preparing your Home

You should take time before your surgery to make sure your home is equipped for your return. Make sure you have tried several protein shakes and found one you like for use after surgery. You should have this available when you get home. Keep a phone list ready with important numbers. You may want to add numbers of some members of your support network to the back page of this booklet where important numbers are listed. When possible you may want to have some friends available to check on you your first few days home if you live alone.

Eating at Home

You will be given specific instructions prior to leaving the hospital about how to care for yourself to prevent pain and vomiting and to preserve the new anatomy created by surgery. The following are offered to help you during this process:

- Eat slowly and eat high quality food—PROTEIN FIRST.
- Chew foods until they reach a "mushy" almost liquid consistency.
- Take small bites.
- Eat to nourish your body physically not to feel better emotionally.
- Learn when to stop—one more mouthful may cause discomfort or vomiting.
- Learn that the feeling of fullness may be a feeling of pressure in the center of your abdomen or feeling of nausea.
- Remember, no liquids 30 minutes before, during, or after meals.
- Use your own chewing capacity to liquify foods—no blenders.
- Do not lie down for two hours after a meal.
- Do not eat during an anxiety-producing conversation—find another distraction.
- Eat a maximum of 3 meals and a minimum of one high protein snack per day.
- Remember to drink at least 64 ounces of WATER per day.
- Remember to eat in a CALM STATE.
- Remember to take your daily vitamins.

As you recover, you may find that you are having difficulty tolerating certain foods, which may come back up. This regurgitation is more likely to occur if you overeat, do not chew properly, eat rapidly, eat during a heightened emotional state, or combine solid foods and liquids.

Healthy Living Support Groups

Healthy Living Support Groups are offered to assist with empowering you to live a more balanced lifestyle, physically, emotionally, and spiritually. You are encouraged to attend our sessions both before and after surgery for life long results. Support groups are not a replacement for individual counseling on behavioral issues that can require intense behavioral therapy or psychotherapeutic intervention. A number of professionals including nutrition, behavioral and exercise experts participate at scheduled meetings. Support groups and informational sessions are an important part of the recovery process and are a unique commitment by our entire team to the long-term health and success of patients.

FOLLOW UP CARE

Initially, post-operative follow-up visits with your surgeon will be more frequent. We strongly encourage you to keep every post-operative visit including any laboratory or radiology studies that have been ordered. Nutritional services are included with our program and we strongly suggest you make an appointment to see the nutritionist at each visit. Follow-up visits and tests assist in the ultimate success of your surgery.

Overview of Appointments

Appointments are typically:

- Immediate post-operative visit as ordered by your surgeon, usually 2 weeks
- 6 weeks after surgery
- 3 months after surgery
- 6 months after surgery
- 12 months after surgery (including routine lab studies)
- 18 months
- 24 months
- Annually thereafter

What is involved with the follow-up appointments?

- Review lab results
- Review social and emotional changes
- Review medications and co-morbidities
- Evaluate your progress and weight loss
- Review exercise program
- Review nutritional requirements
- Provide encouragement
- Refer to other health care professionals, if necessary

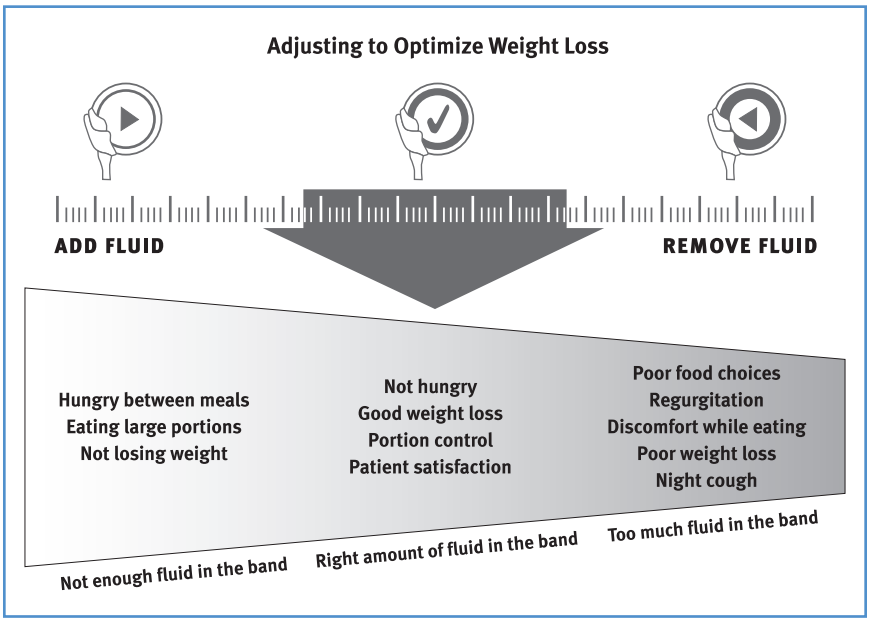
Laparoscopic Adjustable Gastric Band Adjustments

The key to good clinical results with the LAGB system is to find the ideal fill volume that helps patients achieve their weight loss goals. This requires frequent consultation and ongoing adjustments to help get you into an ideal fill volume for optimal weight loss. Adjustments are done in our office by injecting saline through your port into the band. The goal of band adjustments is to increase the band tightness around the stomach so you will be satisfied with less food.

The effectiveness of the band will vary depending on how close we are to the optimal adjustment. Your level of satisfaction after eating indicates if we need to add more fluid at each visit or whether we are close to the optimal adjustment.

The first fill is typically done 4–6 weeks after surgery. Thereafter we will assess your needs at each visit. After a fill you will stay on a liquid diet for 24 hours before resuming your regular diet.

The chart below will help you know when it is time for an adjustment.



Lab Requirements

Prescriptions for labs will be provided. Depending on your particular insurance, you may either take our request directly to a lab, or request an order from your Primary Care Physician.

If you have your lab work drawn elsewhere, bring any laboratory, radiology or other test results to the follow-up clinic appointments.

These studies help with your medical evaluation. Often, they are a wonderful reflection of your improving health.

COMMON PROBLEMS AND THEIR SOLUTIONS

DISCOMFORT AND PAIN: Mild to moderate discomfort or pain is normal after any surgery. If the pain becomes severe and is not relieved by pain medication, please contact your surgeon. *Note: you should avoid NSAIDS such as Advil®, as these types of pain relievers can be irritating to your stomach after surgery.*

NAUSEA: Nausea is often related to fullness, sensitivity to odors, pain medication, not eating, post-nasal drip and/or dehydration. During the first few days to weeks, another kind of nausea may follow the stapling procedures from delayed function; this spontaneously resolves itself with time. *If a person experiences this type of nausea, we feel it is very important to suppress it with medications, called anti-emetics. Persistent vomiting can lead to dehydration and electrolyte imbalance, and can cause vitamin deficiencies, since one cannot take the required supplements.*

VOMITING: Vomiting is often associated with eating inappropriately. After gastric restriction, if one gets a full feeling and continues to eat, chances are an episode of vomiting will result. Most patients have this happen several times, and most quickly learn to follow instructions to eat slowly, chew food well, and avoid the last bite when fullness occurs. Typically, with stapling procedures, a profound feeling of satisfaction follows the fullness within a few minutes, and makes further eating a matter of indifference. *If you experience vomiting that continues throughout the day, stop eating solid foods and sip clear liquids (clear and very diluted juice, broth and herbal tea). Should you have difficulty swallowing foods or keeping foods down, please call your surgeon. Vomiting may indicate that the stomach pouch is blocked. If vomiting continues for more that 24 hours, contact your surgeon, since vomiting can lead to severe dehydration, a situation that needs to be taken seriously.*

