## UNC BARIATRIC SURGERY

A Guide to Surgical Weight Loss















# WELCOME

## INITIAL EVALUATION Date of Initial Evaluation \_\_\_\_\_ Height:\_\_\_\_\_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) Weight to lose **BEFORE** surgery:\_\_\_\_\_\_lbs. **BODY MEASUREMENTS:** Neck: \_\_\_\_\_Arm: \_\_\_\_ Chest:\_\_\_\_\_\_Thigh:\_\_\_\_\_ Blood pressure: \_\_\_\_\_

Pulse: \_\_\_\_\_

#### BARIATRIC SURGERY CHECKLIST

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

#### Insurance

☐ SEE SURGEON



- 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

If you have specific questions about coinsurance, deductibles or out-of-pocket expenses call your insurance carrier or the UNC Health financial counselor for upfront surgery cost questions at 984-974-5899

#### Appointments (in order) ☐ LAB WORK TEAM VISIT: DIETITIAN AND NP DATE 1:1 INITIAL APPOINTMENT EGD (ENDOSCOPY) DIETITIAN 1:1 FOLLOW UP APPOINTMENT ADDITIONAL TESTING SLEEP STUDY: DATE ONE GROUP NUTRITION CLASS BEFORE SURGERY (PAP therapy required in moderate to severe sleep apnea) DATE MEET WITH PSYCHOLOGIST (we will call you) CXR: Name\_\_\_\_\_ OTHER/CLEARANCES: Phone \_\_\_\_\_ CARDIAC \_\_\_\_\_ Date\_\_\_\_\_ DIETITIAN FOLLOW-UP AFTER PSYCH EVAL **Support Group** ATTEND AT LEAST TWO SUPPORT GROUP MEETINGS NP FINAL CLEARANCE VISIT (after all other necessary Date\_\_\_\_\_ testing and clearances completed) Date\_\_\_\_\_

☐ JOIN OUR FACEBOOK PAGE

**UNC WLS Support Group** 

#### **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	WEIGHT	lbs.	% WT. LOSS
3MTH POSTOP WITH NP DATE	WEIGHT	lbs.	% WT. LOSS
6MTH POSTOP WITH NP AND DIETITIAN DATE	WEIGHT	lbs.	% WT. LOSS
1YR POSTOP with NP and DATE	WEIGHT	lbs.	% WT. LOSS
18MTH POSTOP with NP and RD DATE	WEIGHT	lbs.	% WT. LOSS
2YR POSTOP WITH MED OBESITY MD or PA (As return if established, as new if not.)  DATE	WEIGHT	lhs	% WT. LOSS
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	WEIGHT		

#### 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.

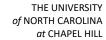
An important part of weight loss surgery is the Mental Health Visit. This visit is required by the UNC Weight Loss Surgery Program because weight loss surgery affects your physical body and your emotional/mental life. Usually, the Mental Health Visit will last 1 hour, and you will discuss your health 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 adjust to all 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 discuss them during your Mental Health Visit.

Sincerely,

Christine M. Peat, PhD Licensed Psychologist





DEPARTMENT OF PSYCHIARTY CAMPUS BOX 7160 CHAPEL HILL, NC 27599-7160

#### **Mental Health Letter**

To prospective UNC Bariatric Surgery candidates:

If you are currently working with a mental health provider outside of the UNC Health system, we request that this provider submit a letter on your behalf. The mental health evaluation will not be complete until a letter is received from your treatment provider(s).

The mental health letter should be on letterhead and have a signature from your provider not simply their typed name. The 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 or about your treatment with them.

We ask for this letter as a source of additional information (just like other healthcare records) that helps us better understand your personal history. Mental health conditions like anxiety or depression do not stop you from being a candidate for weight loss surgery. We only want to ensure that any ongoing conditions do not negatively affect your surgery journey, and a letter from your mental health provider(s) helps us determine that. The letter may not be the only requirement to complete the mental health component, but it is required if you are working with provider(s) outside the UNC Health system. If any additional information or steps are necessary to complete the mental health component, your psychologist will inform you of those steps.

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

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



### STAY WELL CONNECTED



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

If you need help with My UNC Chart, please call (888) 996-2767



#### **SCHEDULING CONTACTS**

#### **Bariatric Nurse Practitioner:**

Name	Location	Phone	Clinic Day/s					
Tara Zychowicz	UNC Hillsborough	984-215-3501	Daily					

#### **Bariatric Nurse Coordinator:**

Name	Location	Phone	Clinic Day/s				
Lisa Prestia	UNC Memorial	919-843-1258	Daily				

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

Name	Location	Phone	Clinic Day/s
Susan Strom	UNC Hillsborough	984-215-3501	Mondays
			Wednesdays
			Thursdays
			Fridays
Yenssi Williams	UNC Hillsborough	984-215-3501	Daily

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

	Location	Phone	Clinic Day/s						
Offered In Person	Hillsborough	984-215-3501	1 <sup>st</sup> & 3 <sup>rd</sup> Friday of the month						
Class is 2pm-3pm; arrive by 1:45pm. Bring a pen and this informational binder with you.									

#### **Bariatric Clinic Staff Nurse:**

Name	Location	Phone					
Alise Erental-Fernandes	Hillsborough	984-215-3501					

#### **Psychologists:**

Name	Location	Phone	Clinic Day/s					
Dr Peat	Vilcom	984-974-5217	Mondays and Thursdays					
Dr Forneris	Hillsborough	984-215-3501	Mondays and Wednesdays					
Centralized scheduling staff will call to set up new patient appointment: 984-974-6519								

After having surgery, if you have a surgery related emergency, call 984-974-1000 and ask to page the on-call provider with SRZ.

