

Northern Light Surgical Weight Loss

Dear Weight Loss Surgery Patient,

Congratulations on your decision to pursue weight loss surgery. We realize that this is a big decision that requires a great deal of thought, commitment, and education. We know that to be successful, surgery requires the efforts of a team approach and we have worked hard to put together a program that we are very proud of. We have been accredited at the highest level through the American College of Surgeons and the American Society for Metabolic and Bariatric Surgery.

Through Northern Light Surgical Weight Loss, you will have an opportunity to attend our free online orientation class that covers the A to Z's of weight loss surgery. We also offer an online support group the 3rd Tuesday of every month to further assist you in preparing for surgery. We encourage you to come to as many support groups as possible as our surgeons will attend these meetings so that you can get your important questions answered.

You can find us online at: www.northernlighthealth.org/SurgicalWeightLoss to learn even more and register to get our quarterly newsletter and review past editions.

Once you have completed an information session you will have the opportunity to meet with a dietitian, physical therapist and clinical psychologist, all of whom specialize in weight loss surgery. Then if appropriate you will be scheduled to see the surgeon and we would then petition your insurance company to get you authorized. This process can take several months. We look forward to meeting with you and continuing to answer your questions.

Best of Luck,

Sincerely,

Dr. Michelle Toder

Dr. Matthew Sharbaugh



Northern Light Surgical Weight Loss

Welcome to Northern Light Surgical Weight Loss—an accredited program since 2005 with the unified Metabolic and Bariatric Surgery and Quality Initiative Program (MBSAQIP) an accrediting body of the American College of Surgeons.

My name is Sara Stanton, manager of Northern Light Surgical Weight Loss. As a registered, licensed dietitian who previously worked in the inpatient setting helping post-operative bariatric patients within the hospital, it is my job to help you through the program. Feel free to contact me if you have ANY questions or concerns about your care.

I am available Monday through Friday by phone at 207.973.4940 or by e-mail slstanton@northernlight.org

I look forward to working with you.

Sincerely,

Sara Stanton, MS, RD, LD 207.973.4940





Bariatric Surgery Center Network Accreditation



Northern Light Surgical Weight Loss has been accredited as a Comprehensive Accredited facility by the American College of Surgeons (ACS). This designation means that we have met the essential criteria that ensure we are fully capable of supporting a bariatric weight loss surgery care program and that its institutional performance meets the requirements outlined by the ACS BSCN Accreditation Program. Our program has been accredited since 2005—the earliest that accreditation became possible.

Established by the American College of Surgeons in 2005 in an effort to extend established quality improvement practices to all disciplines of surgical care, the program provides confirmation that a bariatric surgery center has demonstrated its

commitment to providing the highest quality care for its bariatric weight loss surgery patients. Accredited bariatric surgery weight loss centers provide not only the hospital resources necessary for optimal care of morbidly obese patients, but also the support and resources that are necessary to address the entire spectrum of care and needs of bariatric patients, from the pre-hospital phase through the postoperative care and treatment process.

There are four categories of accreditation for inpatient facilities and one for outpatient surgical care facilities. Each category has specific criteria that must be met by a facility seeking that level of accreditation. Each hospital undergoes onsite verification by experienced bariatric surgeons, who review the center's structure, process, and quality of data using the current ACS Bariatric Surgery Center Network Accreditation Program Manual as a guideline in conducting the survey. Because high-quality surgical care requires documentation using reliable measurements of outcomes, accredited bariatric surgery weight loss centers are required to report their bariatric weight surgery outcomes data either to the American College of Surgeons National Surgical Quality Improvement Program (ACS NSQIP) or the College's Database, using a Web-based data entry system.

In the United States, more than 11 million people suffer from severe obesity, and the numbers continue to increase. Obesity increases the risks of morbidity and mortality because of the diseases and conditions that are commonly associated with it, such as type II diabetes, hypertension, and cardiovascular disease, among other health risks. At the present time, weight-loss surgery provides the only effective, lasting relief from severe obesity. Therefore, the ACS believes it is of utmost importance to extend its quality initiatives to accrediting bariatric surgery centers so that it can assist the public in identifying those facilities that provide optimal surgical care for patients who undergo this surgical procedure.

The American College of Surgeons is a scientific and educational association of surgeons that was founded in 1913 to raise the standards of surgical education and practice and to improve the care of the surgical patient. Its achievements have placed it at the forefront of American surgery and have made the College an important advocate for all surgical patients. The College has more than 74,000 members and is the largest organization of surgeons in the world.

