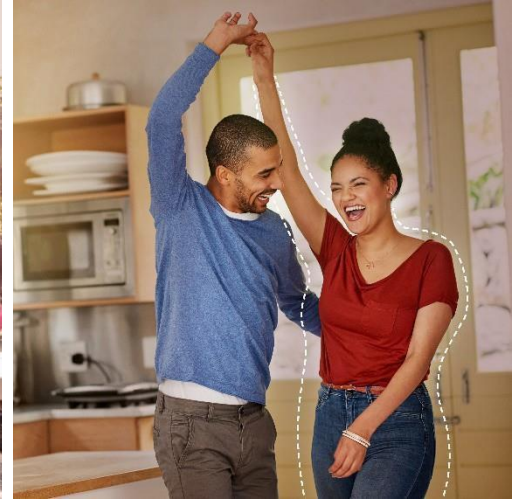


UNC BARIATRIC SURGERY

A Guide to Surgical Weight Loss



Everything

TO GAIN.



SCHOOL OF MEDICINE
Surgery

WELCOME

INITIAL EVALUATION

Date of Initial Evaluation _____

Height: _____ ft. _____ in Weight: _____ lbs.

BMI: _____ Category: _____

Ideal Body Weight (IBW): _____

(This is not a goal weight, nor is it the weight you should expect to get to after surgery)

Pounds over IBW: _____

Anticipated weight loss based on averages: _____ lbs.

(This is not a guaranteed weight loss; all results are personal and based on age, health, etc.)

Realistic Weight Goal: _____ lbs.

(This is your goal weight, based on averages lost by other patients- researched)

Your Personal Weight Goal: _____ lbs.

Weight to lose **BEFORE** surgery: _____ lbs.

BODY MEASUREMENTS:

Neck: _____ Waist: _____ Arm: _____

Chest: _____ Hips: _____ Thigh: _____

Blood pressure: _____

Pulse: _____

BARIATRIC SURGERY CHECKLIST

USE THIS CHECK LIST TO MAKE SURE YOU HAVE EVERYTHING IN ORDER FOR SURGERY.

Insurance

- CALL YOUR INSURANCE COMPANY AND VERIFY BARIATRIC SURGERY COVERAGE
 - CPT 43644: ROUX-EN Y GASTRIC BYPASS
 - CPT 43755: SLEEVE GASTRECTOMY

IF YOUR INSURANCE CHANGES AFTER STARTING THE PROGRAM, PLEASE NOTIFY OUR STAFF AT 984-974-6519



Patients are responsible for scheduling their own appointments

Appointments

Supervised Diet (if applicable)

- NOT REQUIRED
- 3 MONTHS
- 6 MONTHS
- 12 MONTHS

Visit 1: _____

Visit 2: _____

Visit 3: _____

Visit 4: _____

Visit 5: _____

Visit 6: _____

- TEAM VISIT: DIETITIAN AND NP
1:1 INITIAL APPOINTMENT
DATE _____

- DIETITIAN AND NP
1:1 FOLLOW UP APPOINTMENT
DATE _____
DATE _____

- ONE GROUP NUTRITION CLASS BEFORE SURGERY
DATE _____

- MEET WITH PSYCHOLOGIST (we will call you)
NAME _____
PHONE _____
DATE _____

- DIETITIAN AND NP FOLLOW UP AFTER PSYCH EVAL
DATE _____
DATE _____

- LAB WORK
DATE _____

- EGD (ENDOSCOPY)
Call **984-974-5050** TO SCHEDULE
DATE _____

- ADDITIONAL TESTING, AS NEEDED

SLEEP STUDY:
DATE _____

EKG:
DATE _____

CXR:
DATE _____

OTHER/CLEARANCES:

Support Group

- ATTEND AT LEAST TWO SUPPORT GROUP MEETINGS
DATE _____
DATE _____

- JOIN OUR FACEBOOK PAGE

UNC WLS Support Group (it is a closed group)

Mental Health Letter

To prospective UNC Bariatric Surgery candidates:

If you are currently working with a mental health provider outside of the UNC system, we request that this provider submit a letter on your behalf. That letter should provide information on your mental health diagnoses and your overall treatment history to date. In the letter, the provider should note how long they have been working with you, how often they see you, and if they plan to continue working with you after surgery. We would also like them to comment on your overall treatment progress and any concerns they might have about your current mental health status.

The letter of support can be sent through MyChart or faxed directly to Lisa Prestia, RN (Bariatric Nurse Coordinator) at 919-966-8440.

If preferable, the above information can be discussed by phone after you have signed a written release authorizing this communication.

If there are any questions regarding the requested information, please contact the provider who conducted your mental health evaluation for bariatric surgery directly.

Thank you,

The Psychology Team
UNC Bariatric Surgery Program

AFTER BARIATRIC SURGERY CHECKLIST

USE THIS CHECK LIST TO MAKE SURE YOU MAKE ALL OF YOUR REQUIRED FOLLOW UP APPOINTMENTS.
It is **your responsibility** to call and schedule these appointments.



Appointments

2-3 WK POSTOP WITH SURGEON
DATE _____

6WK POSTOP WITH DIETITIAN
DATE _____

3MTH POSTOP WITH NP
DATE _____

6MTH POSTOP WITH NP AND DIETITIAN
DATE _____

1YR POSTOP WITH SURGEON OR
NP AND DIETITIAN
DATE _____

18MTH POSTOP WITH NP OR DIETITIAN
DATE _____

2YR POSTOP WITH MED OBESITY MD OR PA
(AS RETURN IF ESTABLISHED; AS NEW IF NOT ESTABLISHED)
DATE _____

3YR POSTOP WITH MED OBESITY MD OR
PA DATE _____

4YR POSTOP WITH MED OBESITY MD OR
PA DATE _____

5YR POSTOP WITH MED OBESITY MD OR
PA DATE _____

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test results



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appointments



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mobile app



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prescription refills



Track
your health

USER ID: _____

PASSWORD: (At least 8 characters) _____

ANSWER TO SECURITY QUESTION: SELECT ONLY ONE:

- Your closest childhood friend?
- Name of your first pet?
- Favorite person from history?
- Make of your first car?

Remember to keep User ID and Password in a safe location. Do not share this information.

Need help with My UNC Chart? Call (888) 996-2767

SIGN UP to GET CONNECTED NOW at **MYUNCCHART.ORG**



Important COVID-19 Updates:

Nutrition Class will vary based on availability and maybe scheduled as a 1:1 visit, in person group visit, or virtual group visit

NP visits are being conducted in person and via telehealth using the Doximity app

Psychology visits are being conducted via telehealth using UNC MyChart or Phone

Labs should be drawn at a UNC Health facility

In person support groups are on hold indefinitely

Group meetings are conducted via Zoom.com at 6pm on the 1st Monday and 7pm on the 3rd Thursday of every month, unless it falls on a holiday.

ID: 348 693 8360

Passcode: UNCWLS

Must allow access to audio and video.

SCHEDULING CONTACTS

Bariatric Nurse Practitioner:

Name	Location	Phone	Clinic Day/s
Tara Zychowicz	UNC Memorial Hillsborough	984-974-0150 984-215-3500	Tuesdays Mon, Wed- Fri

Registered Dietitians (RD): *Additional clinics not listed may be available*

Name	Location	Phone	Clinic Day/s
Susan Strom	Hillsborough	984-215-3500	Mondays Wednesdays Thursdays Fridays
Lauren Boyd	UNC Memorial Hillsborough	984-974-0150 984-215-3500	Mondays Tuesdays Fridays Thursdays

Group Nutrition Class: *Additional classes not listed may be available*

Name	Location	Phone	Clinic Day/s
Susan- In Person	Hillsborough	984-215-3500	1 st & 3 rd Friday of the month
Class is 2pm-3pm; arrive by 1:45pm. Bring a pen and this informational binder with you.			

Psychologists:

Name	Location	Phone	Clinic Day/s
Dr Peat	Vilcom	984-974-5217	Mondays and Thursdays
Dr Forneris	Hillsborough	984-215-3500	Mondays and Wednesdays
To schedule your initial evaluation, please call the centralized number at 984-974-6519			

BMI CHART

HEIGHT	WEIGHT (lbs.)																													
	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350	360	370	380	390			
5'0"	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55	57	59	61	62	64	66	68	70	72	74	76			
5'1"	25	26	28	30	32	34	36	38	40	42	43	45	47	49	51	53	55	57	59	60	62	64	66	68	70	72	74			
5'2"	24	26	27	29	31	33	35	37	38	40	42	44	46	48	49	51	53	55	57	59	60	62	64	66	68	70	71			
5'3"	23	25	27	28	30	32	34	35	37	39	41	43	44	46	48	50	51	53	55	57	58	60	62	64	66	67	69			
5'4"	22	24	26	27	29	31	33	34	36	38	39	41	43	45	46	48	50	51	53	55	57	58	60	62	64	65	67			
5'5"	22	23	25	27	28	30	32	33	35	37	38	40	42	43	45	47	48	50	52	53	55	57	58	60	62	63	65			
5'6"	21	23	24	26	27	29	31	32	34	36	37	39	40	42	44	45	47	48	50	52	53	55	56	58	60	61	63			
5'7"	20	22	23	25	27	28	30	31	33	34	36	38	39	41	42	44	45	47	49	50	52	53	55	56	58	60	61			
5'8"	20	21	23	24	26	27	29	30	32	33	35	36	38	40	41	43	44	46	47	49	50	52	53	55	56	58	59			
5'9"	19	21	22	24	25	27	28	30	31	32	34	35	37	38	40	41	43	44	46	47	49	50	52	53	55	56	58			
5'10"	19	20	22	23	24	26	27	29	30	32	33	34	36	37	39	40	42	43	44	46	47	49	50	52	53	55	56			
5'11"	18	20	21	22	24	25	26	28	29	31	32	33	35	36	38	39	40	42	43	45	46	47	49	50	52	53	54			
6'0"	18	19	20	22	23	24	26	27	28	30	31	33	34	35	37	38	39	41	42	43	45	46	47	49	50	52	53			
6'1"	17	18	20	21	22	24	25	26	28	29	30	32	33	34	36	37	38	40	41	42	44	45	46	47	49	50	51			
6'2"	17	18	19	21	22	23	24	26	27	28	30	31	32	33	35	36	37	39	40	41	42	44	45	46	48	49	50			
6'3"	16	17	19	20	21	22	24	25	26	27	29	30	31	32	34	35	36	37	39	40	41	42	44	45	46	47	49			
6'4"	16	17	18	19	21	22	23	24	26	27	28	29	30	32	33	34	35	37	38	39	40	41	43	44	45	46	47			

BMI

<19	Underweight
19-25	Healthy weight
26-29	Overweight
30-39	Obese
>40	Morbid Obesity

General Information

GETTING STARTED

Welcome!

Obesity affects every aspect of your life, both the physical and emotional. If you struggle to lose weight with diet and exercise, weight-loss surgery may work for you. To make a lasting change, rely on the support of our expert team in Chapel Hill at UNC Health Care.

The comprehensive bariatric weight-loss program with UNC Weight Loss Surgery is centered around education and support. This finely tuned program is designed to give you all the information you need to take the next step:

- Information seminar
- Provider consultation
- Nutritional counseling
- Psychological consultation
- Sleep study
- Support groups

Studies have shown that weight-loss surgery can lead to better health, which in turn leads to a higher quality of life and increased lifespan. So, please let us tell you about the options for Weight Loss Surgery and the benefits of UNC's highly personalized approach.

Our Program Accreditation

Our program is designated a *Center of Excellence by the American College of Surgeons* as well as carrying the *Blue Cross Blue Shield Center of Distinction*. We have performed thousands of successful bariatric procedures that have been complemented with a full range of personalized lifestyle and lifelong support programs, from ongoing education to customized exercise and nutrition programs designed by some of the leaders in bariatric medicine. Our multidisciplinary team works together to ensure you have the greatest chance of success in changing your life through bariatric surgery and weight management.

Team Approach

Our program is built on providing you with the support you need to find a healthier life. To accomplish this goal, we assembled a diverse team of experts:

- Board-certified Bariatric Surgeons
- Licensed Psychologist
- Registered Dietitians

Additionally, our friendly staff is here to help you navigate our program and the insurance coverage process if you have questions.

Weight loss results may vary depending on the individual. There is no guarantee of specific results.

TEAM VISIT

Welcome to your first visit with the Bariatric Surgery team.

Today will include...

- A first appointment with our Dietitian
- A first appointment with our Nurse Practitioner
- May include lab work (you do not need to be fasting)
- May include drug and nicotine screen

We will then organize future visits, where you will complete:

- An Endoscopy
- A required Group Nutrition Class
- An evaluation by our Psychologist

Completing these appointments does not guarantee approval for bariatric surgery. Only the surgeon or bariatric coordinator can provide a surgery date.

In addition, you will need:

- Clearance from each provider mentioned above
- A final appointment with the NP and the RD in the clinic before we submit your case for insurance approval
- An appointment with the Surgeon and Anesthesiology team for final approval and operative planning
- We look forward to helping you through this process!