### **BMI CHART**

#### WEIGHT (lbs.)

HEIGHT	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 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. Depending on how you entered the program, you may need additional testing.

#### Today will include:

- An appointment with a dietitian specializing in Bariatric Surgery
- An appointment with our Nurse Practitioner
- Updated lab work (you do not need to be fasting) if not already completed within the last 3-6 months.
  - A drug and nicotine screen- must be negative to proceed.

We will then order any required testing, including:

- An Endoscopy
- Clearances from any specialists

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:

- To attend the required nutrition class once you complete the nutrition goals
- Clearance from each provider mentioned above (this requires 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
- Your chart to submitted to the insurance company for final approval

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 in 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 master's 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 started her nursing career in 1992. 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. She started working in Bariatrics in 2006 and began working at UNC Health in 2010. She is a passionate about the care she provides to patients with obesity.



Natasha Rosser, PA completed her Physician Assistant Studies at George Washington University in 2010 and has a Master of Science in Health Sciences. After 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 guiding you through the surgical process.

#### **DIETITIANS:**



Susan Strom, RD is a Registered Dietitian licensed to practice in 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.



**Yenssi Williams, RD** is a Registered Dietitian board certified by the Commission on Dietetic Registration. Yenssi graduated from East Carolina University with a Bachelor of Science in Nutrition Science and a Bachelor of Arts in Hispanic Studies. She completed her Master of Public Health and dietetic internship at UNC-Chapel Hill. She has experience working with a range of populations- from older individuals in a skilled nursing facility to the birth-5-year age group at a Head Start organization. Yenssi enjoys learning all facets of the lives of individuals she assists while supporting their self-efficacy to encourage achievable and sustainable success

#### **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 disorders 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, and 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 several 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.

#### 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 72 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:

- Meeting with the Specialists at UNC Health Obesity Medicine
  - A referral can be placed

#### **REALISTIC WEIGHT GOALS**

Most people who undergo bariatric surgery will lose about 30% of their body weight, or 50% of their excess body weight. We will review this with you individually.

#### **BENEFITS OF SURGERY**

- The medical and emotional benefits of weight loss procedures begin almost immediately after surgery. Over time, the benefits following surgery may include:
- Significant sustained weight loss: most patients lose weight rapidly and continue to do so until 18-24 months after surgery
- Improvement of obesity related conditions
  - High Cholesterol
  - o High blood pressure
  - o Cardiovascular disease
  - Sleep apnea
  - Type II Diabetes
  - Certain types of cancer
  - Joint pains

#### **RISKS OF SURGERY**

- Infection
- Bleeding or Blood clotting
- Blockage, Obstruction, stricture, or Stenosis
- Nausea, Vomiting
- Food Intolerances
- Ulcers
- Gastric Staple Line Leak
- Pneumonia
- Nutritional Deficiencies
- Excessive weight loss or weight regain
- Death

#### 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
- 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 18 months
- You are currently addicted to alcohol or drugs
- You are under 18 years of age or are over 72 years of age
- You have an infection anywhere in your body or one that could contaminate the surgical area
- You cannot or do not want to follow the dietary rules that come with this procedure

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
- If you have Lynch Syndrome: Gastric bypass is contraindicated, but a sleeve gastrectomy may be an option
- Current smoking, vaping, or chewing tobacco. You must be nicotine (and marijuana) free for 3 months, CBD may cause a false positive test result

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.

# **SURGERIES**

# **Gastric Bypass Gastric Sleeve**

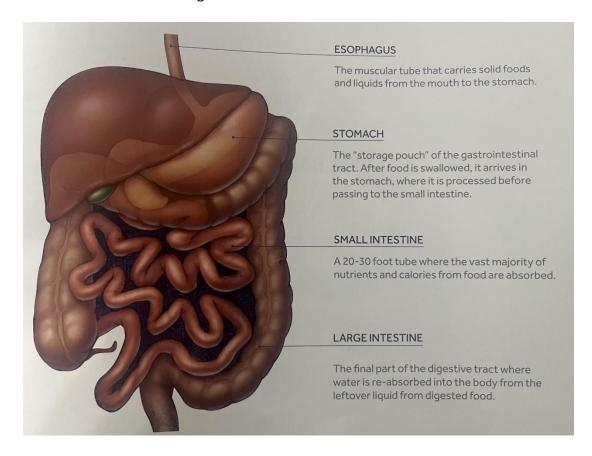
#### **BARIATRIC SURGERY APPROACH**

#### **Surgical Approach**

- Laparoscopic: approximately 5 small surgical incisions
- Robotic
- Open (rare): large incision down the abdomen

#### **Understanding the Digestive Tract**

The diagram below shows the normal gastrointestinal anatomy. As food moves along the digestive tract, from the esophagus to the large intestine, digestive juices and enzymes help to break down food into a simpler form and allow for digestion of calories and nutrients. Chewing starts the digestive process, then swallowing. The stomach's strong muscles and acid continues the digestive process. The average human stomach can hold about 3 pints (1 L) of food. When the stomach contents move through the pyloric valve and into the duodenum, bile, and pancreatic juice speed up the digestive process. Most of the calcium and iron in the foods we eat is absorbed in the first part of the small intestine known as the duodenum. The jejunum and ileum complete the absorption of almost all calories and nutrients. The food particles that cannot be digested in the small intestine are stored in the large intestine and are then eliminated.