FROTHING: Frothing is another common side effect of stapling surgeries. As the new pouch heals, mucous is sometimes produced to help break down the food. For some patients, the mucous backs up into the esophagus and causes frothy clear vomiting. Frothing, if it occurs at all, is usually resolved by the third month post-operative. *Many patients find that hot water, with either tea or lemon, taken 30 minutes prior to a meal will help alleviate frothing or keep it to a minimum.*

DEHYDRATION: Dehydration will occur if you do not drink enough fluids. Symptoms include fatigue, dark-colored urine, dizziness, fainting, lethargy, nausea, low-back pain, and a whitish coating on the tongue. *Contact your surgeon if you believe that you may be dehydrated. In some cases you need to be admitted to the hospital so that fluids can be given intravenously. If you have difficulty drinking due to nausea, suck on ice chips, popsicles or protein drinks.*

DUMPING SYNDROME: Dumping occurs in response to a large load of simple carbohydrates such as those found in table sugar, ice cream, shakes and sugary desserts. When simple carbohydrates are dumped into the jejunum too quickly after eating, rather than gradually being released in small amounts, dumping

occurs. Symptoms of dumping include abdominal fullness, nausea, cramping or abdominal pain followed by diarrhea. Patients also report feeling warm, dizzy, weak or faint. They sometimes experience an increased heart rate and may break out in a cold sweat. *Restricting simple carbohydrates (rice, pasta, potatoes and other sweet-tasting foods), eating more protein and not drinking liquids during a meal can reduce the symptoms of dumping. Further, avoid foods that are very hot or very cold. These can trigger symptoms.*

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. Some patients have diarrhea for a few months. Most of these changes resolve within the first year after surgery as the intestines adapt. 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. Yogurt is okay. Look at what you are eating. If loose bowel movements continue, eliminate fruits and juices. Adding Metamucil® (unsweetened) to your diet will add bulk to your stools and keep you regular. If cramping and loose stools (more than 3 per day) or constipation persist for more than two days, please call your surgeon's office.* After restrictive surgery, the amount of food consumed is greatly reduced, and the quantity of fiber or roughage consumed may be much smaller. Correspondingly, the amount of bowel movements will be diminished, causing less frequent bowel activity, and sometimes constipation. *If this becomes a problem, a stool softener such as Colace® may be indicated to avoid rectal difficulties.*

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 is naturally present in the large intestines. Many carbohydrate foods cause gas; fat and protein cause very little. The foods that are known to cause more gas are beans, veggies, some fruits, soft drinks, whole grains/wheat and bran, cows milk and cows milk products, foods containing sorbitol and dietetic products. *Eat your meals more slowly, chew food thoroughly, avoid eating chewing gum and hard candy, eliminate carbonated beverages. If you are still having symptoms try remedies such as acidophilus, Gas X®, Gaviscon®*, and *Devrom®*.

LACTOSE INTOLERANCE: Lactose intolerance is a set of symptoms resulting from the body's inability to digest the cow milk sugar called lactose. Gastric Bypass and Duodenal Switch surgeries can unmask lactose intolerance, but not cause it. Lactose is commonly found in dairy-based foods and beverages, and is digested in the intestines by the enzyme lactase. Lactase breaks down lactose so it can be absorbed in the blood stream. When the body does not produce enough lactase, lactose cannot be digested which may result in lactose intolerance. Depending on the individual, the symptoms may vary, including cramping, diarrhea, bloating, gas and nausea. *Although there are supplements such as Lactaid® that you can take, elimination of dairy is the best approach to solving the problems associated with lactose intolerance.*

HERNIA: A hernia is sometimes felt as a bulge under the skin of your abdomen where the bowels are not being contained due to a weakness at the site of the

incision. You may feel pain when you lift a heavy object, cough, or strain during urination or during bowel movements. The pain may be sharp and immediate, or the pain may be a dull ache that gets worse toward the end of the day or after standing for a long period of time. *Minimize the risk of developing a hernia by avoiding heavy lifting for three months after surgery. Surgery is the only fix for a hernia. If the hernia comes out and will not go back in when you lie down and is associated with severe pain and vomiting, it can result in an emergency. Call your surgeon's office or your primary care physician on an emergency basis.*

YEAST INFECTIONS/THRUSH: You may notice that after surgery you may have a white, cottage cheese-like coating on your tongue. The tongue could also be very red and inflamed. Most likely you have a yeast overgrowth in your mouth known as thrush. This is often due to large amounts of antibiotics taken around the time of surgery. *Call your primary care physician if you have an oral or vaginal yeast infection or a rash on your skin. You can reduce this problem by taking lactobacillus acidophilus in addition to the prescribed regimen post-operatively.*

ANEMIA: Signs of anemia include pallor, weakness, fatigue, dizziness and shortness of breath. *We recommend that all menstruating woman take an iron supplement in order to prevent anemia.*

TRANSIENT HAIR LOSS: Hair thinning or loss is expected after rapid weight loss since calorie intake is much less than the body needs, and protein intake is marginal. This is a temporary effect and resolves when nutrition and weight stabilize. *You can minimize the loss of hair by taking your multivitamin daily and making sure that you consume at least 60 grams of protein per day. Additional supplements of zinc and biotin may also be helpful. Your doctor will recommend these as needed. We advise patients to avoid hair treatments and permanents. If symptoms persist you may use men's strength Minoxydil®* cream as directed on the box.

SWELLING AND BRUISING: Moderate swelling and bruising are normal after any surgery. *Severe swelling and bruising may indicate bleeding or possible infection.*

NUMBNESS: Small sensory nerves to the skin surface are occasionally cut when the incision is made or interrupted by undermining of the skin during surgery. The sensation in those areas gradually returns—usually within 2 to 3 months as the nerve endings heal spontaneously. *Be especially careful not to burn yourself when applying heating pads to numb areas.*

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.*

REDNESS OF SCARS: All new scars are red, dark pink or purple. The scars take about a year to fade. *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 sun light 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.*

HOW TO TAKE MEDICATION AFTER SURGERY

A major concern for patients after bariatric surgery is to avoid getting anything lodged in the opening that attaches the stomach and intestine. There are some foods and medications that will be difficult to ingest in the early stages of your recovery, but you may be able to take them later without problems. Discuss and confirm all medication needs with your surgeon prior to surgery.

Many medications can be cut or crushed before taking them if they are not designed to dissolve quickly. Medications that are "long-acting," "sustained-release," "extended release," or "time release," should not be crushed. If a tablet is scored, it may be cut, but not necessarily crushed. If you are not sure, ask your physician or pharmacist. Enteric-coated medications have a special coating that does not dissolve in the stomach, but dissolves later in the intestines. This protects the stomach from irritation, so do not cut or crush enteric-coated medication. However, avoid enteric-coated aspirin.

CAUTION: Gastric Bypass, Sleeve Gastrectomy and Duodenal Switch patients may experience ulcers or bleeding with extended use of aspirin and non-steroidal anti-inflammatory drugs (NSAIDS). ALL patients are asked to contact their surgeon when NSAIDS or aspirin are necessary.

A LIST OF SOME MEDICATIONS TO AVOID AFTER SURGERY

This is not a complete list—please discuss with your pharmacist and surgeon

- Advil®
- Ansaid®
- Aspirin
- Naprosyn®
- Percodan®
- Indocin®
- Pamprin-ib®
- Midol®
- Ibuprofin®
- Anaprox®
- Aleve®
- Motrin®
- Bufferin®

Please note, these drugs may also be in other types of medication. Always check ingredients or with a pharmacist or doctor. Patients cannot take aspirin, anti-inflammatory or arthritis medication after surgery.