Thank you,

The UNC Bariatric Surgery Team

GETTING TO KNOW OUR TEAM:

SURGEONS:



Dr. Tim Farrell has been practicing surgery at UNC-Chapel Hill since 1999. He graduated from Princeton University, then UMDNJ-Robert Wood Johnson Medical School and then completed a general surgery residency at Dartmouth-Hitchcock Medical Center followed by a Minimally Invasive Surgery fellowship at Emory University Hospital. He serves as Director of Bariatric Surgery, Chief of Minimally Invasive Surgery and Director of the Advanced Minimally Invasive GI Surgery Fellowship at UNC. He is certified by the American Board of Surgery and is a fellow of the American College of Surgeons, the Society of American Gastrointestinal and Endoscopic Surgeons and the American Society for Metabolic and Bariatric Surgery. He holds leadership roles in several surgical societies.

Dr. Farrell has trained numerous bariatric surgeons who are now in practice across the U.S. and beyond. He is a father of seven and lives with his wife and children in Chapel Hill, NC.



Dr. Wayne Overby is a native of Eastern North Carolina. After serving in the U.S. Army, he completed his undergraduate and medical school degrees at East Carolina University and the Brody School of Medicine in Greenville, NC, followed by a General Surgery residency at the University of Washington in Seattle.

He returned to North Carolina and UNC in 2005 as a fellow in Minimally Invasive and Bariatric Surgery and has been a faculty member in the GI Surgery Division of the UNC Department of Surgery since 2007. He is a Fellow of the American College of Surgeons, serves as President of the Carolinas Chapter of the American Society for Metabolic and Bariatric Surgery and is an active member of the Society of American Gastrointestinal and Endoscopic Surgeons and American Hernia Society.

Dr. Overby is board certified in general surgery practicing exclusively at UNC Hospitals Hillsborough Campus, where he specializes minimally invasive and robotic approaches to general surgery, weight loss surgery and hernia surgery. Dr. Overby believes in a personalized and patient-centered approach to weight loss and bariatric surgery.

SURGEONS (CONTINUED):



Dr. Maggie Hodges grew up outside of Atlanta, GA, graduating from the University of Georgia before completing medical school and obtaining her Masters in Public Health from Emory University. She then completed general surgery residency and a research fellowship in regenerative biology at the University of Colorado before completing her fellowship in Minimally Invasive Surgery and Foregut Surgery at Providence Portland Medical Center in Portland, OR.

Dr. Hodges is excited to return to the Southeast, joining the University of North Carolina at Chapel Hill in 2022. She is the Associate Program Director for the Advanced Minimally Invasive GI Surgery Fellowship at UNC and is active in the Society of American Gastrointestinal and Endoscopic Surgeons, as well as the American Society for Metabolic and Bariatric Surgery.

Dr. Hodges is board certified in general surgery, with a certificate of fellowship training in foregut surgery, and she is excited to increase the availability of minimally invasive and robotic bariatric surgery at UNC. Dr. Hodges is passionate about patient education, striving for excellence in patient care, and taking an individualized approach to every patient encounter.

MID-LEVEL PROVIDER AND NURSE COORDINATOR:



Tara Zychowicz, FNP is a board-certified Family Nurse Practitioner, with a specialty in Bariatrics. She attended University of South Florida, and then Kennesaw State University, GA in 2002. She is accredited by the American Nurses Credentialing Center. She has worked with numerous clients who have undergone weight loss operations and managed their pre & postoperative care.



Natasha Rosser, PA completed her Physician Assistant Studies at George Washington University in 2010 and has a Masters of Science in Health Sciences. Since graduating, she worked in primary care until joining The UNC Multidisciplinary Weight Management Program in September 2019. Natasha enjoys focusing on the whole patient and exploring the many factors influencing their health. She is passionate about assisting patients in achieving their health goals and improving their quality of life.



Lisa Prestia, RN, Bariatric Coordinator, has been a registered nurse since 1998 and doing Bariatrics since 2002. Lisa has 9 years of experience as a critical care nurse and 20 years of bariatric nursing experience. Lisa will be assisting with coordinating your care and guide you through the surgical process. Please direct questions regarding your application to her. 919-843- 1258. Email: Lisa_Prestia@med.unc.edu.

DIETITIANS:



Susan Strom, RD is a Registered Dietitian licensed to practice in the state of North Carolina. Susan completed her undergraduate degree at SUNY Geneseo and went back to school after moving to North Carolina. She completed her dietetic internship at Meredith College in 2008 and her Master of Science in Nutrition from Meredith as well. She worked in private practice before joining UNC at the Wake Brook Campus in Raleigh. Currently, Sue works in several outpatient clinics focusing on chronic disease management and bariatric surgery, and as an inpatient dietitian at UNC-Hillsborough. Helping patients achieve their goals and have positive outcomes is the best part of her job.



Lauren Boyd, RD was born and raised in Vanceboro, a small town in Eastern North Carolina, and has mostly lived in Greenville since graduating from high school. Lauren graduated from East Carolina University with a Bachelors of Science in Nutrition and Dietetics. She completed her dietetic internship and Masters of Science in Nutrition at Murray State University. She is excited to be making the move from Greenville to Cary with her 8-year-old miniature schnauzer and 3-year-old Goldendoodle. She comes to us with experience as a clinical dietitian, clinical nutrition manager and patient services manager. Her favorite part about being a dietitian is meeting and connecting with different patients and helping to simplify nutrition that will promote long-term success for specific nutritional needs and goals.

PSYCHOLOGISTS:



Christine M. Peat, PhD, Clinical Psychologist, is an Assistant Professor of Psychiatry at the University of North Carolina at Chapel Hill (UNC) and the Director of the National Center of Excellence for Eating Disorders. Dr. Peat completed her bachelor's degree in psychology at the University of Arizona and obtained both her master's and doctoral degree in clinical psychology at the University of North Dakota. After completing her clinical internship in behavioral medicine at the West Virginia University School of Medicine in 2011, Dr. Peat moved to UNC to complete her post-doctoral fellowship in eating disorders. Her clinical work focuses on the evaluation and treatment of bariatric patients and patients with eating disorders. Her research also focuses in these areas with a particular emphasis on binge eating disorder and obesity.



Catherine A. Forneris, Ph.D., JD, ABPP, is a Professor in the Department of Psychiatry at the University of North Carolina (UNC) at Chapel Hill. She is a graduate of the University at Albany, State University of New York and North Carolina Central University. She has worked with our bariatric team for several years. The primary focus of her current clinical work is as the director of the Dialectical Behavior Therapy program at UNC-Chapel Hill. She is also a medical co-director of the UNC Hospitals Beacon Child and Family program which provides a variety of services to patients of all ages and their families who are victims of interpersonal violence. Dr. Forneris has been a co-investigator on several research projects funded by the National Institute of Mental Health, many of which focus on mood disorders. She has co-authored several research articles and been the lead author on several paper presentations on trauma, PTSD, health care utilization, and women's health. She has served as a co-investigator on systematic reviews for the Agency for Healthcare Research and Quality on effective treatments for PTSD and Major Depression, as well as effective interventions to prevent PTSD and Seasonal Affective Disorder. She is a board member of the North Carolina Psychological Association and chairs their Continuing Education committee.

ABOUT OBESITY

Learning about obesity may help you understand the many challenges you have faced. We look forward to helping you overcome these challenges. We are committed to helping you achieve your goals.

Obesity is an excess amount of body fat. It is often defined by the body mass index (BMI), which is a measure of a person's height and weight. The index is used by healthcare professionals to define obesity, since studies find that BMI correlates to the amount of fat a person has. This is true for most people, but not all. BMI measurements for athletes, pregnant women and the elderly do not follow these guidelines. A BMI of 18.5 to 24.9 is considered normal size; 25 to 29.9 is overweight; 30 to 34.9 is Class I or moderate obesity; 35 to 39.9 is Class II or serious obesity; and a BMI of 40 or higher is Class III or clinically severe obesity (sometimes also known as morbid obesity).

Obesity is caused by a number of factors. These include:

- Genetics
- Processed foods
- Excessive calorie intake
- Sedentary lifestyle
- Chronic sleep loss
- Stress and emotional distress
- Certain medications

Obesity reduces your longevity, primarily because of additional health problems that can occur because of it. These include type II diabetes, high blood pressure, heart and vascular disease, sleep apnea, non-alcoholic fatty liver disease, osteoarthritis, acid reflux disease, gastritis and other gastrointestinal disorders, asthma and other respiratory conditions, a weakened immune system, back problems, infertility, certain cancers, urinary stress incontinence, depression, anxiety and more.

Obesity becomes "morbid" when it reaches the point where it significantly increases the risk of one or more obesity-related health conditions to occur, which can lead to physical disability or even death.

Individuals who have severe or morbid obesity are generally resistant to long-term weight loss using conventional means, such as a diet, behavior modification, exercise or pharmaceuticals. According to world-renowned obesity experts, the only long-term treatment for severe obesity is bariatric surgery.

REALISTIC WEIGHT GOALS

Most people who undergo bariatric surgery will lose about 30% of their body weight, or 50% of their excess body weight.

CANDIDACY

It is always safest to lose weight by making lifestyle changes such as developing healthy eating habits and getting regular physical activity. For those who have tried but cannot lose the excess weight that is causing health problems, weight-loss surgery—also called bariatric surgery—may be appropriate. We can provide surgical weight loss for qualified patients up to 450 pounds.

YOU MAY BE A CANDIDATE FOR BARIATRIC SURGERY IF:

- Body Mass Index (BMI) greater or equal to 35 kg/m², with one or more significant obesity-related conditions such as high blood pressure, diabetes, sleep apnea, high cholesterol, and arthritis, OR
- BMI greater than 40 kg/m², regardless of other medical conditions
- History of multiple failed weight-loss attempts by dieting, exercise, and medical therapies, as documented by your physician
- 18 to 65 years of age (with some exceptions)
- Understanding the procedure and implications, and accepting the operative risks
- Having realistic expectations and motivation
- Committing to lifelong maintenance programs for diet, vitamin supplementation, exercise, and follow-up with your healthcare team

These criteria are based on the National Institutes of Health Consensus Development Conference, March 25-27, 1991, Gastrointestinal Surgery for Severe Obesity, published in the American Journal of Clinical Nutrition 1992:55:615s-9s.

OTHER OPTIONS FOR WEIGHT LOSS ASSISTANCE MAY INCLUDE:

- Medical loss plan with a Bariatric Physician or Dietitian

REASONS TO DECLINE SURGERY

- You have an inflammatory disease or condition of the gastrointestinal tract, such as ulcers, severe esophagitis, or Crohn's disease
- You have severe heart or lung disease that makes you a poor candidate for any surgery
- You have some other disease that makes you a poor candidate for any surgery.
- You have a problem that could cause bleeding in the esophagus or stomach. That might include esophageal or gastric varices (a dilated vein). It might also be a congenital or acquired intestinal telangiectasia (dilation of a small blood vessels)
- You have portal hypertension
- You have cirrhosis
- Your esophagus, stomach, or intestine is not normal (congenital or acquired). For instance, you might have a narrowed opening
- You have/experienced an intra-operative gastric injury, such as a gastric perforation.
- You have chronic pancreatitis
- You are pregnant or want to become pregnant in the next 12 months
- You are currently addicted to alcohol or drugs
- You are under 18 years of age
- You are over 72 years of age
- You have an infection anywhere in your body or one that could contaminate the surgical area
- You are on chronic, long-term steroid treatment. **there are exceptions
- You cannot or do not want to follow the dietary rules that come with this procedure.
- You or someone in your family has an autoimmune connective tissue disease. That might be a disease such as systemic lupus erythematosus or scleroderma. The same is true if you have symptoms of one of these diseases.

Additional Contraindications to surgery may include:

- Limited past diet attempts
- History of poor adherence to medical regimens or pattern of missed appointments
- Active substance abuse or psychosis. You must be substance-free for 12 months
- Uncontrolled/untreated psychiatric disorder
- Suicide attempt within the last 18 months
- Multiple suicide attempts within the last five years
- Current smoking, vaping, chewing, or JUULing. You must be nicotine (and marijuana) free for 3 months
- If you have Lynch Syndrome: Gastric bypass is contraindicated, but a sleeve may be an option

Only your Bariatric Surgery Team can determine if Bariatric surgery is right for you, please inform us if you have any of the above conditions.

WEIGHT LOSS SURGERY AND MENTAL HEALTH

A message from Christine M. Peat, PhD, Clinical Psychologist:

Weight loss surgery is a life-changing procedure that requires a lot of thought, changes to your daily routine, and adjustment to a new lifestyle. It is important to remember that weight loss surgery is not a “cure-all.” Instead, it is a tool to help you achieve a healthier weight.

An important part of weight loss surgery is the Mental Health Visit. This visit is required by the UNC Weight Loss Surgery Program because weight loss surgery affects your physical body and your emotional/mental life. Usually, the Mental Health Visit will last 1 hour, and you will discuss your health habits, weight history, stress levels, coping patterns, and mental health. Sometimes, more than 1 visit is needed. The information from this visit will help you get ready for surgery and help you make the changes needed to keep you successful after (for example, changes to your eating habits and physical activity levels).