Northern Light Surgical Weight Loss

Northern Light Surgical Weight Loss formed in 2002 and was first recognized as a Center of Excellence with the American Society for Metabolic and Bariatric Surgery in 2005. We have maintained the highest level of accreditation since that time through the American College of Surgeons.

Through nutrition, rehabilitation, and psychology, Northern Light Surgical Weight Loss has provided a thorough, multidisciplinary approach to bariatric surgery. We offer information, education, and support before, during, and after surgery. Our team consists of experienced surgeons, anesthesiologists, registered dietitians, a specialized nursing staff, physical therapists, pulmonologists, licensed counselors, clinical psychologists, and equipment to meet our patients' needs. We partner with you to perform a complete evaluation to help you decide if surgery is the right choice for you.

Michelle Toder, MD, FACS, FASMBS Bariatric and General Surgeon, Northern Light Surgery Medical Director, Northern Light Surgical Weight Loss Clinical Lead, Computer Assisted Surgical Program

Dr. Toder has been a champion of weight loss surgery in Maine since 1997. She brought minimally invasive laparoscopic weight loss operations to our community in 2002 and taught this procedure throughout New England. Beginning in 2005 she pioneered bariatric surgery on a robotic platform and Northern Light Eastern Maine Medical Center became the first robotic epicenter in the country. She continues to lecture and to teach robotic surgical techniques locally, regionally, and globally. Bariatric surgery of all types, performed safely and on minimally invasive platforms, has been her mission and passion for nearly two decades. In addition to weight loss surgery, she performs many general surgery procedures including cholecystectomy, hiatal hernia repair, and anti-reflux operations. She is a board-certified surgeon and a member of the American College of Surgeons, the American Society for Metabolic and Bariatric Surgery, the New England Surgical Society and Clinical Robotic Surgical Association. She has long ties to Maine, receiving her undergraduate degree from Colby college, Dr. Toder has lived in Orono and raised her family here for more than 20 years. She continues to advanced and effective technology to patients at Northern Light Eastern Maine Medical Center.

Matthew Sharbaugh, DO

Bariatric Surgeon, Northern Light Surgical Specialists

Dr. Sharbaugh is a fellowship trained robotic bariatric surgeon. He completed an entire year working solely on advanced robotic techniques at Albany Medical College. After completing his undergraduate education at Hamilton College and a medical degree at the University of New

England. His surgical training was completed at MedStar Georgetown University Hospital-Washington Hospital Center. Dr. Sharbaugh is a Board-Certified surgeon who strives to stay ahead of the curve of minimally invasive technologies. He offers Sleeve Gastrectomy, Gastric Bypass, Single Anastomosis Duodenal Switch and numerous revisional options. Dr. Sharbaugh is one of the few surgeons in the country to offer incisionless endoscopic gastric bypass revision. This technique passes an instrument through the mouth and allows patients to undergo revisional surgery without new incisions on the abdomen. In addition to his bariatric expertise, Dr. Sharbaugh performs advanced minimally invasive robotic hernia repairs, acid reflux surgery, hiatal hernia repairs, gallbladder surgery and advanced endoscopy. He is a published author on both robotic hernia and robotic bariatric surgery. In his spare time, you may find Dr. Sharbaugh fishing and hiking in and around the Bangor area.

Sara Stanton, MS, RD, LD Northern Light Surgical Weight Loss Manager

Sara completed her bachelor's and master's degrees in Food Science and Human Nutrition at the University of Maine in Orono. During her dietetic internship, Sara had the opportunity to train with the outpatient dietitians at Northern Light Surgical Weight Loss where she found her passion for the program. She has worked as an inpatient clinical dietitian for more than seven years at Northern Light Eastern Maine Medical Center providing medical nutrition therapy to a variety of patients including intensive care, surgical, cardiac, and oncology populations. During this time, she worked with many post-operative bariatric patients, providing them with education and support before being discharged home. Sara joined the Surgical Weight Loss Team as the program manager in the Fall of 2021. She helps with the process of weight loss surgery, including obtaining health information from primary care physicians and other healthcare professionals. She provides answers to patient's questions and help to highlight all aspects of the program. She also helps to facilitate support group sessions. She is available for support and advice throughout the entire surgical process. In her spare time, she enjoys spending time with family, cooking, and being outdoors as much as possible

Northern Light Rehabilitation Center

Patients meet with a physical therapist to plan an activity program that readies the body for surgery which helps to minimize surgical risks. After surgery, and when the surgeon says it is ok to participate in an activity program, our rehabilitation therapists help create a program based upon each individual patient needs. Surgical Weight Loss patients are offered free use of the gym, located at the Northern Light Health, 905 Union Street, Suite 9, Bangor for 3-months after weight loss surgery, once their healthcare teams surgically clear them for this kind of activity.