Medication absorption changes after surgery. Medication levels may need to be monitored closely by a lab. The lab draws the patient's blood and determines the amount of drug present in the blood. The physician decides the dose of medication based on the test results.

Medications that often require blood levels are:

- Coumadin®
- Lithium®
- Digoxin®
- Seizure medications
- Thyroid drugs
- Heart rhythm medication

If you regularly have blood tests to monitor your medication, it is advised that you check with your physician about having blood levels drawn after your surgery.

Tips for Taking Medication After Surgery

- Always stand or sit up to take medication.
- Always follow medication with liquid taken in small amounts every 5 or 10 minutes.
- If you need to take more than 1 tablet or capsule take them 5 minutes apart.
- If medication is larger than an M&M® and you are concerned about its size, check to see if it might be cut or crushed or the capsule opened.
- If you think a tablet or capsule may be lodged in your digestive tract, stop eating solid foods and sip small amounts of warm liquids until it dissolves.
- Gastric Bypass, Sleeve Gastrectomy and Duodenal Switch patients must crush all pills for one month following surgery.

If you have additional questions about your medication please ask your doctor.

PREGNANCY AFTER SURGERY

Many women plan to become pregnant after surgery. Here are some key points you must consider:

- It is important that you wait to become pregnant until you have sustained weight loss after surgery, which often takes 2 years. It's not recommended for you to become pregnant before this time, so please discuss appropriate birth control methods with your physician of choice.
- If you become pregnant before the 2-year period, you should immediately contact your surgeon and obstetrician. Such pregnancies may carry higher risks for low birth weight, developmental defects and miscarriage.
- Begin planning for pregnancy before you have surgery. Discuss your questions and concerns with your surgeon and obstetrician. Following surgery, make sure to follow all medical and nutritional guidelines. Be sure to inform every provider about your bariatric surgery.
- Regular contact with a nutritionist and a provider who are well-acquainted with the post-operative bariatric requirements of mother and baby is recommended.
- During pregnancy, you will have the same nutritional needs as a woman who has not had surgery. You may need to take in more protein, vitamin and mineral supplements because your food intake is limited.

You will need to make sure to take in proper amounts of calories and the following nutrients:

- Protein
- Calcium
- Iron
- Vitamin B-6
- Vitamin B-12
- Folate (folic acid)
- Zinc

GUIDELINES FOR MAINTAINING GOOD HEALTH

During your initial and long-term recovery you may find it helpful to continually review the Physical Activity and Nutrition sections of this handbook.

NUTRITION AFTER SURGERY

After surgery you will need to make changes to your eating patterns. The diet after surgery progresses from a liquid diet to a pureed diet to a soft diet and then a modified regular diet. The diet progression is designed to allow your body to heal. Initially, it will help you meet your protein and liquid requirements, and later, to assist you in meeting your nutritional needs. *It is imperative that you follow the diet's progression and adhere to this regimen to maximize healing and minimize the risk for unnecessary complications.*

Some tips for eating after surgery:

- You will eat smaller portions of food and find that you are satisfied.
- Designate a time and a place where you eat. When you leave your designated place all eating should cease.
- Avoid eating on the run, or mindless eating such as watching TV, working on the computer, or reading a book. This is KEY to long-term success.
- Make sure that each and every meal is at least half composed of protein.
- Eat slowly. Take a look at your meal before eating so you really see how much you will be putting into your new pouch. Take your time to avoid discomfort and potential nausea.
- Chew your food well. Swallowing food without chewing properly may block the opening which may result in vomiting or the inability to eat or drink anything until food is gradually digested.
- Avoid eating sweets and sugars. These types of foods are a source of empty calories and may cause you to become hungrier which can hinder weight loss efforts.

FLUIDS

Drink 6-8 cups of fluid per day, between meals. Recommended beverages are water and unsweetened, low-calorie, non-carbonated drinks.

Here are some tips:

- Do not drink 30 minutes before or after meals.
- Sip slowly and carefully.
- Sip fluids continually all day long to prevent dehydration.
- Avoid drinking from a fountain or straws. You may swallow air and the gas will put pressure and pain on your pouch.
- Eliminate high-calorie drinks such as milkshakes, soda, alcoholic beverages and juices. These can slow down or cease weight loss.
- Try water that is filtered if you feel that tap water is not staying down. You may want to try Smart Water by Glaceu™ or Dasani®.

PROTEIN

Protein helps wounds heal, aids in tissue repair, boosts your metabolism, and fights infection. It is important to get at least 60 grams of protein daily. Remember that if you have not taken in adequate amounts of protein after three weeks, your body will start to break down its own muscle. This will cause you to feel nauseated and weak. It is important to prevent this from happening.

If the focus of each meal is protein-rich foods, deficiency is very unlikely to occur. Early on, when you are taking in protein drinks, it is easy to keep track of how much protein you are consuming, but later, when you are eating regular food, it may be a little more difficult. Use the nutrition labels as your guide.

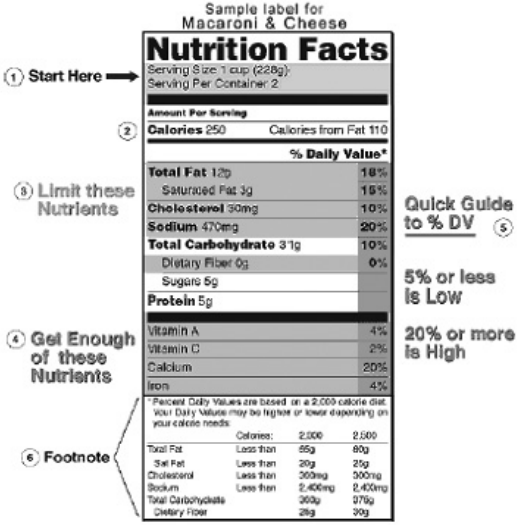
Labels are a great source of information. They give you in-depth information about the product you are purchasing with regards to the amount of fat, protein, carbohydrates, sugar, and fiber it contains. Become a label reader and become more aware of what you put into your body.

Guidance on How to Understand and Use the Nutrition Facts Panel on Food Labels

People look at food labels for different reasons. The following guide is intended to make it easier for you to use nutrition labels to make quick, informed food choices that contribute to a healthy diet.

THE NUTRITION FACTS PANEL HAS TWO PARTS:

The main or top section *(see #1–5 on the sample nutrition label)*, contains product-specific information (serving size, calories, and nutrient information) that varies with each food product; and the bottom part *(see #6 on the sample nutrition label)*, contains a footnote. This footnote is only found on large packages providing general dietary information needed for a balanced diet on a daily basis.



U.S. Food and Drug Administration
Center for Food Safety and Applied Nutrition
June 2000

Below is a list of some popular protein drinks and supplements and the ordering information:

Ready Made Protein Drinks	Product Name	Website
EAS	EAS AdvantEDGE Carb Control®	www.eas.com Duane Reade stores
Premier Protein®	Premier Protein®	www.gnc.com
GNC	ProPerformance 100% Whey Protein®	www.gnc.com
Soy Based	**Spirutein®	www.spiru-tein.com
Maxi Health	**Naturemax Plus Protein Powder®	www.maxihealth.com
Cytosport	Myoplex Light	

**Kosher Supplements

Here is a list of the most popular protein rich foods and their nutritional value in regards to protein:

Food Name:	Portion:	Protein Amount:
Beans, kidney, canned	½ cup	8 grams
Beef, eye of round	3 oz	21 grams
Beef, top loin	3 oz	21 grams
Cheese, cottage	½ cup	14 grams
Cheese, Ricotta	¼ cup	8 grams
Chickpeas	½ cup	7 grams
Chicken, breast	3 oz	26 grams
Crab, steamed	3 oz	17 grams
Egg	1	8 grams
Ham	3 oz	21 grams
Hamburger	3 oz	21 grams
Lobster, steamed	3 oz	16 grams
Pork	3 oz	21 grams
Salmon	3 oz	21 grams
Shrimp	3 oz	18 grams
Soybeans, Edamame	½ cup	14 grams
Soy nuts	¼ cup	15 grams
Steak, sirloin	3 oz	26 grams
Tempeh	½ cup	16 grams
Tofu	½ cup	10 grams
Tuna, canned	3 oz	25 grams
Turkey	3 oz	21 grams
Veal	3 oz	21 grams
Yogurt, Greek	1 cup	20 grams

Proper Portion Control

The following guidelines may help you when preparing your meals.