Mental Health Visits may sometimes involve getting talk therapy, reading self-help books, or discussing medicines to help decrease issues like binge eating, stress, depression, and/or anxiety. Following the recommendations from your Mental Health Visit is important because we know that emotional and behavioral issues can reduce your ability to lose weight and increase your chance of regaining weight after surgery. We also encourage you to attend the support groups the UNC Weight Loss Surgery Program offers both in-person and online through Facebook. This lets you hear from others who have already had the surgery, helps you be consistent with your new health habits, and helps you adjust to all of the new changes in your life.

In summary, we want to help you achieve the best outcomes possible after surgery! If you have any questions or concerns, please do not hesitate to discuss them during your Mental Health Visit.

Sincerely,

Christine M. Peat, PhD
Licensed Psychologist

BARIATRIC SURGERY PROCEDURES

Procedures

- Roux-en-Y Gastric Bypass
- Vertical Sleeve Gastrectomy
- Gastric Band Removal
- Revision

Benefits and Results

Bariatric surgery can lead to massive weight loss. Long term, you can expect to lose 35 to 65% of your excess weight and often much more. Along with increasing your lifespan and quality of life, you'll find that your chances of serious complications such as diabetes, heart disease, vascular disease, lipid abnormalities, blood pressure, sleep apnea and other sleep disorders, asthma, fatty liver disease, osteoarthritis, back pain, intracranial hypertension, urinary stress incontinence, GERD and other GI disorders, the risk for cancer, fertility, depression and anxiety are greatly reduced because of your surgery and corresponding weight loss.

These different methods work to help patients lose excess weight and transform their health by resolving or improving associated medical conditions. While weight-loss surgery has many benefits, it also carries certain risks. It is important to have realistic expectations regarding the surgery.

Bariatric surgery is elective; therefore, the education provided by our team is an important part of the process. You must be willing to understand the surgery, the risks and the benefits of the surgery, the expected weight loss, and the post-surgical eating requirements.

Deciding to accept risk for the purpose of improving one's health is a big decision that requires face-to-face discussions between patients and health care providers. Although the risks of untreated obesity generally are greater than the risks of surgery, patients need to have full information about the possibility of complications before making a final decision to go ahead. Therefore, every weight-loss surgery candidate will have a minimum of two individual appointments with a surgeon and nurse practitioner to gather the information about risks and benefits for the available procedures, so the best personal choices can be made.

Note: Surgery staples are non-magnetic titanium, and MRI safe, and will not set off airport security.

Risks

- Bleeding
- Infection
- Gallstones
- Leak
- Pneumonia
- Excessive weight loss
- Nutritional deficiencies
- Weight Regain
- Blood clot
- Heart Attack
- Obstruction/Stenosis
- Death

Gastric Bypass (Roux-en-Y)

Roux-en-Y gastric bypass surgery is the gold standard operation for weight loss. It uses a combination of restriction and malabsorption. This procedure involves **dividing the top portion of the stomach to form a small pouch that holds about 1-2 ounces**. The remainder of the stomach is separated from the pouch and does not receive food. A portion of the small intestine (duodenum) is bypassed and connected to the pouch (jejunum).

The bypass allows food to skip a portion of the small intestine (duodenum) and the small opening created a feeling of fullness. In addition, after gastric bypass, most patients will no longer tolerate sweet foods and beverages because of a reaction called dumping syndrome.

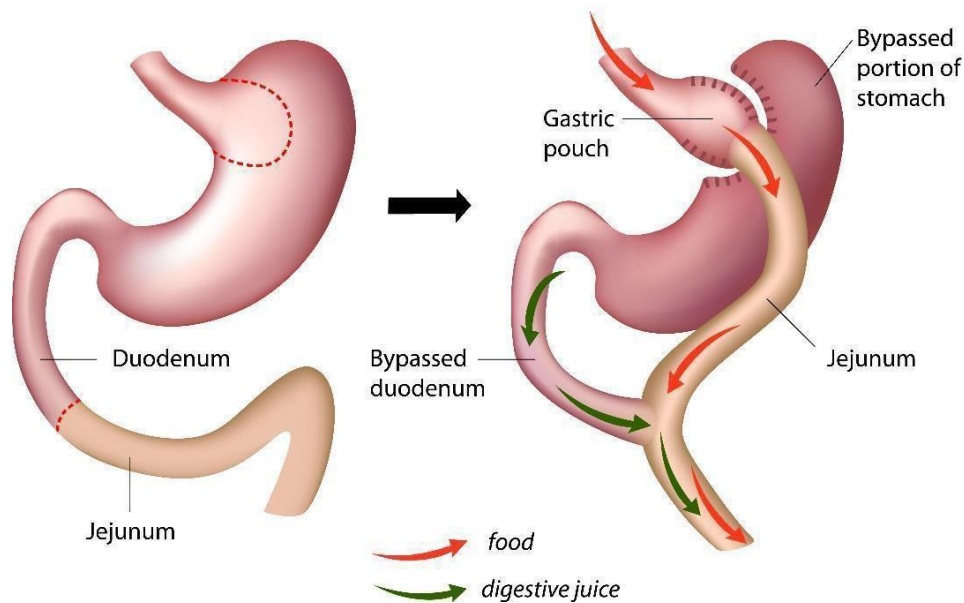
It can improve diabetes, gastric reflux, blood pressure, cholesterol, sleep apnea, and infertility.

Bariatric surgery changes gut hormones, gut bacteria, signals to the brain, and the rate of gastric emptying.

OUTCOMES- HOW MUCH WEIGHT LOSS TO EXPECT

The amount of weight loss is variable, and can be as much as 73% of the excess body weight

Roux-en-Y Gastric Bypass (RNY)



SPECIFIC PROCEDURE RISKS:

May include: ulcers, internal hernia, obstruction, **dumping syndrome** or stricture.

Vertical Sleeve Gastrectomy

The vertical sleeve gastrectomy generates weight loss by restricting the amount of food (and therefore calories) that can be eaten. It is a **permanent removal** of 80% or more of the stomach creating a slender tube, or “sleeve.” This not only reduces caloric intake, but slows the intake of food, creating a sense of fullness and satiety. It has been shown to alter hunger hormone production (Ghrelin).

It can improve diabetes, blood pressure, cholesterol, sleep apnea, and infertility.

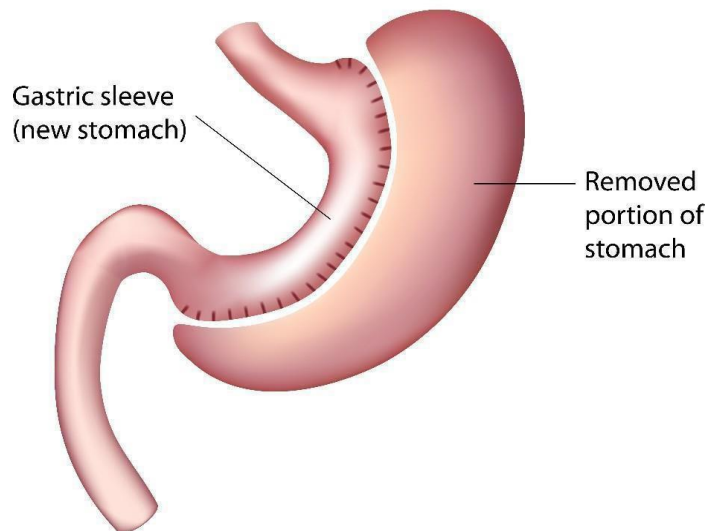
Bariatric surgery changes gut hormones, gut bacteria, signals to the brain, and rate of gastric emptying.

OUTCOMES- HOW MUCH WEIGHT LOSS TO EXPECT

The amount of weight loss is variable, and can be as much as 60% of the excess body weight

1-3 years after your surgery an endoscopy will be repeated to evaluate your sleeve

Vertical Sleeve Gastrectomy



SPECIFIC PROCEDURE RISKS:

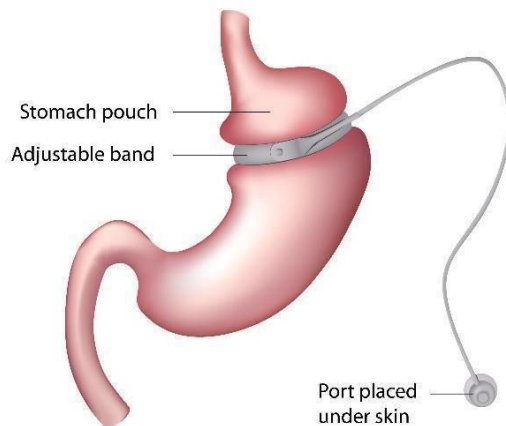
May include **reflux**, food intolerances, esophageal spasm, esophageal dilation (stretching) which can lead to dysmotility or enlarged pouch (and subsequently weight regain).

Revisional Operations

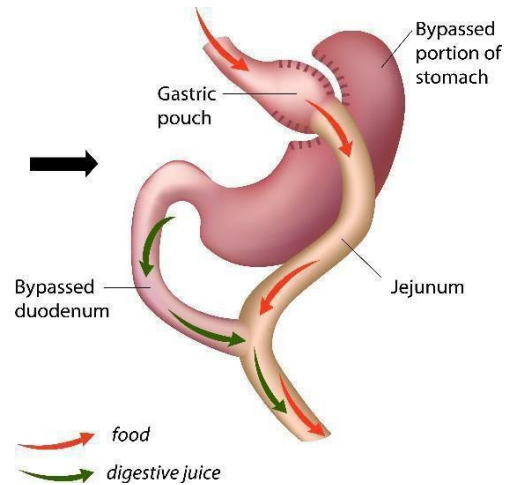
The transition from a gastric band (Lap Band) to a sleeve gastrectomy or a gastric bypass involves:

REMOVAL OF THE LAP BAND AND CREATION OF A GASTRIC BYPASS

Adjustable Gastric Band (Lap Band)

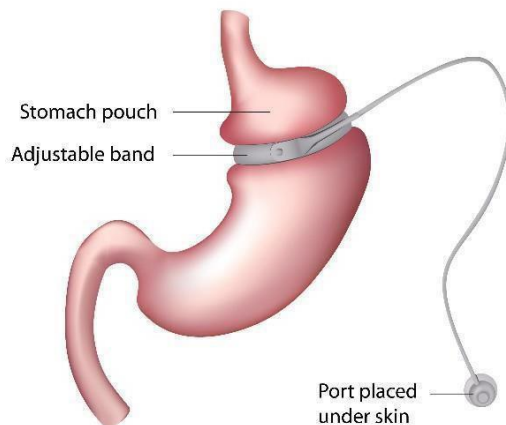


Roux-en-Y Gastric Bypass (RNY)

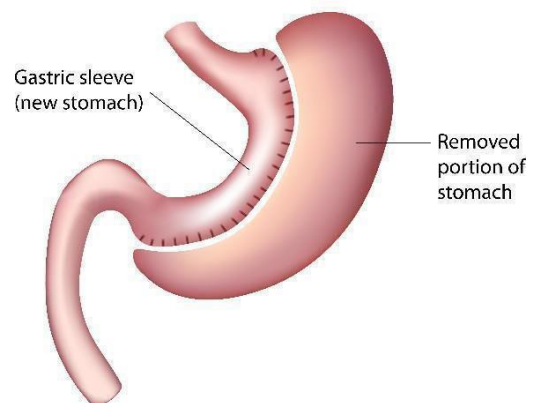


REMOVAL OF THE LAP BAND AND CREATION OF VERTICAL SLEEVE GASTRECTOMY

Adjustable Gastric Band (Lap Band)



Vertical Sleeve Gastrectomy



Risks and complications

- Increased risk of bleeding
- Removal of scar tissue

May need to be performed in a 2 step or staged approach: Removal of lap band and then a few weeks later second bariatric procedure

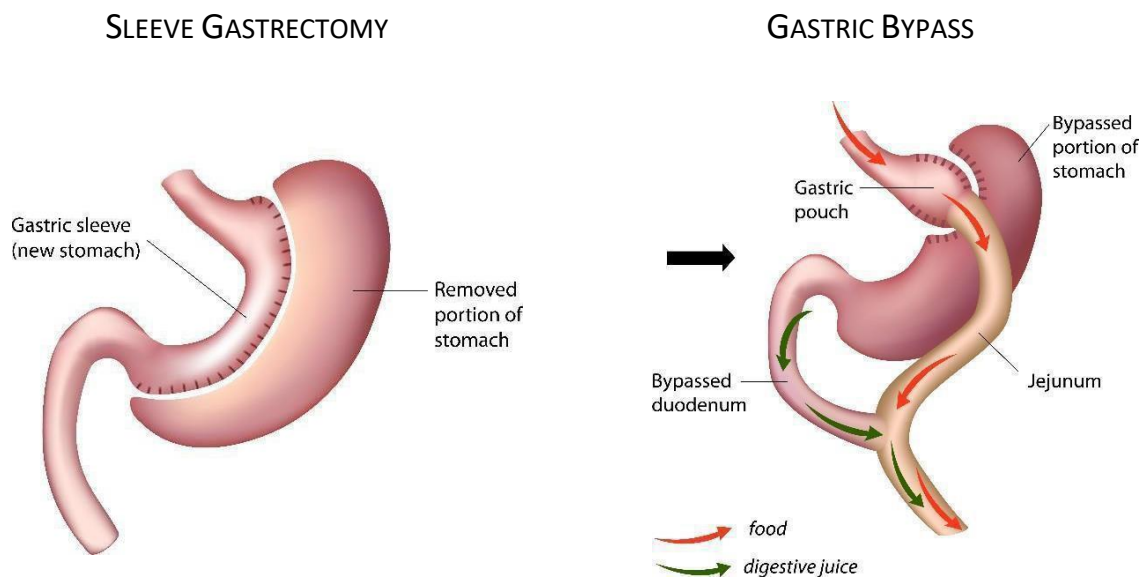
Revisional Operations

The transition from a vertical sleeve gastrectomy to a gastric bypass involves:

- Endoscopy
- pH test
- Upper GI

Reasons for revision may include acid reflux, poor initial weight loss, continued health problems related to weight, or high BMI

REVISION OF THE SLEEVE TO GASTRIC BYPASS



Risks and complications

- Increased risk of bleeding
- Removal of scar tissue
- Increased length of time in the operating room

Prior compliance to diet and follow up care may determine if your insurance approves or denies revisional surgery. Some insurances only cover 1 surgery per lifetime.