Tama Fitzpatrick, RD, CDE Clinical Dietitian

Tama completed her education at the University of Maine in Orono and at Beth Israel Medical Center in Boston. She became a Clinical Dietitian in 2003 and worked as the Clinical Nutrition Manager a St. Joseph Hospital in Bangor for more than five years. She is a member of the American Society for Metabolic and Bariatric Surgery and has been providing nutrition care to a multitude of patients since 2003. Tama's role is to provide nutrition counseling and support on the pre and postoperative meal plans. After surgery she works with patients to evaluate daily food intake, monitor weight and body composition changes, offers metabolism testing to assess target calorie consumption and monitors overall nutritional status.

Valerie Curtis, MS, RD, LD Clinical Dietitian

Valerie completed her bachelor's and master's degrees at the University of Maine in Orono. During her dietetic internship, she had the opportunity to train with dietitians involved in Northern Light Surgical Weight Loss on both an inpatient and outpatient basis. She worked as a clinical dietitian at St. Joseph's Hospital in Bangor for more than two years, where she provided a wide variety of patients with nutrition care and education. Valerie joined Northern Light Surgical Weight Loss in November of 2012 and is looking forward to helping patients achieve the lifelong dietary and behavior changes necessary for safe and successful weight loss. In her free time, Valerie enjoys spending time with her family, cooking, camping, and reading.

Andrea Saquet, MPH, RD, LD Clinical Dietitian

Andrea has joined Northern Light Surgical Weight Loss in February 2015. Andrea graduated from the University of Massachusetts at Amherst with her Bachelor of Science in Nutrition in 2005 as well as a master's in public health nutrition in 2014. During her career as a registered dietitian, she has provided patient care and nutrition education in a variety of settings. In her free time Andrea enjoys cooking, cross-country skiing, hiking, biking, and spending time with family and friends.

Bryan Fritzler, PhD Clinical Psychologist

Dr. Fritzler is a licensed psychologist working at Northern Light Behavioral Medicine and Northern Light Surgical Weight Loss. He provides consults for the program, conducting inpatient and outpatient psychological and cognitive evaluations and provides psychotherapy services. He received his doctoral degree from the University of Maine and a bachelor's degree from the University of Kansas. He completed an internship at Boston VAMC/Tufts. Dr. Fritzler works with patients to prepare them mentally for the changes brought on from surgery by

addressing social support, expectations, and overall weight loss surgery knowledge. Dr. Fritzler has been working with the program since 2004.

Nina Boulard, PhD Clinical Psychologist

Dr. Boulard is a licensed psychologist working at Northern Light Surgical Weight Loss and Northern Light Behavioral Medicine. She received her doctoral degree from the University of Maine and completed her post-doctoral internship at the Boston VA Medical System/Harvard Medical School. She completed her undergraduate training at Yale University. Dr. Boulard consults with Northern Light Surgical Weight Loss, conducts psychological evaluations, and provides psychotherapy services. She helps patients prepare for changes they may experience after surgery by examining their expectations, motivation, support system, and overall knowledge of weight-loss surgery. Dr. Boulard joined the program in 2012.

Asia Kronholm, PhD Clinical Psychologist

Dr. Kronholm is a licensed psychologist working at Northern Light Surgical Weight Loss and Northern Light Behavioral Medicine. She received her doctoral degree from the University of Maine, where she continues as an associate clinical supervisor for doctoral psychology students. She completed her post-doctoral internship at the Greater Hartford Clinical Psychology Internship Consortium. Dr. Kronholm conducts pre-surgery evaluations to help identify patient's strengths and areas in need of support to enhance post-surgery outcomes. In addition to assessments, she provides therapy services to prepare patients mentally for the changes associated with surgery and/or making health-related behavioral changes (diet, exercise, etc.). Dr. Kronholm joined the program in 2016.

Jonathan Borkum, PhD Clinical Psychologist

Dr. Borkum is a licensed psychologist with 20 years of experience in the treatment of pain and headaches. He earned a PhD in Psychology from the University of Maine, where he continues as a faculty associate. He has also taught a postdoctoral class at the Massachusetts School of Professional Psychology in Boston and has been providing bariatric evaluations for Northern Light Surgical Weight Loss since 2002.