1 oz meat	the size of a matchbox
3 oz meat	deck of cards, or bar of soap
3 oz fish	size of a checkbook
1 oz of cheese	size of four dice
medium potato	size of a computer mouse
2 tbsp peanut butter	size of a ping pong ball
1 cup pasta	size of tennis ball
average bagel	size of hockey puck

Measuring Conversions

Dry Measurement Conversions	Fluid Measurement Conversions
3 tsp = 1 TB	1 fluid oz = 30 cc's
2 TB = 1 oz = 28.3 gms	4 oz = ½ cup
4 TB = 2 oz = ¼ cup	8 oz = 1 cup
8 TB = 4 oz = ½ cup	2 cups = 16 oz = 1 pint

FOOD GUIDE FOR EACH POST-OPERATIVE STAGE

Day 1: Stage I Clear Liquids

Take small sips at a rate of 4 ounces (½ cup) per hour. Do not use a straw! It can trap gas and you will already be gassy.

- Sugar free, calorie free, caffeine free, non-carbonated beverages
- Ice chips, water, diet beverages with less than 40 calories per serving
- Hint Water®, Diet Snapple®, Crystal Light®, Propel®, G2 by Gatorade®, Vitamin water Zero®
- Clear beef, chicken, turkey or vegetable broth
- Miso soup
- Sugar-free popsicles or sugar free jello

Day 2–14: Stage II Full Liquids

Liquids that are well tolerated include:

- All fluids listed above, V8® tomato juice, blended or pureed soups, low fat milk, unsweetened almond milk, soy milk, approved protein shakes
- Protein Shakes—must be less than 10g sugar/ serving (whey, soy, plant protein shakes ready to drink or powder form)By **Fifth Day** you may add-low fat plain Greek yogurt (Fage®, Chobani®), light varieties of yogurt (Dannon Light n' Fit), puddings and blended soups if tolerated

- By **Tenth Day** *if hungry* add hummus, peanut butter or homemade egg drop soup. You may try guacamole.

SAMPLE MENU FOR STAGE II FULL LIQUIDS

	Breakfast	Lunch	Snack 2x day	Dinner
Day 4	4 oz Shake made with 1 scoop protein powder, 1 c low fat milk	2–3 oz 96% fat free Healthy Choice soup,	4 oz protein shake *sips of water throughout the day	3–4 oz chicken broth No noodles
Day 5	4–6 oz protein shake made with 1 c low fat milk	1 Egg blended in 4 oz chicken soup	4 oz protein shake	2 oz blended runny lentil bean soup
Day 6	4–6 oz protein shake made with 1 c soy milk	4 oz tomato soup	4 oz protein shake	4 oz low fat cream of chicken soup
Day 7	2–4 oz 2% fat greek yogurt	1pkt Lipton chicken soup w/1 tbsp silken tofu	4 oz protein shake	2 oz mashed runny black beans
Day 8	2–4 oz 2% fat greek yogurt	2–3 oz skim ricotta cheese w/ vanilla extract and 1 pkt Splenda	4 oz protein shake	3–4 oz chicken soup
Day 9–14	2–3 oz greek yogurt mixed w/ 1 spoon mashed banana	mashed beans	4 oz protein shake	3–4 oz egg drop soup

Day 15: Stage III Thin Purees

During this very early period limit your intake to foods that roll easily off the back of a spoon, in very small amounts. This will give your new stomach pouch time to heal properly.

You will increase your clear liquid intake to 6-8 cups per day. Sip fluids in between meals to prevent dehydration. Remember "The RULE of 30"—Wait 30 minutes to drink after eating.

Add pureed protein sources as tolerated. Protein sources are encouraged as 3–6 small (bite size portions) meals per day. Chew very well with each bite.

- All well-tolerated liquids listed above
- Cottage cheese, soft tofu
- Baby foods with less than 10 grams sugar per serving (you MUST read the label)
- Scrambled, poached or soft boiled egg
- Pureed soups or egg drop soup (no chunks of meat or vegetables unless pureed)

- Pureed bean dishes
- Oatmeal thinned with milk
- Mashed veggie burger
- Blended tuna and chicken salad if all above tolerated well

SAMPLE MENU STAGE III THIN PUREE
AN 8 OZ PROTEIN SHAKE MAY BE SUBSTITUTED FOR ANY MEAL

	Breakfast	Lunch	Snack x 2 (if hungry)	Dinner
Day 15	2 oz oatmeal w/ cinnamon	3 oz mashed cauliflower 1 tsp margarine 1 tsp parm cheese	protein shake	3 oz 2% greek yogurt 2 oz chopped cooked spinach
Day 16	1 very soft boiled egg	3–4 oz Greek yogurt w/ cooked spinach	1 tsp peanut butter	1–2 oz Silken tofu cooked in chicken both
Day 17	2–3 oz Greek yogurt 1 tbsp unsweetened applesauce	1 egg whisked and boiled in 4 oz chicken broth	1 tsp almond butter	2–3oz split pea soup 2 tbsp tofu added
Day 18	2–3 oz cottage cheese	mashed veggie burger	4 oz protein supplement	blended lentil soup
Day 19	1 poached egg	2–3 oz sugar free oatmeal 1 c low fat milk	1tsp hummus (chickpea spread)	vegetable souflee (egg fritata)
Day 20	2 tsp peanut butter	2 oz blended tuna	4 oz protein supplement	2 oz blended chicken salad

Starting Fourth Week: Stage IV Thick Purees

Check with your Dietitian or Doctor before progressing to this phase. It is still very important to adhere to the guidelines; as your pouch is still healing you must eat very slowly and chew very well. Limit your intake to liquids, and thick pureed foods if all foods listed above are tolerated. Thick pureed foods mash with the back of a fork. Foods well tolerated during this period are moist, juicy tender products in small servings in no more than of 3–4 oz pureed or well-cooked soft vegetables and fruits; pureed dark meat chicken or turkey, tofu, baby shrimp, white flaky fish such as sole, tuna with light mayonnaise, egg salad, liverwurst, and pate.

SAMPLE MENU WEEK 4
1–2 OZ PROTEIN + 1–2 OZ VEGETABLE/FRUIT AT MEALS

	Breakfast	Lunch	Snack	Dinner
Day 21	1–2 oz soggy Bran Cereal w/ unsweetened almond milk	1–2 oz tuna 1 tbsp low fat mayo	4–6oz greek yogurt 1 oz blueberries	1–2 oz crustless quiche 1oz cooked broccoli florets 1 tsp coconut oil
Day 22	4–6 oz cottage cheese 1 oz blueberries	1–2 oz egg salad 1 tbsp low fat mayo	1 tbsp sunflower seed butter	1–2 oz tender fish 1oz mashed cooked carrots 1 tsp olive oil
Day 23	1–2 oz 1% cottage cheese w/ 1 oz berries	4–6 oz soup 1 oz string beans	1 string cheese	1 egg frittata 1 oz sweet potato 1 tsp olive oil
Day 24	1–2 poached eggs	1–2 oz fat free refried beans 1 oz tomato salsa	1–2 oz light, skim ricotta cheese 1 drop of vanilla extract, 1 pkt Splenda, cinnamon	½ veggie burger
Day 25–27	1 pkt Kashi oatmeal made with 4 oz low fat milk	4-6 oz 98% Fat Free Healthy Choice Soup – cream of broccoli, mushroom, or chicken	1 tsp peanut butter	1–2 oz tuna 1 tbsp low fat mayo 1oz cooked spinach

Starting Fifth Week

As you progress your diet in the fifth week you may experiment with new foods that are chewed to almost a paste before you swallow.