#### **Gastric Bypass (Roux-en-Y)**

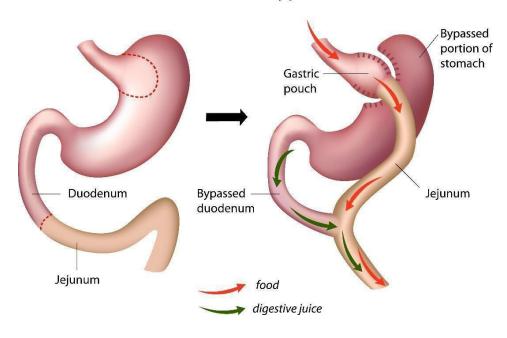
Roux-en-Y gastric bypass is a surgical procedure that routes food past most of the stomach and the first part of the small intestine. In addition to restricting food intake, gastric bypass reduces nutrient absorption.

- A small stomach pouch is created using a surgical stapler (using titanium staples). The small stomach pouch restricts food intake by only allowing a small amount of food to be eaten at one time
- 2. The small bowel is divided, using a surgical stapler, about 3-5 feet down the intestine
- 3. One end of the small intestine is raised and attached to the stomach pouch.
- 4. The other end of the intestine is reconnected to the intestinal tract
- 5. The incisions are closed with absorbable sutures and surgical glue is applied to the skin

#### **OUTCOMES- HOW MUCH WEIGHT LOSS TO EXPECT**

The amount of weight loss is variable, it can be as much as 70% 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.

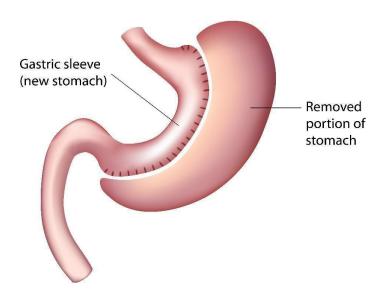
Bariatric surgery changes gut hormones, gut bacteria, signals to the brain, and rate of gastric emptying.

#### **OUTCOMES- HOW MUCH WEIGHT LOSS TO EXPECT**

The amount of weight loss is variable, it 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**



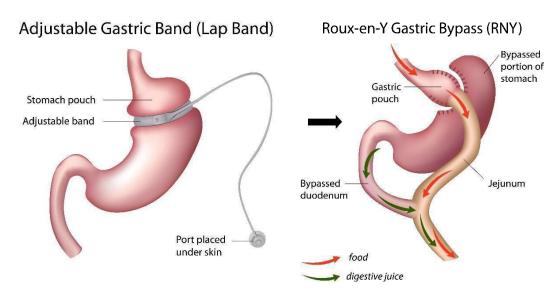
#### **SPECIFIC PROCEDURE RISKS:**

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

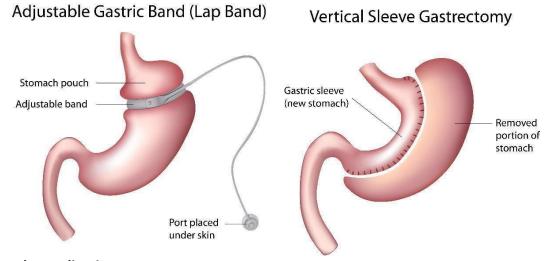
#### **Revisional Operations**

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



#### REMOVAL OF THE LAP BAND AND CREATION OF VERTICAL SLEEVE GASTRECTOMY



#### **Risks and complications**

- Increased risk of bleeding
- Removal of scar tissue

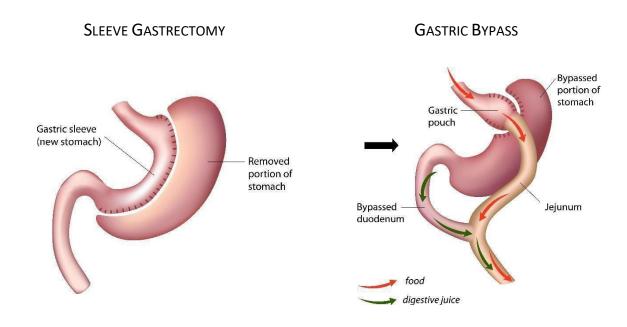
#### **Revisional Operations**

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 Coverage**

It is especially 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 the surgeon 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 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 with stabilizing your diabetes.

#### Sleep Apnea

There is a high rate of sleep apnea in patients qualifying for bariatric surgery. If a sleep study has been advised by any team member or your primary care provider, it will need to be performed.

- Mild sleep apnea requires: a discussion with the surgical team
- Moderate sleep apnea requires:
  - 1. An echocardiogram
  - 2. 3 months of PAP (CPAP or BiPAP) therapy 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**

Some 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. Many people lose weight on the liver shrink diet and reach this goal. A personalized weight loss goal will be set for you. It may be helpful to look at recipes for a 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.

#### **Nutrition Class**

A nutrition education class is required before surgery. This will be scheduled by the dietitian after she assesses your readiness. Classes are held twice a month in the classroom at UNC Hillsborough Campus.