David Meyer, PhD Clinical Psychologist

Dr. Meyer is a licensed psychologist specializing in Cognitive Behavioral Therapy (CBT) and empirically based treatments, including Prolonged Exposure (PE), Cognitive Processing Therapy (CPT), and Interpersonal Therapy for Depression (IPT), and Integrated Behavioral

Couples Therapy (IBCT). His focus is PTSD/trauma-related disorders, depression, anxiety, adjustment, and couples' therapy. Dr. Meyer completed his internship at the Salem VA Medical Center in Virginia and post-doctoral training with Boston University and the VA Boston Healthcare System. He received his doctorate in Clinical Psychology from the University of South Dakota with a specialization in Disaster Mental Health. Dr. Meyer has published articles and co-authored a book chapter related to assessment and treatment of trauma-related disorders and presented on trauma psychology topics internationally. Dr. Meyer joined the PTSD Clinical Treatment Team at the Togus VA Medical Center in 2009, where in addition to his clinical duties he served as a member of the Dartmouth Committee for the Protection of Human Subjects (VA Maine Medical Center's IRB of record) and supervised clinical psychology interns and residents. He has presented throughout the medical and law enforcement communities on issues related to PTSD. Prior to his psychology career, Dr. Meyer spent several years as an EMT/Firefighter for the U.S. Forest Service as an engine foreman and helicopter rappeller. In his free time, he enjoys canoeing/kayaking, hiking, raising chickens and making maple syrup.

Chantal Mihm, PsyD Clinical Psychologist

Dr. Mihm is a licensed psychologist specializing in the treatment of posttraumatic stress disorder (PTSD) anxiety, and depression. She utilizes evidence-based treatments with an emphasis in cognitive-behavioral therapy (CBT), including the trauma-focused treatments of Prolonged-Exposure (PE) and Cognitive Processing Therapy (CPT). Dr. Mihm received her undergraduate degree from Colby College and her doctoral degree from Nova Southeastern University. She completed her internship at Spokane Mental Health Center in Washington State focusing on general mental health issues including domestic violence, grief/loss, suicide prevention, and kidney transplant evaluations for Sacred Heart Medical Center. Dr. Mihm worked with the VA Hospital in Palo Alto, CA from 2001-2006 as a Clinical Staff Psychologist on a psychiatric inpatient unit, also serving as a Clinical Affiliated Instructor with Stanford University. In 2006, she transferred to the VA Maine Healthcare System, returning to her Maine roots, serving as the Team Leader for the PTSD Program and PTSD Clinical Team until 2013. Dr. Mihm has presented throughout the medical and law enforcement communities on issues related to PTSD. She has been providing bariatric evaluations for Northern Light Surgical Weight Loss Program since 2015.

Danielle Lawson, BSN, RN-BC

Inpatient Bariatric Nursing Manager, Merritt 3 Surgery

Danielle completed her bachelor's degree in nursing at the University of Maine and began work at Northern Light Eastern Maine Medical Center in 2003. She holds an American Nurses Credentialing Center certification. She assists with managing high quality care for a 52-bed unit where bariatric surgery patients stay after surgery. In her spare time, she enjoys all

outdoor pursuits including camping, fishing, motorcycle rides, four wheeling and time in nature with her spouse and dogs.

Jude Tardy, PA-C Physician Assistant, Surgical

Jude Tardy, PA-C first joined Northern Light Surgery in 2000. He received his undergraduate degree from Rocky Mountain College in Montana and his graduate degree from the University of Nebraska in Omaha, Nebraska. His introduction to medicine began as a medic with the United States Air Force. Following an honorable discharge, he attended PA school in Billings, Montana. He is a board-certified physician assistant and has extensive experience and training in robotic and minimally invasive surgery to include general, bariatric, complex oncology, colorectal and urologic procedures. Mr. Tardy is a member of the American Academy of Physician Assistants and Downeast Association of Physician Assistants. He is originally from northern Maine and currently resides in Bangor with his wife and two sons.

Anna Welcome, MD, ABOM

Dr. Anna Welcome joined our program in January 2021 as a Bariatrician and Director of the Medical Weight Management Program. Dr. Welcome participated in a pre-med program at University of North Carolina at Wilmington and earned her medical degree from East Carolina University - Brody School of Medicine in North Carolina. Dr. Welcome has completed an Internship and Residency in Obstetrics and Gynecology from the University of Rochester - Strong Memorial Hospital, Highland Hospital in New York. Board certified in both Obesity Medicine, and Obstetrics and Gynecology, Dr. Welcome specializes in truly understanding the unique challenges patients with obesity face and partners with patients to manage their individualized weight loss plans. Dr. Welcome believes patients should have all the tools at their disposal to help them feel better, to reach their weight goals and live healthier lives.