Before Surgery

BEFORE SURGERY: REQUIREMENTS AND INFORMATION

Insurance Approval

It is very important that you know your policy and coverage.

Once all your preoperative requirements are met the office will contact your health insurance policy for their final approval. After that you will meet with the surgeon. If he decides you are a candidate for the surgery, then a surgery date will be set depending upon your surgeon's availability and operating time availability.

Preoperative Clearances

If you have any pre-existing conditions that require a clearance, we will work with you on referrals or requesting letters of support from your specialists.

These clearances must be obtained prior to submission of your chart to the insurance company.

Type II Diabetes

If you have diabetes: an A1C of 8.5% or less is required prior to bariatric surgery. A lab test will be ordered within 4 weeks of surgery to confirm. You may need to see an endocrinologist to assist.

Sleep Apnea

There is a high rate of sleep apnea in patients qualifying for bariatric surgery. If a sleep study has been advised it will need to be performed.

- If a sleep study confirms the presence of sleep apnea, we recommend 3 months of PAP (CPAP/BiPAP/AVAPs) therapy prior to surgery.
- If you have moderate or severe sleep apnea, you will need an echocardiogram to evaluate for additional effects of sleep apnea on your heart and lungs.
- If you have moderate or severe sleep apnea and evidence of pulmonary hypertension on echocardiogram, 3 months of PAP use is required prior to surgery

Hypertension (high blood pressure)

If you have any known heart disease, poorly controlled blood pressure, or an abnormal ECG, you will need to see a cardiologist before surgery.

Supervised Diet Requirement

Many insurance companies require a 3- or 6-month consecutive supervised diet and exercise counseling program prior to covering bariatric surgery.

This can be done with your primary care provider, a Bariatric Medicine Provider, or the UNC Medical Weight Loss Program.

Preoperative Diet

A 5-10% weight loss may be required prior to your operation. This can be done by cutting calories, a low carbohydrate diet, or even protein shakes. A personalized weight loss goal will be set for you. It may be helpful to look at recipes for full liquid diet and pureed diet tips, ideas and recipes.

Avoid binging on foods you think you will never eat again after surgery. You may never eat them in the quantity you do now, but you will be able to taste them again.

Make sure any dental problems you have are evaluated prior to surgery, it requires a lot of chewing in the postoperative solid food eating phase.

Phentermine use **must** be discontinued 7 days prior to surgery (if applicable).

Nutrition Class

A nutrition education class is required before surgery.

A follow-up with our dietitian is required after the class with the RD to review your knowledge of the bariatric eating plan.

Two weeks before surgery you will be placed on a Liver Shrink Diet that will consist of protein shakes/supplements, and a low carbohydrate meal. See pre-op handout from **dietitian**.

Psychological Consideration

Bariatric surgeries do not change emotional eating, cravings, or binge eating that may be present before surgery and after. Additionally, the behavioral and lifestyle changes involved in bariatric surgery are extensive and can be challenging.

We require a visit with our Program Psychologist before bariatric surgery. This will be scheduled after the Nutrition Education Visit.

If you already see a mental health care provider, we require a letter of support from that provider.

The psychologist can help you develop strategies to make the lifestyle and behavioral changes easier. She can also help you address any underlying eating, mood, or interpersonal problems you might experience after surgery. In addition, our support group can help supplement the work you might do with the psychologist and increase your chances of long-term success after surgery.

If you take antidepressant medications, they may need to be titrated or changed to a liquid form after surgery; this is to be done with your prescriber.

Consider mental health counseling before and immediately after surgery to help work on any emotional issues/concerns.

Smoking & Nicotine

If you are a smoker, **you must quit smoking at least 3 months before surgery**. If the first test is positive, we will check your urine or blood for nicotine (including marijuana) every month for 3 months before you are cleared for surgery.

Nicotine patches, gums, or vapors are not acceptable alternatives as the nicotine will still show up in your urine or blood stream. You can discuss medications for smoking cessation with your Primary Care Provider.

You must be substance free for 12 months. A urine toxicology screen is required.

Alcohol

If alcohol is problematic before surgery, there is an increased risk of ulcers, gastritis, and a risk of alcohol addiction after surgery. It is advised that alcohol be significantly limited before surgery.

Blood Thinners

Stop full dose aspirin (325 mg) 1 week before surgery or any NSAIDS, or blood thinners.

Baby aspirin (81 mg) may be taken.

NSAIDS (non-steroidal anti-inflammatory drugs)

You must avoid ibuprofen, Advil, Motrin, Aleve, Goody's, BC powder, Naprosyn, etc. prior to surgery to prevent bleeding, stomach and esophagus inflammation (gastritis).

You may take Tylenol or acetaminophen-based products for pain, or fever.

Laboratory Work and Testing

- Blood work/Lab testing is necessary
- An Endoscopy is required
- A Sleep study, Ultrasound, EKG, or X-ray, may be recommended
 - If you have already been referred to sleep medicine/neurology for a sleep study this must be completed prior to having surgery and if CPAP is needed, it must be worn for a minimum of 3 months prior to surgery
- We will call, MyChart message you, or discuss at our next appointment any abnormal results that need attention
- A letter of support from your primary care doctor is required
- Clearance from any specialists you see may be required, such as a psychiatrist, or Cardiologist

Support Group

Support groups are open to individuals at any step in the process. For those who have undergone bariatric surgery, attendance is strongly encouraged. We cover a variety of topics, from nutrition and cooking to exercise and plastic surgery, with frequent guests from these disciplines.

We strongly recommend you attend at least 2 support group sessions prior to surgery and often after surgery.

Meetings are held via Zoom at 6pm on the 1st Monday of the month and at 7pm on the 3rd Thursday unless it falls on a holiday. Go to [zoom.com](https://zoom.us), meeting ID 348 693 8460, passcode UNCWLS

In person support groups are on hold indefinitely.

We post updates on the Facebook Page and our website.

Website: www.uncweightlosssurgery.com

Facebook: [UNC WLS Support Group \(it is a closed group\)](#)

After Surgery

AFTER SURGERY: WHAT TO EXPECT

Length of Stay

Patients who have Sleeve Gastrectomy typically stay one night in the hospital. Those who have Gastric Bypass typically stay two nights in the hospital. Length of stay may be longer if nausea, dehydration, pain, or other conditions arise.

Time Off from Work

Most people take 7-21 days off from work (on average), depending on the type of job. If you do not work, take off time from your activities of daily living that require extra effort, lifting, pulling, or straining.

Resuming Physical Exercise

We recommend walking as soon as possible after surgery, Day 1, to help move the gases, and prevent pneumonia, and risk of blood clots. No heavy lifting x 2 weeks.

- Allow pain to be your guide.
- Avoid swimming, hot tubs, or baths until incisions are healed, clean and dry. (Showers are fine).
- See Section on Physical Activity.

Sleep Apnea

Please bring your CPAP to the hospital.

- You will wear your CPAP (or Bipap) after surgery until a repeat sleep study shows that you no longer have sleep apnea.

The most common postoperative issues are covered in more detail on the following pages: Pain, constipation, nausea, dehydration, and food intolerances, dumping syndrome, reflux, hair loss, skin sagging, or laxity.

AFTER SURGERY: CARING FOR YOURSELF AT HOME

After being discharged home, take a few simple measures to allow yourself to optimize your recovery

Controlling Your Discomfort

- Take your prescribed pain medication as directed if you need it.
- As a less potent alternative, you may take liquid acetaminophen (Tylenol) instead of your prescribed pain medication. Do not take them together due to risk of acetaminophen toxicity.
- Splint your abdomen with a pillow when coughing or sneezing. With laparoscopic gastric bypass, patients often notice increased soreness or pain at the larger abdominal incisions. This is typical and expected, especially with more movement. It can take up to 4 weeks to go away.

Understanding Body Changes

It is common to feel tired after surgery. Your body is adjusting to the physiologic changes and weight loss. Ironically, you may find it difficult to sleep, which is also normal. Do not sleep or nap too much during the day. You may even feel depressed for a few weeks and question your decisions to choose surgery. If you experience these feelings, you will find that after about a month's time, you will start to feel better.

Some patients may experience nausea and/or vomiting. The most common causes of Vomiting following bariatric surgery are:

- Eating too fast
- Eating too much
- Drinking while eating
- Eating foods without chewing them thoroughly

Carefully follow the diet advancement plan as outlined in the "Nutrition" section. If vomiting occurs, try the following strategies to better accommodate your eating style:

- Eat your meals over a 30-minute period.
- Avoid fluids during your meal.
- Chew your food thoroughly.
- Eat softer foods for a few days following the episode.

If your issues persist, please call our office. While a decreased appetite is the desired effect of the operation, you must be careful not to forget to eat. You may need to encourage yourself to eat. It is extremely important that you follow the dietary plan as directed (starving is bad).

Pain

Pain is subjective, meaning everyone experiences pain differently; we will provide you with prescription pain medication for as-needed use, the majority of the pain will last about 3-7 days and then gradually improve. Pain medication is tailored to fit your needs and we will provide you with adequate pain relief so that you can get up and move around and do the things you need to do. Tylenol use after surgery is recommended, and avoid NSAIDS (Advil, ibuprofen, Motrin, Aleve, meloxicam, BC powder, and Goody's).

Constipation

Constipation means that you have a hard time passing stools (bowel movements). People pass stools from 3 times a day to once every 3 days. What is normal for you may be different. Constipation may occur with pain in the rectum and cramping. The pain may get worse when you try to pass stools. Sometimes there are small amounts of bright red blood on toilet paper or the surface of stools. This is because of enlarged veins near the rectum (hemorrhoids).

A few changes in your diet and lifestyle may help you avoid ongoing constipation. Your provider may also prescribe medicine to help loosen your stool.

Pain medicines can cause constipation.

Tips to prevent and treat constipation:

- Start a stool softener 1-2 weeks before surgery. (Colace/Docusate Sodium).
- Drink plenty of water.
- You may use over-the-counter medications to help with constipation, including: Milk of Magnesia, Mira Lax, Dulcolax, Fleets enema, and suppository. Read and follow all instructions on the label. Do not use laxatives on a long-term basis.
- Take a fiber supplement, such as powder form of Citrucel, Benefiber. Read and follow all instructions on the label.
- Get at least 30 minutes of exercise on most days of the week. Walking is a good choice right after surgery.
- Schedule time each day for a bowel movement. A daily routine may help. Take your time having your bowel movement.
- Support your feet with a small step stool when you sit on the toilet. This helps flex your hips and places your pelvis in a squatting position.

Nausea

After you have had surgery, you may feel sick to your stomach (nauseated) or you may vomit. Sometimes anesthesia can make you feel sick. It is a common side effect and often doesn't last long. Pain also can make you feel sick or vomit. After the anesthesia wears off, you may feel pain from the incision (cut). That pain could then upset your stomach. Taking pain medicine can also make you feel sick to your stomach.

Whatever the cause, you may get medicine that can help.

We typically prescribe medications (such as Zofran, Phenergan, or Scopolamine) to take after surgery to prevent or treat the nausea.

It is important to try not to vomit right after surgery while healing is taking place.

RISKS OF SURGERY

Infection

Skin infections may occur, as well as a reaction to the surgical glue used to close the incisions. Keep skin clean and dry.

Notify the Bariatric surgery team if you are having drainage from the incisions, or fever.

Blood clots

Blood clots may occur after surgery, be sure to remain as active as possible, and get up and walk every hour while awake. Notify the Bariatric surgery team right away if you are experiencing any severe leg pains, shortness of breath, or changes in color in your legs.

Leakage

Staple line leak is rare but is considered a surgical emergency. Symptoms may include a rapid heart rate, fever, and severe pain.

Notify the Bariatric surgery team right away if you are experiencing any of these symptoms.

Food Intolerances

Chew your food 30 times per bite.

Notify the Bariatric surgery team right away if you are unable to keep down fluids or protein shakes.