A follow-up with the 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 the pre-op handout from the 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 consultation with the UNC Health Program Psychologist before your bariatric surgery. This will be scheduled **after** the Nutrition Education Visit. If you are already under the care of a mental health professional, we must receive documentation of diagnostic and treatment history

Psychologists can help you develop strategies to make 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 nicotine use (or chewing tobacco) at least 3 months before surgery. If the first nicotine test is positive, we will repeat the lab test monthly x 3 before you are cleared for surgery.

Nicotine patches, gums, or vapors are not acceptable alternatives as nicotine will still show up in your urine or blood stream. You can discuss medications for smoking cessation with your Primary Care Provider. We can place a referral if needed to the UNC Health Smoking Cessation program.

You must be substance free prior to surgery and a urine toxicology screen is required. This includes CBD and THC (Delta 8, 9, etc.).

#### Alcohol

If alcohol is problematic before surgery, there is an increased risk of ulcers, gastritis, and 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 (non-steroidal anti-inflammatory drugs), or blood thinners. Baby aspirin (81 mg) may be taken.

#### Weight Loss Medications:

- Phentermine, Adipex
- GLP-1 Medications
  - (Wegovy, Ozempic, Mounjaro)

Must be stopped 2 weeks before surgery

#### 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 3-6 months prior to surgery
  - We will call, MyChart message you, or discuss at our next appointment any abnormal results that need attention
  - A Sleep study (Polysomnogram)
    - 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 (Continuous Positive

Airway Pressure) is needed, it must be worn for a minimum of 3 months prior to surgery

 Clearance from any specialists you see may be required, such as a psychiatrist, or Cardiologist

#### Endoscopy

An endoscopy is a flexible tube with a camera and a light that examines the inside of your esophagus, stomach, and small intestine. It is done while asleep to be sure there are no abnormalities prior to surgery. A biopsy is taken. We test for a common bacteria called h-pylori (if positive we treat with antibiotics x 2 weeks and retest with a stool specimen in 4 – 6 weeks)

#### **Piercings, Metal and Artificial Nails**

All piercings and metal (including but not limited to nose ring, earrings, nipple piercings, etc.) must be removed the day of, before surgery. Artificial nails are permitted.

#### **Contraceptive Agents**

Oral contraceptive agents "the pill" need to be stopped 2 weeks prior to surgery and 4 weeks postoperatively. Backup birth control is required. This helps to reduce blood clots. Abstinence is advised, or condoms and foam.

#### Social Media

Support groups are held online via Zoom and 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. In-person support groups are on hold indefinitely. We have an active social media page using Facebook Forum.

Facebook: <u>UNC WLS Support Group</u> (it is a closed group)

Website: www.uncweightlosssurgery.com

#### Zoom App

#### www.zoom.com

Meeting ID: 348 693 8460

Passcode: UNCWLS

The 1<sup>st</sup> Monday at 6 pm

■ The 3<sup>rd</sup> Thursday at 1 pm

# After Surgery

#### **AFTER SURGERY: WHAT TO EXPECT**

#### **Length of Stay**

Patients who have Bariatric Surgery typically spend 1-2 nights in the hospital. A family member or friend over age 18 may stay in the room with you.

Length of stay may be longer if nausea, dehydration, pain, or other conditions arise.

#### **Time Off from Work**

Patients may take 10-21 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**

Walking is advised as soon as possible after surgery; this will help move the gases and prevent pneumonia and blood clotting.

Stay well hydrated.

- Allow pain to be your guide.
- No heavy lifting for 6 weeks.
- See Section on Physical Activity.

#### **Sleep Apnea**

You will be required to bring your own CPAP to the hospital the day of surgery.

• You will need to 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**

Pain is subjective, meaning everyone experiences pain differently; we will provide you with prescription pain medication for as-needed use, most of it 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.

You can take a Tylenol Dissolve Pack as needed for pain or Liquid Tylenol.



Avoid NSAIDS (Advil, ibuprofen, Naprosyn, Voltaren, Motrin, Aleve, meloxicam, BC powder, and Goody's).

#### Taking your medication after surgery:

We recommend that you crush your medications, and add to your protein shake in a slurry, for the first 10 days after surgery while on the liquid diet.

Once you've progressed to the puréed diet, continue to crush your medication but can now add it to Greek yogurt. As you progress to the solid food phase of the diet, you can swallow your pills whole, typically 3-4 weeks after surgery.

A pill crusher can be found at most pharmacies or stores.

# Constipation

Constipation means that you may have a difficult time passing stools (bowel movements). People pass stools from 3 times a day to once every 3 days. Constipation may occur with pain in the rectum and cramping. The pain may get worse when you try to pass stools. Sometimes there is a small amount 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 also cause constipation.

**Borborygmi (noisy bowel sounds):** This refers to characteristic growling or rumbling sounds of the stomach and intestines make as food, fluids, and gas passed through them. This can be related to bariatric surgery, lactose intolerance, and an increase in fructose and sorbitol.

Treatment is aimed at increasing fluid consumption, reducing fructose and sorbitol, avoiding dairy, and in some cases avoiding gluten.

#### Tips to prevent and treat constipation:

- Remember to begin a stool softener 2 weeks before surgery (Colace/Docusate Sodium)
- Sip 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 Benefiber. Read and follow all instructions on the label
- Get at least 30 minutes of exercise on most days of the week. Walking is an excellent 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 does not 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.

We will prescribe medication (such as Zofran, Phenergan, Compazine, or Scopolamine) to take after surgery to prevent or treat nausea.