SAMPLE MENU WEEK 5
2 OZ PROTEIN + 2 OZ VEGETABLE/FRUIT AT MEALS

	Breakfast	Lunch	Snack	Dinner
Day 28	2 oz Cream of Wheat 4 oz of low fat milk	2 oz egg salad w/ 1 tbsp low fat mayo	1 tsp peanut butter	2 oz poached cod 2 oz baked potato 1 tsp butter
Day 29	1 scrambled egg 1 oz melted low fat cheese 2oz salsa	2 oz tuna salad w/ lowfat mayo 2oz tomatoes chopped	8 oz protein supplement	2 oz tender fish 2 oz mashed cooked carrots 1 tsp coconut oil
Day 30	2 oz 1% cottage cheese 2 oz blueberries	2 oz chopped liver	1 Laughing Cow® cheese wedge	1 egg frittata 2 oz chopped veggies 1 tsp butter
Day 31	1-2 poached eggs	2 oz fat free refried beans 2 oz avocado	2 oz skim ricotta cheese vanilla extract, 1 pkt Splenda,	turkey cold cuts
As tolerated	1 pkt oatmeal made with 4 oz milk	2 oz poached cod 1 oz chopped stewed tomato	8 oz protein supplement	2 oz dark meat chicken salad 1 tbsp low fat mayo
As tolerated	8 oz protein supplement	split pea soup	4-6 oz light yogurt	2 oz veggie chili 2 oz melted shredded cheese

Sixth Post op Week

Tolerance to foods varies from one individual to the next. Gradually, try other sources of protein such as soy products, poultry, fish, seafood, and lastly meats. We advise patients to avoid red meats until their stomach is functioning very well, usually after 3 months. Tolerance to food may improve over time. Always be sure to chew your food very well, take small bites and eat very slow. Try only a very small amount at first. Cook foods without added fats. Make sure foods are moist, juicy and tender. Avoid reheating foods as they may dry out. Remember that the sample menu plans provided are guidelines. Do not force anything if you feel fullness or tightness in the chest. Consult our nutritionist with questions and keep a food log of what you eat.

SAMPLE MENU WEEK 6
AN 8 OZ PROTEIN SHAKE MAY BE SUBSTITUTED FOR ANY MEAL

Breakfast	Lunch–(add light calorie toast only if tolerated and hungry)	Dinner
1–2 scrambled eggs 1 oz shredded low fat cheese	2 oz tuna salad 1 tbsp low fat mayo 2 oz baby spinach	2 oz seafood salad
2–3 oz old fashioned oats 3 tbsp blueberries 1c milk	3 thin slices of Healthy Choice ham 1 slice tomato	2–3 oz cooked salmon 1–2 oz peas and carrots
3–4 oz 1% cottage cheese 2 oz strawberries	3 thin slices deli turkey 1 slice tomato	2–3 oz boiled beans 1 oz low fat cheese
½ low sugar high protein bar	2–3 oz egg salad 1 tbsp low fat mayo 1 slice lettuce and tomato	2 oz pork tenderloin 1 oz applesauce 1–2 oz asparagus tips
4 oz skim ricotta cheese 3 tbsp blueberries 1 pkt Splenda ¼ tsp vanilla extract, cinnamon	2–3 oz blended chicken salad 2 oz chopped green lettuce and tomato	2–3 oz baby shrimp salad 1 tbsp light mayo 1–2 oz cooked broccoli
oatmeal w/ peanut butter	4 oz 3-bean salad	2 oz flounder 2 oz mango salsa

Foods for variety

Category	Blended Foods	Difficult Foods	Foods to Limit
PROTEIN **Meats 8–10 oz per day**	All meat, poultry, eggs, beans, tofu are allowed. Beans, custard eggs, or soft cooked eggs, and tofu best tolerated followed by dark meat poultry, veal, turkey, and then red meat.	Dry, overcooked, or tough meats with gristle. White meat and beef may never be easy to tolerate.	Fried meat No more than ¼ C nuts and seeds or trail mix
DAIRY	Greek yogurt, Low-fat milk/ cheese, ricotta cheese, cottage cheese, or yogurt.	All dairy products from a cow if lactose intolerant after surgery.	Anything made with cream, condensed whole or sweetened milk,
CARBOHYDRATE **whole grain and starchy vegetables**	Crackers only to treat nausea. All cooked/hot cereals, grits. Cooked and mashed white or sweet potatoes, carrots, peas, green beans, squash.	Soft, doughy breads that become gummy, breads with nuts or dried fruit. Bagels, doughy pizza. Cereals containing dried fruit, nuts, and › 6 gm sugar. Potato skins, rice macaroni, pasta, tortilla.	Donuts, pastries, Danish, sweet breads, crackers, and coffee cake. All cereals with added sugar, most types of granola. Potatoes in moderation due to high carbohydrate content.
FRUITS	Berries are best		None
COLORFUL VEGETABLES **Serving size:** **½ C cooked,** **1C raw**	Fresh, canned and rinsed, frozen or cooked. Tomato salsa, sauce, chopped broccoli florets, asparagus tips, spinach.	cooking vegetables can help with gas and softer on the stomach	None
FATS **Serving: 1 tsp**	Olive and canola oil, coconut, oily fish, ground flaxseeds, peanut butter,	Fried foods. Whole fat cream soups, nuts and seeds.	fried pastries, fatty cuts of meat . Creamy salad dressings.

Category	Blended Foods	Difficult Foods	Foods to Limit
BEVERAGES **8–10 cups per day** **Serving: 8 oz or 1 C**	Water, tea, decaf coffee, skim milk, Propel Fitness Water®, Crystal Light®, Diet Snapple®, diet juice. Light soy milk. unsweetened almond milk.	Milk if lactose intolerant, carbonated beverages even when flat, regular juice.	Fruit juices, punch, Kool Aid® w/ sugar, whole milk, high-calorie drinks, coffee drinks, chai tea drinks, alcoholic beverages, and milkshakes.
SOUPS **Serving: 1 C**	All blended or strained soups. Lipton® chicken noodle soup; Healthy Request® cream soup.	Soups with large pieces of meat, vegetables, pasta or rice.	Full fat cream soups.
DESSERTS **On occasion!** **Not every day or every week.**	Frozen, sugar free ice pops, diet pudding, fresh berries and Cool Whip®, diet gelatin, sugar free cocoa.	Dessert with nuts, dried fruits, coconut, chocolate, any type of frosting or syrup.	All dessert, cookies, candy, low carb and sugar free chocolates, cakes, pies, and sweet crackers.
MISCELLANEOUS	Approved protein supplements. Splenda® or sugar free substitute.	Flavored popcorn, nuts, spicy foods with a high fat content.	Fried foods and salty, crunchy snacks. Hard candy and white or cheese flavored crackers.

LIFETIME SUCCESS

To maintain a healthy weight and to prevent weight gain, you must develop and keep healthy eating habits. Be aware of the volume that you can tolerate and do not try to go beyond that. Frequent snacks slow down the weight loss. However, you should not go long periods without any food. You will be more prone to overeat later and fail to meet your protein requirements.