Stricture/Stenosis

Tightness of the surgical connections may occur due to swelling or scar tissue formation. Notify the Bariatric surgery team if you are unable to tolerate liquids or food, or if you are vomiting frequently.

Stones

The risk of gallstones increases with rapid weight loss. If you have a history of gallstones let us know. The use of ursodiol (Actigall) is prescribed for 6 months after surgery in patients who still have their gallbladder.

Kidney stones may also increase or occur with bariatric surgery.

Ulcers

Ulcers can be caused by surgery alone, or when there is a history of smoking or NSAID use. Notify the Bariatric surgery team right away if you are experiencing any heartburn, or pain in the stomach.

Gastric Reflux

Reflux may occur after bariatric surgery; the risk is often higher after sleeve gastrectomy. Be sure to take the medication provided by the surgeon daily for the first 3-6 months. (Prilosec or Nexium, also known as Proton Pump Inhibitors). These may need to be taken longer if necessary.

If reflux becomes severe, or medications are not helping let a member of the healthcare team know right away.

Small Bowel Obstruction

If you are not passing gas or are having difficulty moving your bowels, contact a member of the bariatric team right away.

Gout flare ups

Vitamin Deficiencies

Vitamins must be taken after surgery to prevent deficiencies; there is a financial commitment to supplements long term.

We recommend chewable or liquid supplements the first 6 months, and then vitamins can be switched to a capsule. **No gummy, tablet, grocery store brand or children's multivitamins** are recommended. Notify the bariatric team if you develop intolerance to your vitamins.

Please see dietitian information in the nutrition and vitamin supplement tabs of the binder for further details.

Skin Laxity

Weight gain stretches the epidermis and losing weight may cause skin sagging. It can be uncomfortable or embarrassing. Lifting weight and stretching may help.

Once weight loss has stabilized, *typically around 18 months after bariatric surgery*, you can consider the option of skin removal surgeries, and request a referral to the Plastic Surgery office for an evaluation.

Skin removal surgeries **may not be** covered by health insurance.

If rashes are occurring frequently do your best to keep the areas as dry as possible, use a cool setting on the hair dryer and apply over the counter (OTC) antifungal creams or powders. You may need to see a dermatologist for treatment.

Hair Loss

Thinning hair and losing more strands of hair are common in the first 9 months. Remember to take your vitamins and protein supplements as recommended. You do not need to take additional biotin or hair, skin, nails supplements. These are already included in the complete multivitamins. Hair will grow back in most cases when weight stabilizes. The use of OTC Nioxin shampoos may also be helpful.

Dehydration

To prevent dehydration, drink plenty of fluids, enough so that your urine is light yellow or clear like water. Choose water and other caffeine-free clear liquids until you feel better. If you have kidney, heart, or liver disease and have to limit fluids, talk with your provider before you increase the amount of fluids you drink.

If you do not feel like eating or drinking, try taking small sips of water, low sugar sports drinks, sugar free popsicles or other rehydration drinks.

Get plenty of rest.

To prevent dehydration

- Add more fluids to your diet and daily routine unless your provider has told you not to. During hot weather, drink more fluids. Drink even more fluids if you exercise a lot.
- Stay away from drinks with alcohol or caffeine.
- Do not take diuretic type medications after surgery, unless directed by your health care provider or surgeon.
- Watch for the symptoms of dehydration. These include:
 - A dry, sticky mouth.
 - Dark yellow urine, and not much of it.
 - Dry and sunken eyes.
 - Feeling very tired.
 - Headaches.
 - Weak and woozy.

Dumping Syndrome

Dumping syndrome occurs after operations that allow rapid passage of sweet liquids and foods through the stomach into the small intestine. This includes procedures that bypass the lower stomach and the pyloric valve, such as gastric bypass, and (to a lesser extent) procedures that remove part of the stomach and accelerate gastric emptying, such as sleeve gastrectomy.

Rapid arrival of carbohydrates into the small intestine causes fluids to be drawn in, or “dump” in, to the bowel. Early symptoms of dumping syndrome may include intestinal cramps, nausea, diarrhea, and other GI symptoms. These sugars are absorbed into the bloodstream more quickly than normal and the body has an exaggerated production of the hormone insulin which lowers blood sugar.

Late symptoms of dumping occur after 30-90 minutes and are the result the insulin response dropping blood sugar too low, creating weakness, cold sweats, pounding heart, shakiness and fatigue. In most cases, the desire to avoid dumping syndrome helps patients eliminate excessive sugar intake and is therefore beneficial in causing weight loss

You may be able to prevent dumping syndrome by being careful about what you eat, so sugars and fats must be limited. If your dumping syndrome is severe or does not get better with a change in your diet, your provider may have you try some medicines. Follow your provider's directions carefully.

- **Avoid high-sugar foods** such as cakes, cookies, soda pop, dried fruit, pastries, fruit juices, ice cream and dairy. People with gastric bypass can become lactose intolerant. If you crave something sweet, try foods with artificial sweeteners instead.
- **Avoid greasy, or fatty, foods.**
- Eat 5-6 times a day (such as 3 small meals and 2-3 snacks). This may help keep you from feeling too full after eating. It may also help you avoid diarrhea.
- Talk with the dietitian to help you plan menus that pack good nutrition into several small meals.
- Eat foods that contain protein. Protein is found in red meats, poultry, fish, eggs, and cheese.
- Drink fluids between, not during, meals. Do not drink liquids within a half hour before eating and up to an hour after eating. Fluids fill up your stomach quickly. They also move food even more quickly into the small intestine.

Reactive Hypoglycemia

Low blood sugars may occur after bariatric surgery due to rapid gastric emptying. It is important to eat small frequent protein rich meals long term.

Symptoms of reactive hypoglycemia are:

- Hunger
- Pale Skin
- Weakness
- Shakiness
- Sweating
- Lightheadedness
- Anxiety
- Confusion

AFTER SURGERY: ACTIVITIES AND LIFESTYLE

Bathing

You will be able to take daily showers as you did prior to surgery. Wash over your incisions gently using soap and water. Try to avoid perfumed soaps from the specialty bath store (on your incisions) for the first two weeks following surgery. We recommend Dial soap. When you are finished with your shower, pat the areas dry. Using a cool blow dryer can also help. You do not have to keep your incisions covered, although you may want to if you note any drainage. Please avoid taking tub baths until after your 2-week follow-up visit.

Pregnancy, Fertility, Menstrual Changes, and Sexuality

Women of childbearing age may experience more frequent menstrual cycles due to a change in hormones and ovulation. Menses may resume after surgery and be irregular. Ovulation may improve. Hot flashes may increase in peri-menopausal women.

Women of childbearing age become more fertile after bariatric surgery.

Pregnancy too soon after bariatric surgery can increase the risk of miscarriage, birth defects, and growth delays.

We mandate the use of formal birth control before and for at least 18 months after surgery.

Please see Gynecologist for contraception options.

If pregnancy occurs, it is recommended that you see a high-risk Obstetrician as soon as possible; we can help expedite a referral if needed.

Sex drive changes after surgery, it may increase.
Testosterone levels may rise after surgery as well.

You are cleared to have sexual intercourse after surgery as soon as you feel well enough, typically 2 weeks.

Resume Birth Control Pills immediately after surgery.

Weight Stalls and Plateaus

It is common for your body to have periods of weight stalls even after surgery. You and your body have gone through a lot; the metabolism needs time to catch up and adjust to hormonal changes and new calorie levels. There will be periods in your weight loss where the metabolism has to re-regulate itself to new habits and weight.

Physical Activity

Physical activity is any kind of activity that gets your body moving.

The types of physical activity that can help you get fit and stay healthy include:

- **Aerobic or "cardio" activities** that make your heartbeat faster and make you breathe harder, such as brisk walking, riding a bike, or running. Aerobic activities strengthen your heart and lungs and build up your endurance.
- **Strength training activities** that make your muscles work against, or "resist," something, such as lifting weights or doing push-ups. These activities help tone and strengthen your muscles.
- **Stretches** that allow you to move your joints and muscles through their full range of motion. Stretching helps you be more flexible and avoid injury.

Being active is one of the best things you can do to get fit and stay healthy. It helps you to:

- Feel stronger and have more energy to do all the things you like to do
- Focus better at school or work and perform better in sports
- Feel, think, and sleep better
- Reach and stay at a healthy weight
- Lose fat and build lean muscle
- Lower your risk for serious health problems
- Keep your bones, muscles, and joints strong

Try to get at least 30 minutes of exercise on most days of the week. Walking is a good first choice.

Strengthen your muscles during the week. You do not have to lift heavy weights or grow big, bulky muscles to get stronger. Doing a few simple activities that make your muscles work against, or "resist," something can help you get stronger.

For example, you can:

- Do push-ups or sit-ups, which use your own body weight as resistance
- Lift weights or dumbbells or use stretch bands at home or in a gym or community center

Stretch your muscles often. Stretching will help you as you become more active. It can help you stay flexible, loosen tight muscles, and avoid injury. It can also help improve your balance and posture and can be a great way to relax.

Be sure to stretch the muscles you will be using when you work out. It is best to warm your muscles slightly before you stretch them. Walk or do some other light aerobic activity for a few minutes, and then start stretching.

When you stretch your muscles:

- Do it slowly. Stretching is not about going fast or making sudden movements.
- Do not push or bounce during a stretch.
- Hold each stretch for at least 15 to 30 seconds if you can. You should feel a stretching the muscle, but not pain.
- Breathe out as you do the stretch. Then breathe in as you hold the stretch. Do not hold your breath.

Driving/Traveling

A general rule is not to drive while in pain or on pain medications and may be up to 7-10 days following surgery. There are many reasons for this. However, your surgeon may let you return to driving at 1 week if you:

- Are not taking narcotic pain medication
- Can stomp your foot on the ground without pain (mimic pressing the brake hard)

This decision will vary from surgeon to surgeon. Additionally, it is recommended that you avoid long-distance travel (>2 hours) to help prevent blood clots, (aka DVT) for a minimum of 2 weeks.

Return to Work

Returning to work will vary with each patient depending on the type of procedure, the approach that was used (laparoscopic vs. open), as well as the type of work you do (sedentary vs. physical). For example, it is not unusual for a person who works as a telephone operator at a desk all day to return to work in 1-2 weeks.

On the other hand, a person who works in landscaping lifting plants/trees may need to be out 4 weeks. There are also those patients that are somewhere in between the two extremes. There are some cases in which you can go back sooner doing light duty until your surgeon clears you to go back with no restrictions. Your surgeon can give you a better idea once the two of you have decided which procedure is best for you.

Alcohol Intake, Smoking, Vaping, Chewing Tobacco, Substance Use

It is recommended that you abstain from alcohol intake for a minimum of 6 months after surgery. Alcohol, even in small amounts, may cause you to get drunk more quickly, increasing your risk for injury. Alcohol is high in calories and sugar and may cause low blood sugar, overeating, risky behaviors, or even cause blackouts.

It is recommended that you abstain from all nicotine products after surgery to reduce the risk of gastric ulcers, irritation, and (gastritis) long term.

There is also a small risk of transference of addiction.

AFTER SURGERY: DEALING WITH EMOTIONS

Food for Thought

Bariatric surgery has both physical and psychological effects. All patients need to consider this before and after surgery. Some of the feelings that you may experience include depression, frustration, anxiety, anger, disappointment, loss, helplessness, euphoria, excitement, joy and others. Short-term, the immediate sense of loss of food is often a cause for distress. Along with the rapid reduction in estrogen levels, you may experience symptoms of depression, not unlike the “baby blues”. Long-term, you may experience changes in body image and further awareness of the social implications of obesity.

Bariatric surgery is not a fix for your everyday problems with your spouse, friends, family members, employment, or social life. This surgery will allow you to gain control over one aspect in your life - your weight. Although you have elected to have weight loss surgery to resolve your obesity, weight loss also changes the lifestyle you knew so well. Even with its problems and tensions, obesity was comfortable, simply because it was known. Now, that life is gone. When the reality of the new situation confronts you, it is natural to begin longing for your old way of life. This expresses itself in several stages. These stages include denial, anger, bargaining, depression, and finally, acceptance.

Different people go through these stages differently. It is natural for some patients to experience denial before they have surgery because they focus on the positive. They seem to understand the risks and complications but often do not recall hearing about the emotional and physical stress that follows. After the surgery is performed, some patients try to bargain for extra space in their stomach pouches. They overeat, experience the painful consequences, and may become angry for getting into this situation. This anger may also surface when other discomforts or complications develop throughout the recovery period.

These feelings are difficult to accept or express openly, and depression may follow. Feelings of sadness and crying episodes can be common occurrences.

These emotional responses to surgery are understandable. They cannot be eliminated but must be experienced and worked through. Adapting to changes can take many months. The final stage of acceptance will occur when you feel at peace with the changes brought about by surgery. In the past, one of the best methods for you to cope with life stress may have been for you to eat. This method will no longer be useful, especially while your new stomach pouch is at its smallest. One of the keys to success of this surgery is to learn to replace those comforts with healthy activities. Replacement methods for coping will need to be learned, but this will take time. Try not to sabotage yourself. The experience of such rapid bodily change will likely be accompanied by many emotional ups and downs depending on your age and sex.