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

#### Gas

You may experience larger amounts of gas, (farting, belching) after surgery. You may use Gas X, simethicone, or Beano. These are found over the counter.

# **Post Operatives Colds or Illnesses:**

#### Colds

If you develop an upper respiratory illness, you may use over the counter cold preparations, but avoid NSAIDS. For Example: Mucinex, Tylenol Cold & Cough, Dayquil, or Nyquil.

#### Stomach illness

- For Diarrhea: you may take Pepto Bismol, Imodium, or Kaopectate
- For Indigestion: you may take Tums, or Pepcid (famotidine)

Call if no relief.

# **RISKS OF SURGERY**

# Infection: Skin inflammation/allergic reaction to glue

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 your incisions are red, hot, swollen, open, if there is bleeding, or you have a 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 back or leg pains. If you are experiencing shortness of breath, or changes in color in your legs. Call 911 or go to the Emergency Room.

# Leakage

Staple line leak is rare but is considered a surgical emergency. Symptoms may include a rapid heart rate, fever, and severe pain. Call 911 or go to the Emergency Room. The risk rate is approximately 2%.

# 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 <u>still have</u> their gallbladder. We will give you this prescription on your 2 to 3-week follow-up with the surgeon.

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.

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

#### **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.

# **Vitamin Deficiency**

A recommended vitamin regimen must be taken after surgery to prevent deficiencies; there is a financial commitment to supplements long term as they are not covered by your insurance.

We recommend chewable or liquid supplements for the first 3 months, and then vitamins can be switched to a capsule.

You may not take gummy, tablet, grocery store brand or children's multivitamins.

Notify the bariatric team if you develop intolerance to your vitamins.

We test for vitamin deficiencies at the 3, 6, 12, 18-month post-surgery checkups and yearly.

# **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 but will not totally correct the issue.

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 Changes**

Thinning hair and losing more strands of hair is common in the first 9 months.

You must take the approved Bariatric vitamins and protein supplements as recommended. You may add collagen, biotin, keratin, or Nioxin, if you would like. There are many brands offering this.

Biotin is included in the bariatric complete multivitamins.

Hair will grow back in most cases when weight stabilizes.

# **Restless Leg Syndrome**

Also known as RLS, is a common sleep-related movement disorder characterized by an often unpleasant or uncomfortable urge to move the legs that occurs during periods of inactivity, particularly in the evenings, and is transiently relieved by movement. This can occur post-surgery in up to 11% of patients.

# **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 must limit fluids, talk with your provider before you increase your number of fluids.

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
  - o Dark yellow urine, and not much of it. Monitor the color of your urine
  - Dry and sunken eyes
  - Feeling very tired
  - o 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 of 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 sugar 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
- Passing out
- 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, even in women with known PCOS. 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.

When applicable, we mandate the use of formal birth control before and for at least 18 months after surgery. Please see a 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 may increase. Testosterone levels usually rise after surgery.

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.

Hot flashes may increase in peri-menopausal women.

# 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 must reregulate 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 on 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 terrific 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 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

# 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).

# **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 procedure, the approach used (laparoscopic vs. open), and 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 you abstain from alcohol intake for at least 6 months after surgery. Alcohol, even in lesser amounts, may cause you to get drunk more quickly, increasing your risk of 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 of 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 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 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 difficulties 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 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. 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 calling 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.
- At 18 months, post-op care will transfer to either Natasha Rosser, PA with the surgical team or the Medical Weight Loss team.

#### 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 984-215-3501
- 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 lifestyle changes 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 per day
  - o Do not skip meals and do not graze
  - o Do not go for extended periods of time (more than 4hr) without eating
- Have protein with every meal and most snacks. Aim for 60-80 grams of protein daily.
  - Snacks should consist of healthy food choices do not snack foods
  - Think fruit and cheese vs chips and crackers
- Drink at least 64 oz of water daily
- Avoid all sugary drinks (Examples: all juices, soda, sweet tea, lemonade)
- Avoid carbonated drinks. (Examples: soda, seltzer, sparkling water)
- Practice mindful eating behavior:
  - o Eat slowly, take small half-sized bites, and chew each bite 20-30 times
  - o Stop eating when your stomach is satisfied and no longer hungry do not go to the point of being full
- Practice not drinking with meals, wait 30 minutes after the meal before drinking
- Start a chewable bariatric multivitamin (approved by one of the dietitians)
- 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. Goal is 150-300 minutes of activity outside of your daily routine per week
- Keep a food journal. This will help to keep you consistent and will make tracking your protein intake easier

The Bariatric Nutrition Goals are lifestyle changes/habits patients need to practice and be successful with before having bariatric surgery. These lifestyle changes/habits are what will lead to long-term success after bariatric surgery. Remember, bariatric 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 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 Foods Contain Protein?**

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 choose lean meats (avoid ribs and wings), 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, chickpeas, back-eyed peas, navy beans, soybeans (edamame), tofu
- 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. Protein shakes count as a meal or a snack. Do not drink them with meals

For snacks, pair a protein food with a fruit or non-starchy vegetable. Some good snack options would be cheese with fruit, peanut butter on apple slices, hummus and cucumbers, low fat Greek yogurt and 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. If in doubt, ask one of the teamdietitians!

