



Mass General Brigham
Wentworth-Douglass Hospital

Start living your best life!



Patient Handbook

Center for Weight Management
and Bariatric Surgery

Introduction

Our multi-disciplinary team at the Wentworth-Douglass Center for Weight Management and Bariatric Surgery has created this handbook to help you live your best life!

We are here to help make your weight loss journey a success, starting with education and optimization, a successful operation, and finally - your transformation!

Our surgeons perform the most advanced robotic weight loss surgeries utilizing the latest DaVinci robotic system.



Pre-Operative Requirements Checklist

Start Weight: _____

Start BMI: _____

The checklist below is to help you track your progress through the program by including dates for each required pre-op appointment/goal.

	Date(s) Completed:
Attended Information Session	
Submit Questionnaire/Weigh In	
Meet with Nurse Practitioner (likely multiple visits)	
Meet with Dietitian (likely multiple visits)	
Psychological Evaluation	
Nutrition & Behavior Management Classes (3 required)	Class 1: _____ Class 2: _____ Class 3: _____
Achieve Pre-op Weight Goal (if required)	
Complete Required Medical Testing	
Meeting with Surgeon	
Attend Pre-Op Education Class	

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Meet Your Bariatric Team



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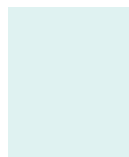
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Your bariatric team is located at:
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Your bariatric team can be contacted at:
Phone: 603-610-8095 | Fax: 603-610-8096

MGB Patient Gateway App (available for free on Apple App Store or Google Play) or at patientgateway.massgeneralbrigham.org.

Background on Obesity

Definition

Obesity in adults is defined as a BMI (body mass index) of 30 or higher. There are 3 classes of obesity:

- Class 1: BMI of 30 to less than 35
- Class 2: BMI of 35 to less than 40
- Class 3: BMI of 40 or higher

Causes of Obesity

Obesity is a complex health issue that results from a variety of factors such as behavior, environment, and genetics.

Behavior

Adopting healthy behavioral habits such as a balanced, nutritious eating pattern and regular physical activity helps to ensure lifelong weight control and prevention of chronic diseases such as Type 2 diabetes and heart disease. A nutritious eating pattern should include a variety of fruits, vegetables, lean protein, low-fat dairy products, and whole grains.

Our eating behaviors can affect our health, by either choosing to eat with intention (mindful eating), or eating without intention out of boredom, habit, or emotions (mindless eating). Mindful eating is an important factor to lifelong weight control and includes planning meals ahead, selecting healthy portions, and paying attention to hunger and fullness cues. Mindless eating patterns such as “binging” (eat a large amount of food quickly), or “grazing” (eat smaller amounts of food continuously throughout the day) can contribute to obesity. Simple behavior changes to our daily routines can help increase our physical activity level, such as taking the stairs instead of the elevator. In addition to our daily tasks, it is also important to exercise regularly. Examples include going to the gym, taking a walk, or swimming. Other healthy behaviors include logging and tracking exercise

patterns daily in a diary, regularly monitoring your weight, setting realistic health goals, and developing a strong social support network.

Environment

Our environment, our routines, and the people in our environment influence our health habits and behaviors. For example, maybe your coworkers bring sweets into the office every day that you can't help but eat, but had they not brought the sweets in, you would not have thought about eating it. Our daily routines can also impact our behaviors. For example, if you work long hours in a sedentary job, making time for exercise may be difficult. Therefore, it is important to create a healthy environment to avoid high risk situations to help prevent and treat obesity and maintain weight loss.

Biology

Genetics: Some people have a genetic tendency to gain weight and store fat. Not everyone with this tendency will become obese, while some people without a genetic predisposition will become obese. Treatments for genetic causes of obesity do not currently exist. However, since genetic changes in the human body occur so slowly, it cannot be responsible for the rapid onset of the obesity epidemic. Genetics cannot be changed, but environment and behavior can.