There are many things that you can do to help yourself through the recovery and adjustment period. One of the most important aspects is the recognition and understanding of the experience of loss. Expect to have ups and downs as the weeks go by. If you are feeling teary

and depressed, have a good cry. Do not suppress your emotions. They will surface again anyway. Going for a walk or adding other physical activities will help you manage this changing phase of your life. Your adjustment and acceptance will also be eased by the realization that bariatric surgery, with resultant weight loss, will not solve your personal or relationship problems by itself. You cannot expect a perfect body or a perfect life after the weight loss. In fact, many new problems will develop because of the many new opportunities. These will need to be recognized and attended to. Try to be as positive as possible. As new challenges pop up, recognize them, and develop a problem-solving approach.

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 see it. It takes time for your mind to catch up with what your body is doing. It is similar to the phantom limb phenomenon where a person who has lost a limb continues to experience pain or feeling from the missing part, and in fact, feels they still have a limb. As you lose weight, you may be surprised when you see your new reflection in a store window or mirror. You may not feel like this person is you! It is normal to feel like you are still the same size as you were before, but there are some definite ways to help you work at this.

Here are some examples:

- Take a picture of yourself every few weeks during your weight loss and compare the changes.
- Try on clothes in a smaller size. You will be surprised how quickly you will be changing sizes.
- Have someone point out a person in a public place who is about the same size as you. This helps you have a new frame for reference.
- Take measurements of yourself every few weeks and record the results.
- Save an outfit from your pre-op 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 outcome you have been complimented for. Simply say, "thank you."

Counseling

Occasionally, personal adjustment or relationship problems will persist after surgery. These should be addressed in professional counseling. Our experience has shown us that in the period of stress, mild to severe depression is common. You and your support person should look for the signs of depression: persistent sadness, anxious or empty mood, loss of interest or pleasure in activities (including sex), restlessness, irritability or excessive crying, feelings of guilt, worthlessness, helplessness, hopelessness, changes in sleep patterns, decreased energy, fatigue, “feeling slowed down”, thoughts of death and suicide, difficulty concentrating, remembering, or making decisions, persistent physical symptoms that do not respond to usual treatment. Effective drug and psychological treatments are available. With treatment, patients can improve and return to normal quickly.

Support Groups

Group meetings provide peer support, let you share your experiences, and provide periodic guest speakers to expand your knowledge on obesity surgery-related topics. They are great for problem-solving. These support groups are a wonderful opportunity to make new friends and be with people who share what you are experiencing.

It can be reassuring to hear others’ viewpoints on common concerns and to get additional information from the group leader or guest speaker. Research has shown that patients who attend support groups regularly are more successful with their weight loss and mental adjustment than people who do not, especially long term.

See “Before Surgery” tab, page 3 for support group dates and times.

Stress Reducers

- Listen to music.
- Breathe deeply. Inhale through your nose and exhale through your mouth slowly and imagine that you are inhaling calmness and exhaling stress.
- Laugh often. Watch a comedy on video, listen to a tape or read the Sunday funnies.
- Speak up for yourself. People who feel they have some control over some aspects of their life are less subject to stress.
- Let go. Learn the difference between what you can control and what you cannot. Stop worrying about things that are beyond your control. Use that energy to make changes you can.
- Manage your time. To avoid feeling rushed, plan out how much time you will need to accomplish tasks, to get ready to go places, to travel, to eat, etcetera.
- Practice meditation. Spend at least 15 minutes a day relaxing your mind, sit comfortably, breathe calmly and just clear your mind.
- Treat yourself with compassion. Give yourself permission to make mistakes, to play without feeling guilty, to change your mind, and to set aside time only for you.

AFTER SURGERY: LONG-TERM SUCCESS

There are several things you can do to help to continue your weight loss success and maintain your weight loss long-term:

- **Maintain a consistent meal pattern with adequate protein intake.** Protein is crucial to maintaining muscle mass and to heal from surgery. It will also leave you feeling satisfied longer reducing the risk of mindless snacking. Generally, patients should consume 60-80g of protein per day. You may need more based on your body size and gender.
- **Maintain adequate fluid intake.** The goal is to consume at least 64oz of fluid from non-carbonated, unsweetened beverages. If you are very physically active or live/work in a hot environment, your needs will be higher. Avoid: juices, soda, sweet tea, lemonade, Kool-Aid, etc.
- **Avoid drinking with meals and for 30 minutes after meals.** This will help with maintaining protein intake and satiety.
- **Meals should consist mostly of lean protein and non-starchy vegetables** with a small amount of fruit and/or whole grains. Aim to consume protein foods and non-starchy vegetables first followed by fruit and whole grains.
- **Be mindful when you are eating and stop when you feel satisfied.** Do not push past your body's feeling of fullness and overeat. Continued overeating will lead to weight regain and stretching of the pouch.
- **Maintain a consistent exercise regimen** to continue to facilitate weight loss and maintain weight loss. The general recommendation for healthy adults is 150 minutes of moderate-level physical activity per week. That is 30 minutes 5 times per week. You will need more for weight loss. Moderate exercise is a physical activity that raises your heart rate. For example, your breathing quickens, but you are not out of breath. You can carry on a short conversation, but not a lengthy one.
- **Take your vitamin supplements daily** to prevent nutrient deficiencies. The effects of some nutrient deficiencies are permanent even if the deficiency is corrected.
- **Attend regular support groups regularly.** It is well-documented that those who attend regular support groups have greater weight loss

FOLLOW-UP CARE IS A KEY PART OF YOUR TREATMENT AND SAFETY

We cannot overstate the importance of making and attending all your follow-up appointments AND to call your provider if you are having problems. It is also a good idea to know your test results and keep a list of medications you take.

- It is up to you to schedule your follow up appointments, but you will receive reminders via mail/MyChart to make your appointments.
- It is also a good idea to know your test results and keep a list of the medicines and vitamins you take.

WHEN TO CALL:

We recommend you call *for any concerns* after your surgery. Use your intuition. Always call if you are experiencing bleeding, rapid heart rate, shortness of breath, fever, vomiting, uncontrolled pain, inability to keep fluids down or advance the diet, nausea, and difficulty with urination and/or pain in legs.

If you notice any problems or new symptoms, **get medical treatment right away.**

We have multiple locations. You may need to be seen at a different clinic than the one you initially met us at.

- ***GI Surgery Chapel Hill 984-974-0150.***
- ***Hillsborough Clinic 984-215-3500***
- ***Centralized Phone Number for ALL Locations: 984-974-6519***

After Hours Emergency Phone Number

- ***984-974-1000 Ask to page the on-call provider with SRZ.***

Nutrition Information

NUTRITION INFORMATION:

Purpose: THIS PLAN AND THE BARIATRIC NUTRITION BEHAVIORS ARE FOR INDIVIDUALS WHO ARE PREPARING FOR OR HAVE HAD WEIGHT LOSS SURGERY. BARIATRICS IS A SPECIALTY AREA IN MEDICINE THAT FOCUSES ON TREATING OBESITY

Bariatric Nutrition Goals

- Follow a consistent meal pattern. Eat 3 small meals and 1-2 snacks.
 - Do not skip meals and do not graze.
 - Do not go long periods of time (more than 4hr) without eating.
- Have protein with every meal and most snacks. Aim for 60-80 grams of protein daily.
- Drink at least 64oz of water daily.
- Avoid all sugary drinks (Examples: juice, soda, sweet tea, lemonade)
- Avoid carbonated drinks. (Examples: soda, seltzer, sparkling water)
- Practice mindful eating behavior:
 - Eat slowly, take small half-sized bites and chew each little bite 20-30 times.
 - Stop eating when your stomach is satisfied and no longer hungry (before you feel full).
- Practice not drinking with meals, wait 30 minutes after the meal before drinking.
- Start a chewable bariatric multivitamin (approved by dietitian).
- Exercise – Aim for 30 minutes of activity outside of your normal routine most days of the week. Start small if you are sedentary or have limited mobility and increase as you can.
- Keep a food journal.

The Bariatric Nutrition Goals are eating habits patients need to practice and be successful with prior to having bariatric surgery. These habits are what will lead to long-term success after bariatric surgery. Remember, the surgery is a tool to help you lose weight. You need to put in the work by making the right food choices and getting regular exercise in order to be successful long term.

You must show progression and success with the nutrition goals prior to surgery.

We cannot approve you for surgery until you achieve these goals.

What are Protein Foods?

Anything that comes from an animal will count as protein.
There are some plant sources of protein as well.

Foods high in protein include:

- chicken, turkey, beef, pork, venison, eggs,
- fish, shellfish and seafood,
- dairy products like cheese, Greek yogurt, cottage cheese, low-fat milk,
- nuts and seeds (1/4 cup daily limit) or peanut butter (2 Tbsp daily limit),
- beans like pintos, refried beans, black beans, field peas, chick peas, black-eyed peas, navy beans, soybeans (edamame), tofu and
- Protein shakes can step in as a quick and easy meal replacement or snack when there is no time to grab something to eat. Protein shakes should have 20-30g of protein, less than 10g of sugar, and less than 5g of fat.

For snacks, pair a protein food a fruit or non-starchy vegetable. Some good snack options would be: cheese with fruit or non-starchy vegetables, chunk of pineapple wrapped in a slice of ham, peanut butter on apple slices, low fat Greek yogurt and fresh fruit, a deli roll up (slice of deli meat and slice of cheese) or a protein shake. Non-starchy vegetables are any vegetable that is not corn, peas, potatoes or winter squash. Stick with things like cucumbers, green beans, zucchini, Brussel sprouts, asparagus, and greens. When in doubt, ask the dietitian!

Avoid highly processed deli meats. It's meat that is ground up and molded together like bologna, salami, pepperoni, Spam, liverwurst, chicken loaf, olive loaf, Vienna sausages, treat meat, etc. It's best to avoid prepackaged deli meat and go to the deli counter to have it sliced for you. If you have high blood pressure or heart failure it is best to limit these types of meats due to the high sodium content.

Bariatric Nutrition Goals: Why do we need to follow them?

The bariatric nutrition plan is a protein-focused, limited carbohydrate lifestyle. Carbohydrates are limited because they take up space and may prevent you from getting in the protein that you need. If you sit down to a meal and start with the carbohydrates first, you will get full and not have room for the protein. Patients practice following the nutrition plan before surgery to:

- start losing weight;
- practice the bariatric eating style of several small meals a day and learn which foods and drinks to enjoy and which ones to avoid;
- “test drive” the bariatric lifestyle to give you a chance to experience the required eating habits to follow after surgery and whether this is something you can adopt long-term as a new lifestyle, and
- Demonstrate that you can follow the diet and make appropriate food choices. We want to know that you can follow the bariatric lifestyle before having surgery.

After surgery, your stomach is going to be significantly smaller and the most important thing to put in that small stomach is protein-rich food. Try to have protein at every meal and snack. Most patients need 60-80g of protein each day to help the stomach heal and to stay healthy. Since the stomach will be much smaller than the stomach you used to have, you will only be able to consume a small amount of food at any one time. This means you will have to eat several small meals every 3-4 hours in order to get enough protein in to reach your daily protein goal of 60-80g.

Drinking during a meal will take up space in your new stomach and prevent you from getting in adequate protein. After eating your small meal, give your stomach about a half-hour to start emptying out before you drink. Waiting to drink after meals will help prevent nausea and reflux.

Patients who have had the surgery report that instead of feeling “full” after eating, they can tell their stomach is full when they feel a pressure in the chest at the top of the stomach. Patients have learned that when they feel that pressure, one more bite will over-fill their stomach and make them uncomfortable or nauseous. If you overfill your stomach, you will likely throw up.

How to Track Protein Intake?

Most patients will need 60-80g of protein each day in order to lose weight safely. Your dietitian will let you know if you need a higher amount, based on your height. During the period of rapid weight loss after surgery, eating 60-80g of protein will help protect your muscle mass and keep you in your best health. Most everything in your body that is not fat or bone is made of protein! Eating enough protein along with your multivitamin may also help prevent hair loss. Tracking your protein intake will help you gauge whether you are getting 60-80g of protein daily. No need to look up any fruit, vegetables or carbs/starchy foods since these contain little to no protein. You can use a notebook as a food journal or alternatively may try an app to help track protein intake.

- One ounce of cooked meat/fish/poultry contains 7g of protein,
- a large egg has 6g, an extra-large egg has 7g,
- 2 Tbsp peanut butter or 1/4 cup of nuts has 7g,
- 1/2 cup of pinto beans has 20g,
- 1 ounce of cheese has 7-8g (about the size of a pair of dice, 1/4 cup shredded cheese or one deli slice of cheese).
- If you do not have a food scale, you can estimate the amount of protein in meat by comparing it to a deck of playing cards; the size and thickness of a deck of cards roughly represents about 3 ounces of meat, or (7g x 3oz) 21g of protein.

It is important to meet your protein goal and not consistently exceed it as this may slow weight loss.

Practice Mindfulness

Practicing mindful eating will help avoid overfilling your new stomach after surgery.