Avoid highly processed deli meats. It is meat that is ground up and molded together like bologna, salami, pepperoni, Spam, liverwurst, chicken loaf, olive loaf, Vienna sausages, treat meat, etc. It is 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 lifestyle with limited carbohydrates to help you get ready for the space limitations following bariatric surgery. Carbohydrates are limited because they take up space and may prevent you from achieving your protein goal. 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 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 foods. Aim to have protein at every meal and most snacks. Most patients need 60-80g of protein each day to heal from surgery and to maintain muscle mass long term. Your protein requirement may be more likely to determine your gender and height. Since your 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 per day. Aim to have some protein every 3-4 hours to reach your daily goal of 60-80g.

Drinking during a meal will take up space in your new stomach and will prevent you from achieving your protein goal. 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 also help prevent nausea and reflux.

Patients who have had weight loss surgery report that instead of feeling "full" after eating, they can tell they should stop eating when they feel pressure in the chest at the top of the stomach. Patients have learned that when they feel that pressure, one more bite will overfill their stomach and make them uncomfortable or nauseous. If you overfill your stomach, you will throw up.

# **How to Track Protein Intake?**

Most patients will need 60-80g of protein each day to support their muscle mass and lose weight safely. Your dietitian will let you know if you need a higher amount, based on your gender/height. During 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 to keep track or alternatively you may try an app like My Fitness Pal or Baritastic to help track protein intake.

- one ounce of cooked meat/fish/poultry contains 7g of protein,
- a large egg has 6g of protein, an extra-large egg has 7g,
- 2 Tbsp peanut butter or 1/4 cup of nuts has 7g of protein,
- 1/2 cup of pinto beans has 7g of protein,
- 1 ounce of cheese has 7-8g of protein (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 the size of a deck of playing cards; the size and thickness of a deck of cards 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
  your food well is that you will not need to drink during meals. Patients also state they
  eat less because they get tired of chewing
- Stop eating when you are satisfied. You are looking to feel satisfied and not hungry vs going to the point of feeling full. It takes your stomach about 15-20 minutes to tell your brain that it has food in it. If you eat slowly and stop when your stomach is no longer hungry, in 20 minutes you will feel satisfied

# **Hydration: Drink plenty of fluids**

Drinking plenty of fluids will help you stay hydrated. 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 mostly water, 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!

Avoid all caffeine for 2 weeks after surgery. You can begin drinking caffeinated coffee again 3 weeks after surgery. Caution with cow milk. Many people become lactose intolerant, suitable alternatives include fatfree lactose-free ultra-filtered milk (e.g. Fairlife), sugar-free almond milk, or sugar-free oat milk.

Sugar-free ice pops/popsicles and Jell-o are allowed at any time after surgery. Aim for less than 2g of sugar per serving in the fruit ice pops.

# **Adopt a Regular Exercise Routine**

There is an enormous difference between physical activity and exercise. Physical activity are 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 an activity outside your daily routine. This would include going for a walk, working out at the gym, or participating in exercise videos. 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 cannot talk at all, it is 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 help create a calorie deficit that will lead to weight loss. Strength training with weights or resistance bands will help strengthen and build muscle, which will also help create a calorie deficit. The goal is 150-300 minutes of moderate level activity that is outside of your daily routine per week.

Exercise is necessary to maximize your weight loss and overall general health. Patients who lose the most weight after bariatric surgery are exercising regularly (most days of the week) and following an overall healthy 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 fits within your goals.

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.

2 servings per container Serving size 1 o	cup (140g
Amount per serving Calories	160
%	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	119
Total Sugars 15g	
Includes 5g Added Suga	rs 10°
Protein 3g	
Vitamin D 5mcg	25
Calcium 20mg	2
Iron 1mg	6
Potassium 230mg	4

# **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 each day. Here are some tips for picking a good option:

- Choose a protein shake that provides 20-30g of protein and under 200 calories
- Whey protein is ideal. However, plant-based options may also be used for those that tolerate them better or just prefer the taste. If you are lactose intolerant, look for a protein powder with whey protein isolate as the only protein source or choose a plant-based option
- Flavored, unflavored, and even clear liquid protein shake options are available
- Ready-made protein shakes will be more expensive than making them yourself
  To make your own protein shakes, combine your choices of protein powder (whey or plant based)
  with either water, low-fat/fat free dairy milk or unsweetened almond milk. Do not add additional
  fruits like bananas and berries. Keep it basic.

#### 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** 11g protein, 44 calories/1 scoop (unflavored)
- Ensure Max/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 30g protein, 190 calories
- Body Fortress Super Advanced Whey Powder 30g protein, 180 calories
- Orgain Organic (plant-based powder) 21g protein, 150 calories/2 scoops
- Optimum Nutrition Gold Standard Whey 24g protein, 120 calories/1 scoop
- Owyn (plant based powder) 20g protein, 140 calories/2 scoops
- GNC 100% Whey Protein Powder 24g protein, 150 calories/1 scoop
- GNC Total Lean shake 25g protein, 180 calories, 8g fiber
- Pure Protein Natural Whey Powder 25g protein, 160 calories/1 scoop
- Isopure Low Carb Protein Powder 25g protein, 110 calories/1 scoop
- **Isopure Infusions** 20g protein, 90 calories/1 scoop
- Seeq Clear Protein Powder 22g protein, 100 calories/1 scoop
- Food Lion Whey Protein 30g protein, 170 calories/2 scoops
- Unjury Protein Powder 21g protein, 900 calories/1 scoop www.unjury.com
- Walmart Equate High Performance Protein shake 30g protein, 160 calories
- Walmart Equate Whey Protein Powder 30g protein, 180 calories/1 scoop
- Quest Protein shake 30g protein, 160 calories