Marianne Rivera, ACNP

Marianne Rivera joined the Medical Weight Management team in November of 2020. Mari Anne earned her Bachelor of Science in Nursing Practice from Salve Regina University in Newport, Rhode Island and her Master of Science from the University of South Alabama in Mobile, Alabama. She has most recently been employed at the Katahdin Valley Health Center in Houlton, Maine as a Nurse Practitioner. Mari Anne has a passion for nutrition and helping patients reach their weight loss goals. This weight loss team provides long-term bariatric care focused on maximizing weight maintenance and minimizing complications associated with weight-loss surgery.



Is Surgical Weight Loss Right for You?

Weight loss surgery is sometimes the best option for people who are severely obese and cannot lose weight by traditional means or who suffer from serious obesity-related health problems. The surgery promotes weight loss by restricting food intake and, in some operations, interrupting the digestive process. The decision to undergo weight loss surgery cannot be taken lightly. While this procedure can be a tool for life-changing weight loss, it also requires your commitment to permanent lifestyle changes, including maintaining a proper diet and participating in regular exercise.

Our team of experienced surgeons, registered dietitians, specialized nurses, physical therapists, and psychologists can help determine if surgery is the best choice for you. Together, we'll review your medical history, your past experiences with weight loss and gain, and other important factors.

If you can answer yes to the following questions, surgical weight loss at Northern Light Eastern Maine Medical Center might be an option for you:

- Are you: 100 or more pounds overweight, with a body mass index greater than or equal to 40; or, 75 pounds overweight with a body mass index of 35-39.9, and other obesity-related health problems?
- Have you tried unsuccessfully to lose weight through a well-balanced diet and exercise?
- Are you 18-60 years old? (61-65 years old will be considered on a case by case basis.)
- Are you a non-smoker?
- Do you have a strong willingness to lead your weight loss effort by actively participating in long-term follow up and maintenance of a proper diet and regular exercise?

First Steps

- 1. **Contact your primary care provider:** Contacting your primary care provider creates an opportunity to discuss initial concerns, determine your body mass index, and obtain a referral to a surgical weight loss program.
- 2. **Contact your health insurance provider:** You need to contact your health insurance provider to confirm weight loss surgery is a covered benefit under your plan. Make sure to ask if there are any specific criteria a surgical weight loss program must achieve in order to qualify under your plan. If your insurance does not cover weight loss surgery, you may contact our program for more information on self-paying for surgery.
- 3. Choose a surgical weight loss program that is right for you: Although there are many options, not all programs offer the same evaluation, surgical options, quality, and post-surgery support. The questions on the opposite side of this sheet can be a good starting point when evaluating surgical weight loss programs.

Questions to ask when evaluating surgical weight loss programs

Is your program accredited?

Surgical weight loss programs that are accredited meet very high program standards, have established track records on patient safety, and consistently deliver quality care. Northern Light Surgical Weight Loss has achieved the highest level of accreditation with the American College of Surgeons.

What level of experience does your program offer?

Established programs and experienced surgeons offer patients safe, high quality care. All programs you consider should be able to provide current quality data for comparison. Northern Light Eastern Maine Medical Center has been offering surgical weight loss for more than 30 years. Since 2004, we have performed nearly 300 cases each year, double the amount required for an accredited program. Our quality data is available online at northernlighthealth.org/swl.

What types of weight loss surgery do you offer?

There are different kinds of weight loss surgery, and each offers its own benefits and challenges. Northern Light Eastern Maine Medical Center was the first program in Maine to offer the choice of bypass, banding, and sleeve gastrectomy options. Since 2010, 80-90% of weight loss surgeries at EMMC have been performed laparoscopically with robotic instrumentation. This method offers greater benefits for more patients and results in decreased risk of complications and quicker recovery times.

What do you offer for pre and post-surgery care?

Surgical weight loss is so much more than the procedure itself. It's important to find a program that offers a comprehensive, multi-disciplinary approach to weight loss. EMMC's comprehensive approach begins before patients are even accepted into our program. People interested in our program attend a free educational class where they receive a comprehensive overview of our approach to weight loss surgery. At this time, prospective patients also attend a weight loss surgery support group so they can develop an understanding of life after surgery.

Before surgery, patients participate in an extensive evaluation to help determine if surgical weight loss is the right choice for them. This evaluation includes meetings with a dietitian, physical therapist, psychologist, surgeon, and other specialists as needed.

We understand that post-surgery support is a key to successful weight loss for our patients. We offer our patients frequent follow-up appointments with their surgeon and dietitian, body composition testing and measurement of metabolism, monitoring of lab work to prevent deficiencies, free use of our rehab gym for three months, ongoing free monthly support group meetings, and newsletters for educational and emotional support.

For more information about Northern Light Surgical Weight Loss, please call 207.973.6383 or visit northernlighthealth.org/swl.