Mindfulness is

- **Eating slower**, put your fork down in between bites and try to take 20-30 minutes to eat your small meal.
- **Take smaller bites**, or about a half forkful at a time. Some patients use child-sized utensils to help them downsize their bite.
- **Chew** each little bite 20-30 times, until it becomes liquid mush. A benefit of chewing the heck out of every bite is that you will not feel the need to drink during a meal. Patients also state they eat less because they get tired of chewing!
- **Stop eating when you are satisfied** and no longer hungry, which is before you feel full. It takes your stomach about 15-20 minutes to tell your brain that it is full, so if you eat slowly and stop when your stomach is no longer hungry, in 20 minutes you will feel full. For example, at Thanksgiving dinner how full did you feel when you finished eating compared to how full you felt 20 minutes later.

Hydration: Drink plenty of fluids

Drinking plenty of fluids will help you stay healthy and lose weight. We recommend patients drink at least 64oz of water every day, unless your doctor has placed you on a fluid restriction for medical reasons. Try to drink water primarily, but you may also add sugar-free flavor packets to water. Beverages like PowerAde Zero, Gatorade Zero, Sugar-free Natures Twist, and others are allowed if they are non-carbonated and sugar-free.

Staying well hydrated will also help prevent constipation. The body needs water to run metabolism, but when people do not drink enough, the body will use your large intestine as a reservoir and pull water from your stool, causing constipation.

Eating a high protein diet with little fiber and taking pain medications after surgery may also contribute to developing constipation. Many patients will work to avoid constipation by taking a daily stool softener and/or powdered fiber like MiraLAX or Benefiber after surgery. Using a fiber-enriched protein shake is another option to increase dietary fiber.

Sometimes people think they are hungry, but are actually thirsty. Practice sipping on water throughout the day to stay hydrated except during meals and 30 minutes after eating. Please do not use straws- they will cause you to drink too much, too fast!

Adopt a Regular Exercise Routine

There is a big difference between physical activity and exercise. Physical activity is the things we do every day to increase activity (taking the steps vs the elevator, parking farther away, playing with your children). Exercise is that time you designate to some sort of activity that is outside of your daily routine. This would include going for a walk, working out at the gym, participating in exercise videos off of YouTube. Ultimately, you want to increase your heart rate. A good measure would be the “talk test”. If you can carry on a lengthy conversation, the exercise needs to be more intense. If you can’t talk at all, it’s too intense. Aim for somewhere in the middle where you could have a short conversation with someone, but nothing lengthy.

Continuous, non-interrupted aerobic exercise like walking, biking, swimming, using a treadmill and/or elliptical will burn fat stores and increase weight loss. Strengthening workouts like yoga, Pilates, stretchy bands and weights will help strengthen and build muscle, which will help you lose inches.

During the period of rapid weight loss after surgery, it is very important to exercise to help preserve your lean tissue stores like muscle and organ tissue. Patients who lose the most weight after bariatric surgery are regularly exercising most days of the week and following the bariatric diet.

Reading Nutrition Food Labels

Learning to read nutrition food labels will help you easily decide whether the protein shake or bag of trail mix you are contemplating buying in the grocery store will help you lose weight.

Choose food and drinks having less than 10g of sugar and 5 or less grams of fat.

The information on a Nutrition Facts label represents the amount in 1 serving. If you eat more or less than the serving size, you will have to adjust accordingly. For example:

- 1 cup of this product = 160 calories.
- 2 cups of this product = 320 calories.
- 1/2 cup of this product = 80 calories.

The same is true for all values listed on the label.

Calories per serving can help you determine how an item may fit into your plan. Generally, most patients need 800-1200 calories/day depending on activity level.

Fat is very high in calories and should be limited to 30-40g of Total Fat per day. Saturated and Trans Fats should be limited as much as possible due to their negative effects on heart health.

Total Carbohydrate: Limit to 15-30g per meal
Total Fiber: 25-30g/day
Total Sugars: less than 5g per serving
Sugar Alcohols (not pictured in this example)

- They have less calories than sugar, but too many can cause diarrhea. Use Caution!

Focusing on **protein** intake is a must! The general recommendation is 60-80g/day. If you eat 6 times per day, that is at least 10g of protein at each meal/snack. You may need more, which your Registered Dietitian can help you figure out.

Nutrition Facts	
2 servings per container	
Serving size	1 cup (140g)
Amount per serving	160
Calories	
	% Daily Value*
Total Fat 8g	10%
Saturated Fat 3g	15%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 60mg	3%
Total Carbohydrate 21g	8%
Dietary Fiber 3g	11%
Total Sugars 15g	
Includes 5g Added Sugars	10%
Protein 3g	
Vitamin D 5mcg	25%
Calcium 20mg	2%
Iron 1mg	6%
Potassium 230mg	4%

*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2000 calories a day is used for general nutrition advice.

Protein Shakes and Supplements

For the first few months after surgery, most patients need at least one protein drink per day to help reach their 60-80g protein target range by the end of the day. Here are some tips for picking a good option:

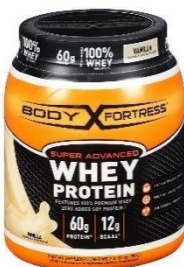
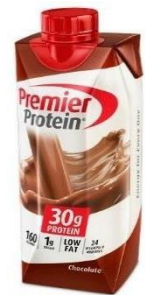
- Choose a protein shake that provides 20-30g of protein with a low calorie content. For example, 30g of protein for 160 calories is better than 10g of protein for 200 calories.
- Whey protein is preferred; however plant based options are also available. If you are lactose intolerant, look for a protein powder with whey protein isolate as the only protein source.
- Flavored, unflavored, and even clear liquid protein shake options are available. It is convenient to have both ready-to-drinks shakes and protein powder mixes.
- To save money, make you own protein shakes with whey protein.

As a general guideline, choose a protein supplement with:

- 20-30g of protein,
- less than 10g of carbohydrates
- 5g of fat or less

Here are some protein supplement options:

- **Premier Protein Shakes** – 30g protein, 160 calories
- **Premier Oats Protein Shakes** – 20g protein, 150 calories, 7g fiber
- **Premier Clear**- 20g protein, 90 calories, clear liquid
- **GenePro Whey Powder**- 30g protein, 59 calories/ scoop (unflavored)
- **Ensure Max Protein/Boost Max** – 30g protein, (150-160) calories (must be MAX)
- **Fairlife Core Power** – 26g protein, 170 calories
- **Fairlife Nutrition Plan** – 30g protein, 150 calories
- **Shamrock Farms Rockin' Protein** – 20g protein, 90 calories, clear liquid
- **Body Fortress Super Advanced Whey Powder**- 30g protein, 190 calories
- **Orgain Organic Protein Plant Based Powder**– 21g protein, 150 calories/ 2 scoops
- **Body Fortress Whey Protein Powder** – 30g protein, 200 calories/scoop
- **GNC 100% Whey Protein Powder** – 24g protein, 150 calories/ scoop
- **GNC Total Lean shake**- 25g protein, 180 calories, 8g fiber
- **Pure Protein Natural Whey Powder** – 23g protein, 130 calories
- **Isopure Low Carb Protein Powder** – 25g protein, 110 calories/ scoop
- **Syntrex Nectar Protein Powder** – for fun flavors www.si03.com
- **Food Lion Whey Protein** – 30g protein, 170 calories (unflavored)
- **Unjury Protein Powder** – 21g protein, 100 calories/scoop www.unjury.com
- **Walmart Equate High Performance Protein shake** - 30g protein, 160 calories
- **Walmart Equate Whey Protein Powder**- 30g protein, 170 calories/ 2 scoops
- **Quest Protein shake**- 30g protein, 160 calories



Bariatric Multivitamins and Supplements

Bariatric surgery increases a patient’s needs for certain vitamins and minerals. You will need to take a bariatric multivitamin for the rest of your life. It is extremely important that you take a bariatric multivitamin that will meet all of your nutritional needs to avoid developing nutritional deficiencies. There are many different bariatric multivitamins out there on the market, but unfortunately, many will not meet all of your nutritional needs. We follow the American Society for Metabolic and Bariatric Surgery (ASMBS) guidelines to ensure you receive a complete set of vitamins and minerals after undergoing bariatric surgery.

While your stomach is healing, vitamins should be chewable, liquid or crushed for 6 months with gastric bypass and 3 months with gastric sleeve.
DO NOT TAKE GUMMY MULTIVITAMINS.

Below is a list of multivitamins that are safe and meet the ASMBS guidelines.

Name of Multivitamin	Daily Amount	Additional Supplements to Take	Where to Purchase
Bariatric Advantage Advanced Multi EA	2	Calcium	Bariatric advantage.com
Bariatric Advantage Ultra Solo	1	Calcium	Bariatric advantage.com
Bariatric Choice All-in-One	4		Bariatric advantage.com
Bariatric Fusion Complete	4		BariatricFusion.com
Bariatric Fusion Drink Sticks (mix with water)	2	Iron	BariatricFusion.com
Bariatric Pal Multivitamin	1	Calcium	BariatricPal.com
Celebrate Multi-Complete with iron	2	Calcium	CelebrateVitamins.com
Celebrate Drink Sticks (mix with water)	2	200mg Calcium, iron	CelebrateVitamins.com
Opurity Bypass & Sleeve Chewable	1	Calcium, iron	Unjury.com
ProCare Bariatric Chewable	1	Calcium	ProcureNow.com

If you are interested in taking a multivitamin not on the list, ask your dietitian if it meets ASMBS guidelines before purchasing it.

Some of the multivitamins on the chart are 1-a-day, 2-a-day or 4-a-day. The 4-a-day multis

deliver complete nutrition without the need for additional supplementation. The 1-a-day and 2-a-day multi will require a chewable calcium supplement and/or iron.

Tips for choosing a bariatric multivitamin:

1. To narrow down your search, start with the second column in the chart named “Daily Amount.” Ask yourself how many vitamins a day are you willing and able to take.
2. You may want to order samples from the different bariatric vitamin companies to find one that tastes good to you before ordering an entire month supply of the multi.
3. When you decide on a multivitamin, please order a **chewable multi with 18mg (men) or 45mg (women) of iron.**
4. Begin taking the bariatric multivitamin 2 weeks prior to surgery.

Calcium Supplements

If you choose a 1-A-Day or a 2-A-Day style bariatric multivitamin, you will have to supplement it with calcium.

- You will need 1200-1500mg daily
- Calcium citrate is preferred. If your calcium supplement contains calcium carbonate, take it with your meal
- Calcium is best absorbed when spread out throughout the day
- Do not take iron and calcium at the same time. Separate by 2 hours

Type	Daily Amount
Bariatric Advantage Calcium Chewy Bite	2-3 per day
Celebrate – Calcium plus 500, Chewy Bite	2-3 per day
Citracal Pearls or Gummies (calcium carbonate)	6 per day
Opurity Calcium Citrate	4 per day
Viactiv chews (calcium carbonate)	2 per day
Wellesse Liquid Calcium	2 Tbsp.

Iron Supplements

- Check your multivitamin. Some multivitamins already contain your daily dose of iron
- After bariatric surgery, women will need 45 mg and men need 18 mg of iron daily
- Failure to take the required iron may lead to anemia and require an iron infusion
- Do not take iron and calcium at the same time. Separate by 2 hours
- If you need additional iron, some options include:
 - Bariatric Advantage Chewable
 - Celebrate Vitamins Chewable
 - Wellesse Liquid Iron

American Society for Metabolic and Bariatric Surgery (ASMBS) Guidelines for nutrition supplementation following weight loss surgery:

Type	Amount
Multivitamin NO GUMMIES	200% DRI for most nutrients Should also contain: <ul style="list-style-type: none"> • Thiamin – at least 12 mg • Folate – 400-800 mcg • Zinc – 8-22 mg • Copper – 2 mg • Magnesium • Selenium
Calcium	1,200-1,500 mg per day
Vitamin A	5,000-10,000 IU per day
Vitamin D	3,000 IU per day
Iron	Males: 18 mg per day Females: 45-60 mg per day
Vitamin B12	350-1,000 mcg per day (sublingual)

Nutrition Resources

- The Emotional First + Aid Kit: A Practical Guide to Life after Bariatric Surgery by Cynthia L. Alexander, PsyD.
- 50 Ways to Soothe Yourself without Food by Susan Albers, PsyD.
- <http://www.obesityaction.org> Your Weight Matters Magazine and other resources on obesity.
- www.bariatricfoodie.com
- Obesityhelp.com

Contact UNC Dietitians via MyChart

Nutrition Education Class

BARIATRIC NUTRITION EDUCATION CLASS

Purpose: THE BARIATRIC NUTRITION CLASS IS A REQUIRED ELEMENT OF THE PROGRAM. THE CLASS COVERS THE PRE-SURGERY DIET BEFORE BARIATRIC SURGERY AND THE 5-STAGE DIET PROGRESSION TO FOLLOW WHILE THE STOMACH IS HEALING.

Pre-Surgery Diet (“Liver Shrink Diet”)

You will follow a 14-day pre-surgical diet. The surgeon requires patients follow this liver shrink diet so that they may more easily get behind your liver to operate on your stomach with laparoscopic instruments. The diet is high in protein and very low in carbs. If you are diabetic, watch your blood glucose levels closely - check your blood sugar 4 times a day. You may need to reduce insulin dosage.