# **Bariatric Multivitamins and Supplements**

Bariatric surgery increases your risk for vitamin deficiencies due to a significant decrease in food intake, limited consumption of fruits and vegetables, and potential malabsorption pending surgical procedure. You will need to take a bariatric multivitamin for the rest of your life. It is extremely important that you take a correctly formulated bariatric multivitamin to avoid developing nutrient deficiencies. There are many different bariatric multivitamins out there on the market. We follow the American Society for Metabolic and Bariatric Surgery (ASMBS) guidelines to ensure you receive adequate vitamin and mineral supplementation after undergoing bariatric surgery. Not all vitamins labeled "bariatric" follow the ASMBS criteria. Please choose a vitamin from the options we have provided or contact one of the team dietitians for help with choosing a correctly formulated vitamin.

While you are healing, vitamins should be chewable or liquid. We recommend liquid or chewable vitamins for 6 months after gastric bypass and 3 months after gastric sleeve. After that you can switch over to a capsule.

Below is a list of multivitamins that meet the ASMBS guidelines. It is worth looking at getting samples from a variety of companies. Vitamins may be purchased from the company website or Amazon.

Name of Multivitamin	Daily Amount	Additional Supplements to Take	Where to Purchase
Bariatric Advantage Advanced Multi EA	2	Calcium	bariatricadvantage.com
Bariatric Advantage Ultra Solo	1	Calcium	bariatricadvantage.com
Bariatric Choice All-in-One	4		dietdirect.com
Bariatric Fusion Complete	4		bariatricfusion.com
BariLife	1	Calcium	barilife.com
bn chews bariatric multivitamin	1	Calcium	bnhealthy.com
Bariatric Pal Multivitamin	1	Calcium	store.bariatricpal.com
Celebrate multi-complete with iron	2	Calcium	celebratevitamins.com
Celebrate Drink Mix – 2 scoops		Iron	celebratevitamins.com
Opurity Bariatric Multi	1	Calcium	unjury.com
ProCare Bariatric Chewable	1	Calcium	procarenow.com

If you are interested in taking a multivitamin not on the list, ask one of the team dietitians 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 multivitamins 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:

- To narrow down your search, start with the second column in the chart named "Daily Amount." Ask yourself how many vitamins a day you are willing and able to take
- 2. Again, it is worth ordering samples from the different bariatric vitamin companies to find one that tastes good to you before ordering an entire month's supply
- When you decide on a multivitamin, please order a chewable multi with iron- 18mg (men) or 45mg (women)
- 4. Begin taking the bariatric multivitamin 2 weeks prior to surgery when you start the pre op diet

# **Calcium Supplements**

If you choose a 1-a-day or a 2-a-day 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 a 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

Туре	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:

Туре	Amount
Multivitamin	200% DRI for most nutrients
NO GUMMIES	Should also contain:
	Thiamin – at least 12 mg
	• Folate – 400-800 mcg
	<ul><li>Zinc – 8-22 mg</li></ul>
	• Copper – 2 mg
	<ul> <li>Magnesium</li> </ul>
	• 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
- <a href="http://www.obesityaction.org">http://www.obesityaction.org</a> Your Weight Matters Magazine and other resources on obesity
- www.bariatricfoodie.com
- Obesityhelp.com

**Contact the UNC Bariatric 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 AFTER SURGERY WHILE YOUR STOMACH IS HEALING.

#### **Pre-Surgery Diet ("Liver Shrink Diet")**

You will follow a 14-day pre-surgical diet. The surgeons require patients follow this liver shrink diet so that they can 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 follows the rules. If you are making your own shakes, keep it basic – protein powder and a liquid only.

#### Recommended guidelines for protein shake:

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

#### 2. Drink 2-3 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 starchy ones like potatoes, corn, and sweet green peas.
- The timing of the meal is not important. It is your choice whether it is breakfast, lunch, or dinner.

#### **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.

- 5. Stay well hydrated. Aim for 64oz of fluid daily.
  - Choose water or sugar free, non-carbonated 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/noncarbonated beverages. You will start by 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 – for 10 days after

discharge from the hospital

 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 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, regular Gatorade/POWERADE). 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 for 10 days once you are home.

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

#### Stage 3: Pureed Foods: (1-2 weeks)

# 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 5-6 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

<u>High-Protein Pureed Food Options:</u> 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

**Foods to Avoid:** 

Applesauce and baby food fruit

High carbohydrate foods like mashed potatoes, grits, and oatmeal

These foods are 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	¼ cup cottage	¼ cup pureed	¼ cup pureed	¼ cup Greek	¼ cup pureed
eggs	cheese	chicken salad	beans with	yogurt	tuna salad
			melted cheese		

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

#### Stage 4: Soft and Moist Foods: (1-2 weeks)

- You can now start to eat 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 do not overfill your stomach. 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:**

- Starchy foods such as bread, cereal, crackers, potatoes, pasta, rice, chips, grits, snack foods. Some of these foods are poorly tolerated and some are easy to overeat
- 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. Be mindful of your food choices

### 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	1 oz. cheese
				broccoli	

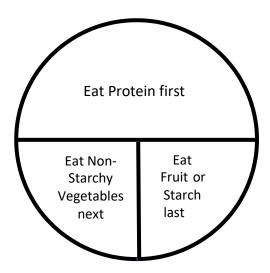
#### **Stage 5: Regular-textured Foods**