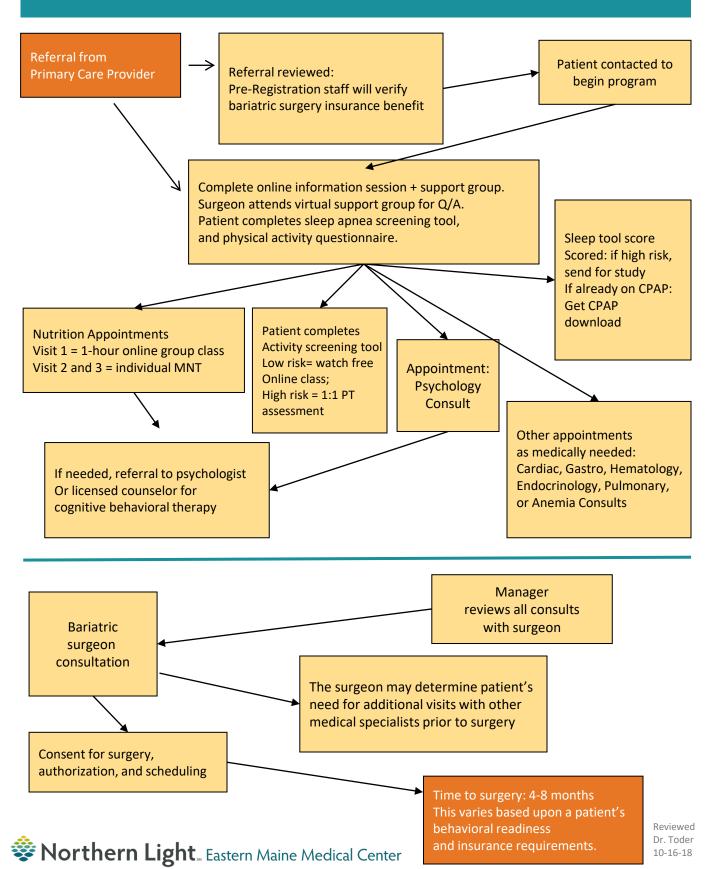


Finding the Right Surgeon for You:

Surgeon	Began Weight Loss Surgery	Age limits*	BMI Limits**	Performs revisions of prior weight loss surgeries?	Gastric Bypass	Adjustable Gastric Band	Sleeve Gastrectomy
Dr. Michelle Toder*	1997	18-65	35-60*	Yes	Yes	Yes	Yes
Medical Director Northern Light Surgical Weight Loss			Adjustable Gastric Band < 50 BMI				
Dr. Matthew Sharbaugh Northern Light Surgical Specialists	2017	18-65	35-60*	Not currently	Yes	Yes	Yes
			Adjustable Gastric Band ≤ 50 BMI				

^{*}For patients with a higher body mass index (BMI) than 60, they will still be encouraged to begin the program by meeting with Dr. Toder to determine any required weight loss goals while completing the program.

Steps to Weight Loss Surgery



Gastric Bypass Surgery: How the Surgery Works:

The Roux-en-Y gastric bypass surgery works in three ways to help you to lose weight and improve your health and quality of life:

- Restriction: The stomach is changed from the size of a football into the size of a small plastic Easter egg or a lime. This "pouch" will initially hold only 1-2 ounces of food. The small pouch will limit your food intake, make you feel full quicker and stay full for a longer period of time.
- Malabsorption: The normal flow of food is changed so that the upper part of the small
 intestine (duodenum and upper jejunum) is bypassed. This will cause incomplete
 absorption and digestion of calories, including fat, protein and carbohydrate. Your body will
 recognize fewer of the calories that you eat. Vitamin and mineral absorption will also be
 affected and consequently you will be asked to take supplements for the rest of your life.
- Some foods that tend to be high in sugar and/or fat may not be well tolerated after the surgery and may need to be avoided. Examples are sweets, fried foods, and red meat. Eating them may cause you to have nausea, vomiting, diarrhea, sweating and/or pain.
- Hormonal: Surgery may alter the hormones that control your sense of hunger and fullness.
 One such hormone is ghrelin which normally goes up when you have decreased caloric intake yet with gastric bypass and sleeve gastrectomy this hormone does not elevate, possibly helping to ease hunger after surgery.

Will surgery by itself guarantee your long-term success?