A well-balanced diet is the key to long term success. Make healthy food choices to ensure maximum nutrition and minimum volume. Try the foods in the following order for proper satiety:

PROTEIN FIRST, THEN VEGETABLES, WHOLE GRAINS LAST.

Avoid empty calories such as starches and sugars which have no nutritional value. Even though you may not always experience "dumping syndrome," too much fruit, fruit juice, sugars and soft drinks will slow down your weight loss. Some popular foods in this category are ice cream, pudding, sweetened, fruited or frozen yogurt, dried fruits, candied fruit, canned or frozen fruit in heavy syrup, 100% fruit juice, sugar-coated or sweetened cereal, sweet rolls and doughnuts,

sports drinks, popsicles, cakes, pies, cakes and cookies, jellies and regular soft drinks or lemonade. It is best to restrict them all to allow your surgery to work for you.

Introduce one food at a time in order to rule out food intolerance. Do not be afraid to try new foods, but in small amounts to start. What does not agree with you now may be more acceptable in a few more weeks. These problems eventually disappear, so do not be discouraged if they happen occasionally.

Habits Attributed with Weight Regain After Weight Loss Surgery

- **Avoid drinking with meals.** Fluid pushes food through the pouch which enables you to eat larger portions at meals. It will also increase your appetite between meals.
- **Lack of exercise.** You must incorporate regular aerobic and weight bearing exercise to your lifestyle to increase metabolism at rest.
- **Lack of sleep.** You should aim for 7 hours of uninterrupted sleep.
- **Grazing.** Avoid snacking between meals. Stick to 3 meals and 1 protein snack per day.
- **Beverages/ Liquid sweets.** Drinking alcohol and sweetened or flavored coffees, juices, or smoothies will quickly and easily provide you with unwanted calories and eventual weight gain.
- **Soft Foods.** Soft foods will not keep your pouch distended (full) until it is time for the next meal. They are usually high in refined carbohydrates, are easy to chew and digest. Plus, they are a nutritionally poor choice of calories. Example: diet pudding, custards, sugar free frozen yogurt, crackers, diet cookies, pretzels.

*Vitamins after surgery **

(Use your handout provided in the office for most updated list)

	COMPLETE MULTIVITAMIN (Centrum or Flinstones Complete)	CALCIUM CITRATE WITH VITAMIN D (UpCal D or Citracal® from website)	B12 (Nature's Bounty sublingual or dropper)	VITAMIN A,D,E,K IN DRY FORM (ensure your multivitamin has the following levels of ADEK, otherwise implement additional doses below)	IRON Avoid taking with coffee or tea Take 2 hours apart from calcium supplement (Slo-FE)
Adjustable Gastric Band	Take once a day Start first Sunday after surgery	X	X	X	X
Gastric Bypass	Take twice a day Start first Sunday after surgery	UpCal D or Citracal® Start first Sunday after surgery	1,000 micrograms Take once a week Start first Sunday after surgery	X	2 iron tablets a day each containing 50–65 mg of elemental iron (Slo-FE) or 300 mg per day iron gluconate or iron sulfate Start first Sunday after surgery
Gastric Sleeve	Take once a day Start first Sunday after surgery	UpCal D or Citracal® Start first Sunday after surgery	1,000 micrograms Take once a week Start first Sunday after surgery	X	X
Duodenal Switch	Take twice a day Start first Sunday after surgery	UpCal D or Citracal® *take with food 2 hours before or after iron Start first Sunday after surgery	1,000 micrograms Take once a week Start first Sunday after surgery	Vitamin A: (as retinol not beta carotene- look at the label) should be in the range of 10,000 IU to 30,000 IU Vitamin D: 800–2,000 IU Vitamin E: 100–800 IU Vitamin K: 120–450 micrograms Start first Sunday after surgery	2 iron tablets a day each containing 50–65 mg of elemental iron (Slo-FE) or 300 mg per day iron gluconate or iron sulfate Start first Sunday after surgery

Vitamins can be purchased at:
www.bariatricfusion.com | www.bariaticadvantage.com | www.celebratevitamins.com

PHYSICAL ACTIVITY— THE CORNERSTONE OF GOOD HEALTH

Achieving maximum health benefits from reducing weight requires you to increase your physical activity. This increase is attainable as your mobility is enhanced from the weight loss. You may benefit from sessions with a Physical Therapist who will work with you on your mobility, and advise you on managing your activities of daily living. A meeting prior surgery may help you to better prepare and sessions after surgery may help you start your recovery and long term exercise programs. Our office will provide you with a prescription as needed. 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 30 minutes per day.

Physical activity regimens should incorporate these three components:

- Aerobic/cardiovascular activity: Exercise that increases your heart rate, e.g. walking.
- Anaerobic/strength building activity: Exercise that builds muscle tissue, e.g. strength training/resistance training.
- Stretching: Flexibility exercises.

Cardiovascular exercise uses your large muscles and raises your heart rate to a level where you can still talk, but you start to sweat a little. For example, walking, jogging, swimming, and cycling are cardiovascular activities. If your goal is to lose weight, you will need to do some form of cardiovascular exercise for 4 or more days a week for 30 to 45 minutes or longer.

Benefits include reduced risk of cardiovascular disease, improved quality of sleep and alertness, improved short-term memory, increased metabolism, improved ability to use fat as energy, reduced risk of developing osteoporosis.

GUIDELINES FOR WALKING

A. WEAR GOOD WALKING SHOES—Soft soles, good arch support, good heel support.

B. DO NOT OVER DRESS—Wear layers of clothes that you can remove as you heat up during the walk.

C. WALK ON SOFT SURFACES—Dirt, grass, running track, asphalt, beach. Choose softer surfaces wherever possible as opposed to walking on concrete.

D. Swing your arms in rhythm with DEEP BREATHING.

Strength-building exercises make your muscles and bones stronger and increase your metabolism. People who lift weights or use any type of equipment that requires weights are doing strength-building exercise. If you strength train regu-

larly, you will find that your body looks leaner and you will loose 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. Benefits include improved ease of performing daily tasks such as climbing stairs and carrying heavy loads, improved body composition, increased resting metabolism and reduced risk of injury, improved posture, and improved body-image.

GUIDELINE FOR A STRENGTH TRAINING PROGRAM

A. A beginning strengthening program should consist of 6–10 exercises for the larger muscle groups. Choose from the following list of exercises:

- Chest Press, Bench Press
- Lat Pull down
- Seated Row
- Leg Press
- Squat
- Overhead Press

B. Get proper instruction before you use free weights or weight machines for the first time.

C. Emphasize SLOW AND CONTROLLED movements.

D. DO NOT HOLD YOUR BREATH. Exhale when lifting the weight; inhale when returning the weight to original position.

E. To find a comfortable exercise weight, begin with a weight where you are comfortable with 10–15 repetitions.

F. Allow 1–2 minutes between sets and exercises.

Flexibility exercises tone your muscles through stretching and can prevent muscle and joint problems later in life. Benefits include improved physical performance and ease of motion, improved coordination, increased circulation, and improved balance and posture.