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 satisfied vs full
- Read food labels
- Keeping a food journal will 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, non-carbonated, 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 10-12g of protein at each meal/snack. 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	½ cup cottage	½ cup chicken	½ cup Greek	2-3 oz. fish	1 oz. cheese
cheese	cheese with 1/4	salad with	yogurt with ¼	with a small	
	cup fruit	cucumber	cup almond	tossed	
		slices		salad	

#### Weight loss plateaus

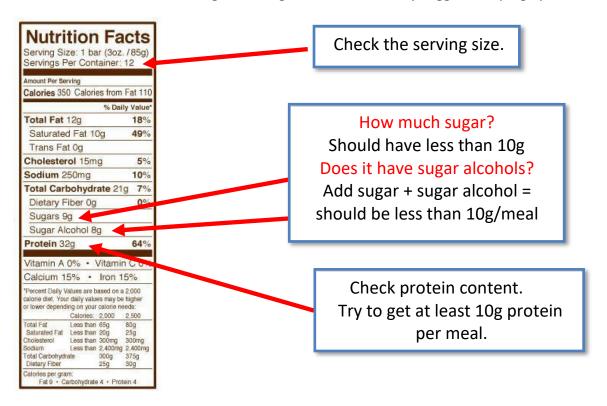
If weight loss begins to stall after a few or more months after surgery, check to make sure you are not eating excessive amounts of protein. You likely have already lost a significant amount of weight and your body is not working as hard to move around with activities of daily life. To restart your weight 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
- Some starchy foods can swell up in the stomach and cause pain and discomfort
- Crunchy snack foods like crackers, popcorn, and chips are typically easy to eat and potentially overeat. Overeating will slow your weight loss progress or lead to weight regain
- 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.



# **Next Steps Leading to Bariatric Surgery**

The next steps after completing the Bariatric Nutrition Class are:

- An appointment with the program psychologist for evaluation. This will be scheduled by the team.
- A follow up with the dietitian (RD) to assess readiness for surgery. This will also be scheduled by
  the team. The RDs (Registered Dietitians) are looking at whether patients have accomplished the
  goals set at initial visit and have been able to maintain compliance with those goals. Once
  determined you have been successful with the goal and understand the nutrition class material,
  the dietitian can grant RD clearance for surgery
- A follow up with Tara Zychowicz, NP, to assess completion of medical requirements, labs, and tests. The patient will need to schedule this appointment once they know the timeline for the previous steps (medical testing, nutrition class, psych eval, RD follow-up after class)
- 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

# **Keys for Weight Loss Success:**

#### 1. A lifelong commitment

Bariatric surgery gives patients the physical tools to assist with weight loss, but patients must be committed to making the mental and emotional changes necessary after weight loss surgery to increase potential successful weight loss. This commitment will also help with long-term weight maintenance.

Patients to undergo weight loss surgery must be committed to taking vitamins and supplements, healthy eating, office follow-ups, exercise, and support group attendance for life. Your emotional and physical well-being depends on this commitment. Learn from your surgery team what is expected of you and make the lifelong commitment to maintain your well-being.

Lack of exercise, poorly balanced meals, constant grieving, eating processed carbohydrates, and drinking carbonated beverages are common causes of regaining weight after surgery. You will need to manage your food intake and exercise for the rest of your life.

#### 2. Personal responsibility

Patients who commit to eating healthy foods, taking the required supplements, having routine blood work drawn, and incorporating an exercise program into their lifestyles have increased potential for the best long-term results.

#### 3. Balanced nutrition

Adhering to healthy nutrition after weight loss is essential for long-term success and weight maintenance. Incorporating all the food groups according to the American Dietetic Association guidelines is a place to begin for good health.

#### 4. Support groups

Support groups are an integral part of the healing process, physically and emotionally. All patients are encouraged to incorporate a support group into their monthly schedule.

#### 5. Exercise

In a reduced caloric state, the body's natural tendency is to use muscle for immediate energy needs. Therefore, it is essential to incorporate a fitness program after surgery. Exercising at least 5 days/week concerns lean muscle mass, burns fat, and increases your potential for long-term success.

#### 6. Vitamins, minerals, and protein supplements

Because weight loss surgery changes the digestive process, lifelong nutritional supplements are essential.

Vitamin deficiencies are often predictable and preventable. Take your vitamins and supplements and commit to seeing your surgical team on a regular basis for lab work and follow-up.

Bariatric Surgery Commitment:		
(A copy of this document will be retained in	the patient's medical	l record.)
I, my chance of weight loss success:	, do	lo hereby commit to taking the following steps to increase
2. I will adhere to the nutrition 3. I will be diligent in recording 4. I will attend my follow-up 5. I will remember that successful that while there may be hard my physician, my family, and	on guidelines and ng and tracking mand tracking mand tracking mand the appointments and essful weight loss in the appointment and the appointment	thy lifestyle, which includes regular exercise and activity. portion sizes outlined by my surgery team. By eating habits, exercise, and weight loss. If the open and honest with my surgical team. It is an ongoing effort and commitment and that I recognize the open and will overcome them with the support of the open and will overcome them with the support of the open and will overcome them with the support of the open and will overcome them with the support of the open and will overcome them with the support of the open and will overcome them with the support of the open and the open a
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