- 1. Choose a protein supplement:** Choose one that is high in protein with a low amount of carbohydrate and fat.

Recommended guidelines for protein shake:

Calories	Protein	Carbohydrates	Fat
Less than 200 calories	20-30g	Less than 10g	5g or less

- 2. Drink 3 protein shakes every day**

- 3. Eat only 1 small meal consisting of:**

- 4-6 oz. protein: poultry, fish, lean pork, lean beef, shrimp, tofu, 3 eggs
- 1 cup of non-starchy vegetables
Non-starchy vegetables are any vegetable you enjoy except the starchy ones like potatoes, corn and sweet green peas.

Examples of non-starchy vegetables:

Asparagus, Broccoli, Brussel Sprouts, Cabbage, Cauliflower, Celery, Cucumbers, Eggplant, Greens, Green Beans, Lettuce, Kale, Mushrooms, Okra, Onions, Peppers, Radishes, Spinach. Squash, Zucchini

- 4. Avoid all high carbohydrate foods like:**

Fruit, Bread, Pasta, Rice, Potatoes, Corn, Peas, Cereal, Grits, Oatmeal, Sweet potatoes
Optional: Sugar free Jell-O or ice pops, but **not** pudding. Sugar free flavored coffee creamer or half and half.

- 5. Stay well hydrated.** Aim for 64oz of fluid daily.

- Choose water or sugar free, noncarbonated beverages.
- Water, Crystal Light, sugar free beverages (flavored waters, Gatorade Zero, PowerAde Zero, etc.), low sodium broth, decaf coffee, hot tea, unsweetened tea
- Do not add sugar, agave or honey to your beverages. Artificial sweeteners like stevia, Splenda, and Equal are okay.

- 6. Begin taking your BARIATRIC chewable multivitamin** when you begin the Pre-surgery diet.

Diet Progression Stages After Surgery

This diet is a progression of food textures the stomach can tolerate after surgery. As your stomach heals, it will slowly be able to tolerate a wider range of food textures.

Stage 1: Clear Liquids – while in the hospital

- Once your doctor says it is okay, you will be given small amounts of sugar free/non-carbonated beverages. You will start with sipping 1 ounce per hour and slowly increase it to 3 ounces per hour by the end of the day.
- Clear liquids include water, broth, sugar-free Jell-O, sugar-free popsicles, caffeine-free unsweetened teas, and sugar-free drink mixes (Crystal Light).
- To prevent nausea and vomiting, take small sips, do not gulp. **Drink slowly!**

Stage 2: Protein Shakes – discharge from the hospital until your follow-up visit with your surgeon, about 10 days.

- Once you can tolerate 3 ounces of clear liquids an hour, you will start to drink protein shakes. You will go home on protein shakes. You should also drink plenty of clear liquids to stay well hydrated. Drink 3-4oz of fluid (combination of shakes and liquids) every hour while you are awake.
- **TRACK YOUR PROTEIN INTAKE!**
- Protein shakes are your best choice during this phase and are the easiest way to meet your protein goal.
- Do not drink juice or other sugar sweetened beverages (soda, sweet tea, Kool-Aid, Gatorade). Beverages should have less than 5 calories per serving.
- **Do not add sugar, honey or agave** to foods and beverages. It is okay to add sugar substitutes such as Splenda (sucralose), Stevia, or Equal (aspartame).



Your goal is to drink 32-36 oz of water plus enough protein shakes to get 60-80g of protein for women and 80-100g for men. Please stick to this plan until your clinic visit with your provider.

DAILY GOALS:
PROTEIN: 60-80g/day
FLUID: 32-36oz/day

Stage 3: Pureed Foods

- **START ON DAY 11**
- **Pureed (blenderized) foods** should have no lumps or bumps. Nothing you should have to chew. You should be able to put pureed foods in your mouth and swallow them.
- Eat 6-8 small meals per day. Plan to eat every 3 hours.
- Meal size will be no bigger than ¼ cup
- **TRACK YOUR PROTEIN AND FLUID!**

- Do not skip meals. You may not be hungry. Eat by the clock.
- Eat slowly and take small bites. Stop eating before you feel full. If you keep eating, you may have pain, heartburn or vomiting.
- **Do not eat and drink at the same time.** Wait 30 minutes after eating your small meal to begin drinking small amounts of liquids.

High-Protein Pureed Food Options: Use a blender/food processor for eggs, soups, stews, and beans.

- Light or Greek style yogurt with no fruit chunks (there is more protein in Greek yogurt)
- Small curd cottage cheese or low-fat ricotta cheese
- Pureed eggs
- Pureed soft tofu
- Refried beans (low fat or nonfat), pureed beans, or pureed bean soup
- Pureed meats or fish (poultry, tuna fish) – baby food meat is best
- Pureed soups and stews (should be protein based, add protein powder if needed)
- Pureed vegetables plus unflavored protein powder

DAILY GOALS:
PROTEIN: 60-80g/day
FLUID: 64oz/day

Foods to Avoid:

- Applesauce and baby food fruit
- High carbohydrate foods like mashed potatoes, grits, and oatmeal
 - These foods are high in carbohydrates and low in protein.

Other tips:

- Include a **protein** shake to help you reach your protein goal.
- **Add protein** by stirring protein powder into pureed food choices.
- **Add moisture** to dry foods with small amounts of gravy, broth, or milk

Sample Meal Plan for Stage 3 - Pureed

Breakfast	Snack	Lunch	Snack	Dinner	Snack
¼ cup pureed eggs	¼ cup cottage cheese	¼ cup pureed chicken salad	¼ cup pureed beans with melted cheese	¼ cup Greek yogurt	¼ cup pureed tuna salad

Stage 4: Soft and Moist Foods

- You can now start to eat cooked **soft-solid, moist foods**. Foods should be soft enough to cut with a fork.
- Take small bites. Chew food well. Eating slowly will help you to know when to stop so you don't overeat. A meal should last about 20 minutes.
- Keeping a food journal can help you to track your protein and tolerance of foods.
- Eat 5-6 times per day on a set schedule. Meals will be small (¼ - ½) cup.
- Eat protein-rich foods first. Vegetables second. Fruit and carbohydrates last.
- Protein shakes can help you meet your protein goal.

DAILY GOALS:
PROTEIN: 60-80g/day
FLUID: 64oz/day

Good soft-solid protein options are:

Food	Serving Size	Protein per Serving
Beans (black, pinto, navy, etc.) & Lentils	½ cup	6-9 g
Cheese, most types (except cream cheese)	1 oz.	7g
Cottage & Ricotta Cheese	½ cup	14g
Deli meats (chicken, turkey, ham, roast beef)	1 oz.	7g
Edamame (soybeans), shelled	½ cup	14g
Eggs	1	6g
Fish & Shellfish (shrimp, crab), cooked	1 oz.	7g
Meats – ground beef, turkey, chicken	1 oz.	7g
Peanut butter (smooth)	1 Tbsp.	4g
Tofu	¼ cup	5
Greek Yogurt	1 container (5.3 oz.)	10-15g

oz. = ounce; cooked ounces for meat, fish, and poultry are a weight.

Foods to Avoid:

- High carbohydrate foods such as bread, cereal, crackers, potatoes, pasta, rice, chips, grits, snack foods. These foods are easy to overeat and keep you from meeting your protein goal.
- Be careful with raw fruits and vegetables, nuts, and tough meats like steak and pork as they may get stuck.
- Foods high in sugar and fat may cause dumping syndrome.

Sample Meal Plan for Stage 4 – soft and moist foods

Breakfast	Snack	Lunch	Snack	Dinner	Snack
1 egg with cheese	½ cup cottage cheese	½ cup chicken salad	½ cup Greek yogurt	1-2 oz. fish with ¼ cup broccoli	1 oz. cheese

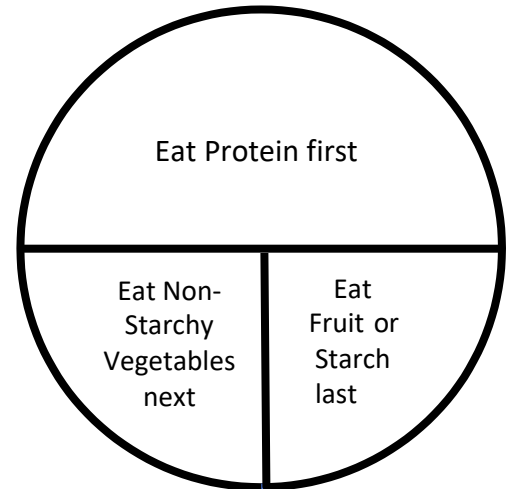
Stage 5: Regular-textured Foods

This will start about 6-8 weeks after surgery. Slowly add fresh fruit and vegetables, nuts and tougher meats like beef and pork, as tolerated. These important guidelines will help you continue to lose weight and stay healthy.

General Guidance

- Eat 5-6 times per day – every 3 hours
- You may need to set a timer or alarm clock to help remind you when to eat.
- Eat slowly! It should take you about 20 minutes to finish a meal.
- Be sure to take small bites and chew well.
- Eat protein first, followed by a non-starchy vegetable.
- Use small bowls and plates to help with portion control.
- Listen to your stomach and stop eating when you are full.
- Read food labels!
- Keeping a food journal may help you track your protein intake, as well as identify any food that bothers you or causes problems.

The Bariatric Plate



Hydration

- Aim to drink **64 oz** of sugar free, noncarbonated, caffeine free fluids daily.
- Do not drink while eating and wait 30 minutes after the meal before drinking

Protein

Following weight loss surgery, it is important to eat enough protein. You should aim to eat a **minimum of 60-80g** of protein per day. Be careful you do not regularly exceed the upper protein limit because excessive amounts of protein can slow weight loss.

Protein is best absorbed when spread evenly throughout the day. If you are eating 5-6 small meals per day, aim for at least 10g of protein at each meal. Do not eat or drink more than 30g of protein in a single sitting.

Sample Meal Plan

Breakfast	Snack	Lunch	Snack	Dinner	Snack
1 egg with cheese	½ cup cottage cheese with ¼ cup fruit	½ cup chicken salad with cucumber slices	½ cup Greek yogurt with ¼ cup almond	2-3 oz. fish with a small tossed salad	1 oz. cheese

Weight loss plateaus

If weight loss begins to stall after a few or more months after surgery, check to make sure you are not eating excessive amounts of protein. Since by now you have already lost a significant amount of weight, your body is not working as hard to move around with activities of daily life. To restart your weight loss progress, you will have to increase exercise to help your body burn more calories.

Foods to Limit or Avoid

- Foods high in sugar and/or sugar alcohols can trigger Dumping Syndrome.
- High carb foods like grits, oatmeal, potatoes, rice, pasta, cereal, chips/snack foods will slow down weight loss and can cause weight regain! Some starchy foods can swell up in the stomach and cause pain and discomfort.
- Liquid calories like juice, sweet tea, coffee drinks are high in sugar and are a “sneaky” way to drink far too many carbs and calories. Sweetened drinks can also cause Dumping Syndrome.

Reading Food Labels to Avoid Dumping Syndrome

Read food and drink labels to limit sugar and sugar alcohols that may trigger Dumping Syndrome.

Nutrition Facts	
Serving Size: 1 bar (3oz. / 85g)	
Servings Per Container: 12	
Amount Per Serving	
Calories 350 Calories from Fat 110	
% Daily Value*	
Total Fat 12g	18%
Saturated Fat 10g	49%
Trans Fat 0g	
Cholesterol 15mg	5%
Sodium 250mg	10%
Total Carbohydrate 21g	7%
Dietary Fiber 0g	0%
Sugars 9g	
Sugar Alcohol 8g	
Protein 32g	64%
Vitamin A 0% • Vitamin C 0%	
Calcium 15% • Iron 15%	
*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:	
Calories: 2,000 2,500	
Total Fat	Less than 65g 80g
Saturated Fat	Less than 20g 25g
Cholesterol	Less than 300mg 300mg
Sodium	Less than 2,400mg 2,400mg
Total Carbohydrate	300g 375g
Dietary Fiber	25g 30g
Calories per gram:	
Fat 9 • Carbohydrate 4 • Protein 4	

Check the serving size

How much sugar?
Should have less than 10g
Does it have sugar alcohols?
Add sugar + sugar alcohol =
should be less than 10g/meal

Check protein content
Try to get at least 10g protein
per meal

Next Steps Leading to Bariatric Surgery

The next steps after completing the Bariatric Nutrition Class are:

- An appointment with the program psychologist for evaluation.
- A follow up with the dietitian (RD) to assess readiness for surgery, whether patients accomplished the bariatric dietary behaviors and can demonstrate bariatric dietary compliance. Once these tasks are accomplished, the dietitian can grant RD clearance for surgery.
- A follow up with Tara Zychowicz, NP, to assess completion of medical requirements, labs and tests.
- After insurance approves the surgery, the patient will meet with their surgeon to book a date for surgery.
- Remember to start the Pre-surgery diet and start taking your bariatric multivitamin 2 weeks before surgery.