GUIDELINES FOR STRETCHING

A. Do not stretch cold muscles. WARM UP using a SLOW walk or jog before stretching.

B. Stretch slowly and with control. Do not bounce.

C. Stretch ONLY to the point where you feel tightness or slight resistance. Stretching should not be painful.

D. Static stretching is most highly recommended. Hold each stretch for 10–30 seconds.

E. DO NOT HOLD YOUR BREATH during stretching. Use deep abdominal breathing when possible.

F. Increase in range of motion will be specific to those muscles/joints being stretched.

G. PAIN is an indication that something is wrong and should not be ignored.

H. Exercise CAUTION when stretching the low back and neck.

I. Stretch muscles that are tight and inflexible.

J. Stretching should be done both before and after exercise sessions to improve one's flexibility.

TEN TRICKS FOR STICKING WITH THE PROGRAM

1. Look at exercise like a prescription medication. 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. 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.
4. Find a buddy. We all need someone to budge us and make us go the extra mile, especially when it comes to exercise. Find a friend, a neighbor or personal trainer to meet you at the gym or in the park.
5. Find your rhythm. Listen to music or books on tape or meditation while you exercise. With the right music to occupy your brain, 30 minutes will not seem so long.
6. Participate in group sports. Participating in a group activity increases the chances that you will stick to it. Choose water exercise, yoga, or stretching classes at 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 do not put exercise into your daily schedule, most likely you will do everything but exercise. Plan in baby-sitters. Schedule specific activities on specific days, like walking 20 minutes on Monday, yoga class on Tuesday, etc…
9. Use a workout log. Write down the exercise you do and see how you have improved. Write down the number of repetitions, the weight used, the length of walk, the time, etc.
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.

SOCIAL AND EMOTIONAL CHANGES

EMOTIONAL CONSIDERATIONS

The range of emotions you experience following surgery may include denial, anger, bargaining, depression, and finally, acceptance. Feelings of sadness and crying episodes can be common occurrences. Adapting to the changes taking place in your body and in your relationship to food can take many months. Expect to have ups and downs as the weeks go by.

Your adjustment and acceptance will also be eased by the realization that bariatric surgery, with resultant weight loss, will by itself not solve your personal or relationship problems. 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 attended to. Try to be as positive as possible. As new challenges pop up, recognize them and develop a problem solving approach.

In the past, one of the best methods for you to cope with life stress may have been for you to eat. This method will no longer be useful. Replacement methods for coping will need to be learned, but this will take time. Use a journal to get you started.

COUNSELING

Emotional 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 bariatric surgery.

FAMILY AND FRIENDS

You can expect your family and friends to have variable 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. Friends and family may have become secure in your obesity and will have difficulty adjusting to the new body you are developing. 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. Your main responsibility is to care for yourself. Others are responsible for their own feelings and actions. Hopefully, most close family members and friends will eventually adjust.

THE INTERNET

Group support and being connected to other patients is vital to a successful surgical result. The Internet is a way to help fill the void between group meetings. *Please, be cautious about what you read. We urge you to ask us directly if you have any questions.*

GROUP MEETINGS

Group meetings provide peer support, allow you to learn about the surgery first hand from others who have had surgery, let you share your experiences, and provide periodic guest speakers to expand your knowledge on obesity surgery-related topics. These healthy living support groups are a wonderful opportunity to make new friends and be with people who share what you are experiencing.

PLAN AHEAD FOR CHALLENGING SITUATIONS

Overeating at parties can be tempting. Snacking is considered a bad habit after this surgery so make "party eating" one of your meals for the day, but choose the healthiest foods to eat. Never munch directly from the bowl, instead place the food directly on your napkin or small plate, and take only the food you are planning to eat. Remember, you cannot eat more than a small child's portion now.

Look for the protein items first and supplement with the other choices after you have eaten some protein.

Slow down your eating so you will really enjoy your food and will not feel deprived as you finish your small portion. A party is not a good place to try a new food for the first time. You do not want to end up sick or sleepy and have to go home ahead of schedule. Take time at functions to socialize more and enjoy the people present.

PREPARE YOURSELF

The greater number of events, places, and situations that you associate with food, the more often you will feel like eating or perhaps feel deprived that you can no longer eat like you once did. Learn to focus on other things besides the food. You should eventually feel a sense of freedom from the drive to eat. Use this opportunity to find new and renewed enjoyments in life.

Learn to eat more slowly and deliberately. Allow your body to feel full so you can digest your food better. When you eat too fast, you could overeat or not get your food pulverized enough, which could cause you to vomit. Old habits will have to be worked on until your new slow eating is your normal style of eating.

Remember, it takes twenty (20) minutes for your body to realize fullness.

TALK ABOUT IT

Use of communication tools can minimize conflicts and provide healthier, happier relationships. Whenever you have a drastic lifestyle change (your new eating style, exercise habits and new appearance), your relationships will change too. To help them change for the better may require some vigilance on your part. Be open when something bothers you by communicating with those around you.

It will also help if you share your experience with your significant other and together develop your goals and plan of attack regarding your compliance issues (exercise, follow-up appointments, vitamin purchases, etc.). Support groups help tremendously with these situations. Spouses are welcome and may have a better understanding of what you are experiencing.

The commitment to have surgery is frequently a very private and personal decision. Some people do not wish to share this choice with others. Soon most

people will notice your weight loss. Prepare an answer in advance to help you out of an uncomfortable situation.

Suggested remarks are:

"I'm exercising regularly, eating less and drinking lots of water."

"I've decided to take better care of myself and change some old habits."

BODY IMAGE

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

- Take a picture of yourself every few weeks during your weight loss and compare the changes.
- Try on clothes in a smaller size. You'll be surprised to see how quickly you are changing sizes.
- Have someone point out a person in a public place who is about your current size so you have a new frame of reference.
- Take measurements of yourself every few weeks and record the results.
- Save an outfit from your pre-operative size and try it on every few weeks or whenever you need a lift.
- Accept compliments graciously. Do not minimize or qualify your weight loss. You have worked hard for the compliment. Simply say, "Thank you."

Points to Remember

- Remember to focus on your internal assets, accomplishments, and abilities. We are not just our bodies.
- Do not judge others based on their personal appearance, and do not allow others to judge you based on your body size.
- Take time out for yourself, and your body. Listen to your favorite music, read, start a garden, chose a hobby to enhance your quality of life with your personal style.
- Keep a journal of your thoughts, feelings, and dreams, which will assist you in targeting your accomplishments. It feels good when dreams and goals are met. Journaling your weight loss experience may help you appreciate it again down the road.
- Communication is the key for maintaining close, healthy relationships. Share yourself with those around you. Allow others to share their feelings also.
- Support groups are a great way to share common experiences, meet new friends and problem solve together—many people are going through the same changes.

RELAXATION TECHNIQUES

Relaxation techniques provide relief from stress. Take time out for yourself each day. Soft music, a walk alongside the shore, and watching your favorite comedy, are just a few ways to relieve stress.

It has been clinically proven that exercise is a great stress reducer. It not only helps with toning and cardiovascular fitness, it will also improve how you feel about yourself.

GLOSSARY OF RELATED TERMINOLOGY

Adjustable Gastric Band	Implantable device for gastric restriction.
Anastomosis	Surgical connection between two structures.
Bariatric	Pertaining to weight or weight reduction.
Biliopancreatic Diversion	A surgical procedure for weight loss that combines a modest amount of gastric restriction with intestinal malabsorption.
Body Mass Index (BMI)	Body weight in kilograms divided by the height in meters squared used as a practical marker to assess obesity. An indicator of optimal weight for health and different from lean mass or percent body fat calculations because it only considers height and weight.
Cholecystectomy	Surgical removal of the gallbladder.
Co-Morbidity	Two or more diseases or conditions existing together in an individual. Related illnesses (i.e., arthritis, hypertension) or disabling conditions related to clinically severe obesity or obesity-related health conditions.
CT Scan	Body scan x-ray.
Dehydration	Occurs when the amount of water in the body falls below normal (caused by losing fluid, not drinking enough water or fluids, or both), which, in turn, disrupts the balance of sugars and salts (electrolytes) in the body. Vomiting and diarrhea are common causes.
Dumping Syndrome	Uncomfortable feeling of nausea, lightheadedness, upset stomach, diarrhea associated with ingestion of sweets, high calorie liquids or dairy products.
Duodenum	First 12 inches of small intestine immediately below stomach. Bile and pancreatic juices flow into duodenum through ducts from liver and pancreas respectively.
Electrolytes	Chemical elements found in the blood stream and body tissues.
Endoscopy	Examines parts of gastrointestinal tract by means of long, slender, flexible, fiber optic instrument.
Enzymes	Complex substances produced by the body which facilitate chemical processes.
Esophagus	Tubular organ connecting oral pharynx and stomach; responsible for swallowing.