Weight Control Center & Set Point: Your weight is predetermined by your body's weight control center. When you begin exercising and eating less in attempts to lose weight, your body fights you by reducing your metabolic rate, stimulating release of ghrelin (hunger hormone) making you hungrier, and inhibiting weight loss. Alternatively, as your body weight increases, your body will adapt to it, identifying this as a new normal “set point”. Bariatric surgery resets this weight set point, making your body “think” it is in an overfed state, and in turn, decreases hunger and increases your metabolism. This happens immediately after surgery and



remains in effect for 12 to 18 months after surgery. The best predictor of long-term success is the amount of early post-operative weight loss.

Health Risks

Many health problems are associated with obesity, which is referred to as a “comorbidity”. A severely obese person is 10 times more likely to die from a common disease, than someone who is not. The most common health problems related to obesity are:

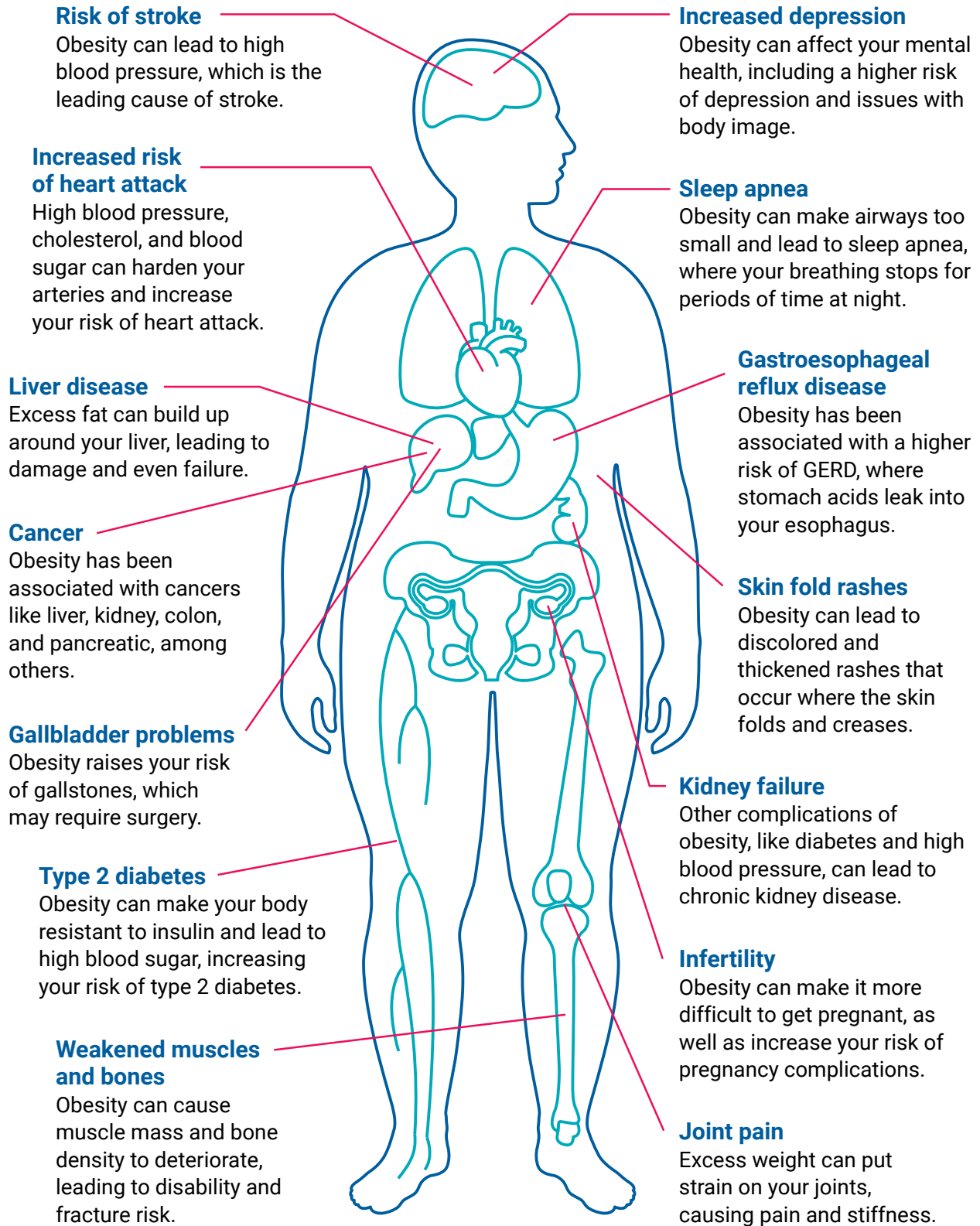
- High blood pressure
- High cholesterol
- Type 2 diabetes
- Coronary heart disease
- Stroke
- Gallbladder disease
- Osteoarthritis
- Sleep apnea
- Cancers such as breast, endometrial, colon, kidney, liver, and gallbladder