<u>NO !!</u>

Success Rates:

- There is approximately a 60-70% success rate with the surgery.
- "Success" means you should be able to keep off at least ½ or 50% of your <u>excess</u> body weight even after 5 or more years. Many lose 70% of their excess body weight over a period of 12-18 months after surgery.
- There is the potential to gain back 5-10% (usually 10-20 pounds) body weight between the 2nd and 4th year after surgery. We find this is minimized in those who regularly exercise. It is possible to defeat the surgery by ignoring program guidelines and suggestions by drinking high calorie liquids, continuous snacking and sedentary living. This surgery is only a **tool** to help you feel full and choose a healthy lifestyle.

Sleeve Gastrectomy Surgery: How the Surgery Works:

The Sleeve Gastrectomy surgery works in two ways to help you to lose weight and improve your health and quality of life:

- Restriction: The stomach is changed from the size of a football into the size of a small plastic Easter egg or a lime. This "pouch" will initially hold only 1-2 ounces of food. The small pouch will limit your food intake, make you feel full quicker and stay full for a longer period.
- Hormonal: Surgery may alter the hormones that control your sense of hunger and fullness. One such hormone is ghrelin which normally goes up when you have decreased caloric intake yet with gastric bypass and sleeve gastrectomy this hormone does not elevate, possibly helping to ease hunger after surgery.

Will surgery by itself guarantee your long-term success?

NO!!

Success Rates:

- There is approximately a 60-70% success rate with the surgery. Most patients lose 60-65% of their excess body weight by 1-year to 18-months post-surgery.
- Long term "success" means you should be able to keep off at least ½ or 50% of your <u>excess</u> body weight even after 5 or more years. The sleeve gastrectomy was not covered by most insurers in Maine until 2010-2012 so we don't have long term data in our program yet on what 5-yr average weight loss is for the sleeve gastrectomy.
- There is the potential to gain back 5-10% (usually 10-20 pounds) body weight between the 2nd and 4th year after surgery after any weight loss surgery. We find this is minimized in those who regularly exercise. It is possible to defeat the surgery by ignoring program guidelines and suggestions by drinking high calorie liquids, continuous snacking and sedentary living. This surgery is only a **tool** to help you feel full and choose a healthy lifestyle.

Adjustable Gastric Band Surgery: How the Surgery Works:

The band is a less invasive surgery compared to gastric bypass and sleeve gastrectomy. A silicone band is placed around the upper part of the stomach creating **restriction** with:

- 1. A smaller upper pouch
- 2. An early feeling of fullness
- 3. A limited volume in which to hold food.

The band is adjustable and placed around the upper part of the stomach creating a new small pouch which limits the amount of food allowed in the new stomach. The band is also composed of a hollow ring that can be adjusted (inflated or deflated) to alter the opening between the upper and lower portion of your stomach.

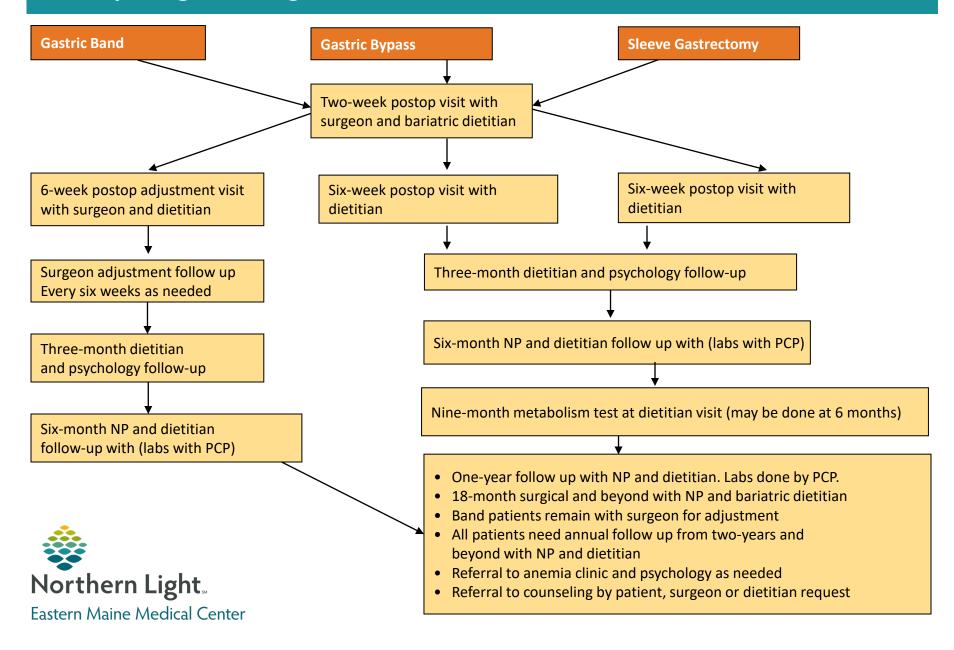
Will surgery by itself guarantee your long-term success? NO

Unlike the gastric bypass there is no malapsorption to decrease the calories of the food you eat. Unlike the gastric bypass and sleeve gastrectomy there is no hormonal control of obesity assisting with control of appetite, hunger and fullness.