Gastric Bypass	Operation designed to make a portion of the stomach nonfunctioning and to reroute the small intestine.
Gastrointestinal	Pertaining to stomach or intestine.
Hernia	A weakness in the abdominal wall resulting in a detectable bulge.
Herniation	Process in which a hernia is formed.
Ileum	Ten feet of small intestine which is the third and last part; responsible for absorption.
Jackson-Pratt drain	Soft plastic drain effective in excavating blood and other body fluids.
Jejunum	Ten feet of small intestine which is second and middle part; responsible for digestion.
Laparoscopy	Method that allows the doctor to see and treat intra-abdominal problems with long, fiber optic instruments.
Magnetic Resonance Imaging (MRI)	MRI uses radio frequency waves to provide visualization and quantification of fat. The sharp image contrast of MRI allows clear separation of adipose tissue from surrounding nonlipid structures.
Malabsorption	Abnormal or impaired absorption of food products, vitamins, minerals, iron.
Obesity	The condition of having an abnormally high proportion of body fat. Having to do with excessive weight or adipose tissue.
Obstruction	Narrowing of an anastomosis or segment of gastrointestinal tract which blocks normal passage of food or waste materials.
Protein	A class of compounds composed of linked amino acids that contain carbon, hydrogen, nitrogen, oxygen, and sometimes other atoms in specific configurations.
Pyloric Valve	Outlet of stomach; the body's natural flow valve. May lead to better long term weight control.
Roux-en-y Bypass	Operation designed to make a portion of the stomach nonfunctioning and to reroute the small intestine.
Strictures	Narrowing of anastomosis or section of intestine; often related to scarring or ulcers.
Ulcer	Erosion of lining of stomach or jejunum.
Upper GI Series	Method of radiographic visualization of stomach and upper small bowel by means of ingested radiopaque matter.
Vertical Banded Gastroplasty (VBG)	A type of operation to treat clinically severe obesity. Reshapes and restricts the stomach.

ADDITIONAL RESOURCES

NORTHWELL LENOX HILL HOSPITAL

www.nycbariatrics.com
1-888-WHY-WEIGHT

Please check out the extensive video gallery
on our website for more information.

AMERICAN SOCIETY FOR METABOLIC AND BARIATRIC SURGERY

www.asmbs.org
352-331-4900

ACADEMY OF NUTRITION AND DIETETICS

www.eatright.org
800-877-1600

NATIONAL INSTITUTE OF DIABETES AND DIGESTIVE AND KIDNEY DISEASES

www.niddk.nih.gov
301-496-3583

THE FEDERAL CONSUMER HEALTH INFORMATION GATEWAY: HEALTHFINDER

www.healthfinder.gov

OBESITYHELP.COM

Making the Journey Together
www.obesityhelp.com

OBESITY ACTION COALITION

www.obesityaction.org

CONGRATULATIONS!

You have just completed the first step in your path to better health. Once the surgery is done, the hard part will begin. We will work closely with you to prepare you for the steps ahead. You should always remember that you have made a choice to improve your health, and the operation is just the beginning. There will be many changes that you will go through over the next few months, and you will gradually feel better and better. Remember to enjoy the new lease on life that this process will give you and take pride in your success.

We encourage you to come back and share your joy with us.

FREQUENTLY ASKED QUESTIONS

1. Why will surgery work when nothing else has?

When we began performing bariatric surgery it was mainly to make the stomach smaller and we believed that the impact was mechanical—make the stomach small and people will be forced to eat less. Now we have learned that there are many reasons that surgery works. There are hormonal and neurologic changes that are induced by surgery when following the proper diet. They cause you to be less hungry and feel full faster. Additionally we have learned that obesity and diabetes are inflammatory diseases. When severely obese individuals attempt weight loss, the body resists. As a result, they frequently lose a nominal amount and then regain more. This is called the Set Point Theory. Surprisingly, surgery seems to change your set point followed by a diet and exercise plan. This allows a greater probability of lasting weight loss. Bariatric surgery does not just change the stomach. It changes the interaction between the gut and the brain, it changes the hormones released by the stomach and intestine, it improves insulin sensitivity, and changes how the liver handles fat and glucose with eating whole and all natural foods.

2. How long is the process?

All insurance companies have different requirements, so call your provider on the back of your card to familiarize yourself with whatever documents you will need. Our surgical coordinators in the office will meet with you after your initial consult with the surgeon and explain in more detail to assist you in the process. The process can be a couple of weeks to a couple of months depending on your insurance plan. Some plans may require you to follow a physician supervised diet for six months before you are approved for surgery, so please be sure to bring and history of weigh ins. You will also have to see both our nutritionist and our psychologist in our office. We suggest making these appointments in advance so that you do not further delay your surgery beyond the insurance requirements.

3. How long is surgery?

The Sleeve Gastrectomy can take anywhere from 40 minutes to over an hour. The Modified Duodenal Switch can take up to two hours to perform. A lot of the time that it takes depends on whether or not you have had surgery before, and if there is any scar tissue, or "adhesions," which can prolong the procedure.

4. How long will I be in the hospital?

You will be in the hospital anywhere from 1–3 nights. It is rare for patients to stay beyond three nights. There are a lot of factors that go into the decision making process, as to whether or not a patient is safe to go home. In general, the most important factor is whether or not the patient feels comfortable and is ready to go home. With that being said, we have gotten to a place where the majority of our patients are ready to leave the hospital the day after surgery.

5. When can I go to work?

If your job does not involve any heavy lifting or strenuous activity, you can return to work in 1 week. If your job is physically demanding, you may need more time based on your recovery.

6. When can I exercise?

Once you are off the pain medication and you feel you are drinking with ease and there is no concern for dehydration, you can start light cardio exercise. We advise waiting four to six weeks before any heavy weight lifting or core abdominal exercises such as sit-ups.

7. Can I get pregnant?

Yes. We advise waiting at least 12–18 months after surgery before becoming pregnant. The reason for this is:

- We want to optimize the amount of weight lost in the first year, as this is a critical time to be able to maximize the weight lost and the benefits of surgery
- To minimize the risk of any potential adverse effects from any nutritional deficiencies that may develop in the first year

8. What happens to the excess skin?

It is difficult to be able to determine who will have excess skin. It has to do with the ability of your subcutaneous tissues to recoil. We usually recommend waiting until your weight stabilizes for a couple of months or about one year out of surgery before considering any skin removal procedures with a plastic surgeon.

9. What is my diet going to be and what supplements do I need to take?

You will be advancing your diet slowly over the few weeks following surgery. In the nutrition class, you will learn about the different stages of the diet starting from the day after surgery until five weeks postop. Once you transition to whole, natural foods, we advise maintaining a high protein and high fiber diet, low in carbohydrates. Depending on the surgery you have,

you will also need to take different vitamins. The Sleeve Gastrectomy requires a multivitamin daily, b12 once a week and calcium citrate twice a day. The malabsorptive procedures require additional vitamins that are higher in ADEK. These vitamins are needed for life.

10. What is the follow-up like after surgery?

You will need to see us one to two weeks after surgery for your initial postop visit. You will also need to see us 6 weeks, 3, 6, 9 and 12 months after surgery and annually or bi-annually thereafter. You will also need routine blood work at least once a year after surgery.

NOTES