The average weight loss is 35-50% of your excess weight (compared to 60-70% with bypass or sleeve) and it takes about 5 years to lose the weight (compared to 1-2 years for bypass and sleeve).

The surgery is a TOOL to help you lose weight. Weight loss is often around a pound per week when you are properly adjusted. Ultimately you are responsible for your success and success will hinge on your being properly adjusted which means visits to your surgeon for the addition or removal of saline (sterile fluid) from your band.

Post-op Surgical Weight Loss Flow



Mode of Weight Loss Restrictive and Malabsorptive (involving the stomach and intestines)			Restrictive (involving the stomach only)			
Type of Operation	Roux-en-Y Gastric Bypass (GBP)		Sleeve Gastrectomy	Adjustable Laparoscopic Gastric Band		
Anatomy	Small 1-ounce pouch (20-30cc) connected to the small intestine. Food and digestive juices are separated for 3-5 feet.		Long narrow vertical pouch measuring 3 oz (100cc). No intestinal bypass performed.	An adjustable silicone ring (band) is placed around the top part of the stomach creating a small 1-2-ounce (15-30cc) pouch.		
Mechanism	 Significantly restricts the volume of food that can be consumed. Weight loss is over an 18-month period. Mild malabsorption "Dumping Syndrome" when sugar or fats are eaten Delays emptying of the stomach pouch Vomiting may occur if too much food is eaten or eaten too quickly 		 ☑ Significantly restricts the volume of food that can be consumed. Weight loss over an 18-month period. ☑ NO malabsorption ☑ NO dumping Does offer some hormonal benefit to hunger/fullness 	 ☑ Moderately restricts the volume and type of foods able to be eaten. Weight loss over a 3-5-year period ☑ Only procedure that is adjustable where saline is added to the band to create a tighter band. Adjustments done every 6 weeks until appropriate level of weight loss and fullness reached. ☑ Delays emptying of pouch ☑ Creates sensation of fullness 		
Weight Loss United States Average statistical loss at 10 years	 ☑ 70% loss of excess weight at 2 years and 60% excess weight loss at 5 years ☑ 70% of patients lose at least ½ of their excess weight at the 5-year mark 		60% excess weight loss at 2 yearsLong term results not available currently.	☐ 35-50% excess weight loss at 5 years. ☐ Requires the most effort of all procedures to be successful.		
Long Term Dietary Modification (Excessive carbohydrate/high calorie intake will defeat all procedures)	 3 small high protein meals per day Must avoid sugar and fats to prevent "Dumping Syndrome" Vitamin deficiency/protein deficiency usually preventable with supplements 		② 3 small high protein meals per day with no drinking with meals ② Should not cause dumping though some patients report dumping like symptoms when	 3 small high protein meals per day Certain foods can get "stuck" if eaten (rice, bread, dense meats, nuts, popcorn) causing pain and vomiting. No drinking with meals 		

	No drinking with meals		they eat too quickly: no diarrhea Weight regain may be more likely than in other procedures if dietary modifications not adopted for life	
Nutritional Supplements Needed (Lifetime)	Multivitamin Vitamin B12 Calcium with vitamin D Iron (menstruating women)		MultivitaminCalcium/Vit DVitamin B12	Multivitamin Calcium with vitamin D
Potential Problems	 Dumping syndrome Stricture Ulcers Bowel obstruction Anemia Vitamin/mineral deficiencies (Iron, Vitamin B12, folate) Leak 		 ? Nausea and vomiting ? Heartburn ? Inadequate weight loss ? Weight regain ? Additional procedure may be needed to obtain adequate weight loss ? Leak 	 Slow weight loss Slippage Erosion Infection Port problems Device malfunction
Hospital Stay	2-3 days		2-3 days	0-1 day (most patients going home the same day)
Time off Work	2-3 weeks		2-3 weeks	2-3 weeks
Operating Time	1.5-3 hours		1.5 hours	1-1.5 hours
Our Recommendation	Most effective for patients with a BMI of 35-65 kg/m2 Virtually all insurance companies will authorize this procedure. May be most effective procedure for those with type 2 diabetes.		Most effective for patients with BMI of 35-50. Very low complication rate due to quicker OR time and no intestinal bypass performed.	Most effective for patients with a BMI of under 50. Best for patients who enjoy participating in an exercise program and are more disciplined in following dietary restrictions.