- Mental health issues such as clinical depression, anxiety, and others
- Skeletal issues such as degenerative joint disease, back pain, osteoarthritis

Significant weight loss that is maintained can reverse or markedly improve these conditions. Unfortunately, conservative measures such as diet and behavior modification alone do not usually have long-term success. Only about 5 to 10% of people who have a substantial weight loss are able to maintain it long-term. Bariatric surgery, when accompanied by dietary changes, behavior modification, and exercise has been shown to achieve a greater success rate for maintaining weight loss and improving or reversing obesity-related health problems.

Most obese patients undergoing gastric bypass with Type 2 diabetes have normal blood sugars after surgery. Those patients who have Type 1 diabetes do not achieve normal blood sugars. However, in spite of its benefits, bariatric surgery is not a cosmetic surgery or a “quick fix”. It requires lifelong dedication to be successful.

Obesity-related Comorbidities



Body Mass Index (BMI) Chart

Height		Weight																					
		lbs	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290
		kgs	41	45	50	54	59	64	68	73	77	82	86	91	95	100	104	109	113	118	122	127	132
ft/in	cm																						
4'8"	142.2	20	22	25	27	29	31	34	36	38	40	43	45	47	49	52	54	56	58	61	63	65	
4'9"	144.7	19	22	24	26	28	30	32	35	37	39	41	43	45	48	50	52	54	56	58	61	63	
4'10"	147.3	19	21	23	25	27	29	31	33	36	38	40	42	44	46	48	50	52	54	56	59	61	
4'11"	149.8	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	51	53	55	57	59	
5'0"	152.4	18	20	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55	57	
5'1"	154.9	17	19	21	23	25	26	28	30	32	34	36	38	40	42	43	45	47	49	51	53	55	
5'2"	157.4	16	18	20	22	24	26	27	29	31	33	35	37	38	40	42	44	46	48	49	51	53	
5'3"	160.0	16	18	19	21	23	25	27	28	30	32	34	35	37	39	41	43	44	46	48	50	51	
5'4"	162.5	15	17	19	21	22	24	26	27	29	31	33	34	36	38	39	41	43	45	46	48	50	
5'5"	165.1	15	17	18	20	22	23	25	27	28	30	32	33	35	37	38	40	42	43	45	47	48	
5'6"	167.6	15	16	18	19	21	23	24	26	27	29	31	32	34	36	37	39	40	42	44	45	47	
5'7"	170.1	14	16	17	19	20	22	24	25	27	28	30	31	33	34	36	38	39	41	42	44	45	
5'8"	172.7	14	15	17	18	20	21	23	24	26	27	29	30	32	33	35	37	38	40	41	43	44	
5'9"	175.2	13	15	16	18	19	21	22	24	25	27	28	30	31	33	34	35	37	38	40	41	43	
5'10"	177.8	13	14	16	17	19	20	22	23	24	26	27	29	30	32	33	34	36	37	39	40	42	
5'11"	180.3	13	14	15	17	18	20	21	22	24	25	27	28	29	31	32	33	35	36	38	39	40	
6'0"	182.8	12	14	15	16	18	19	20	22	23	24	26	27	28	30	31	33	34	35	37	38	39	
6'1"	185.4	12	13	15	16	17	18	20	21	22	24	25	26	28	29	30	32	33	34	36	37	38	
6'2"	187.9	12	13	14	15	17	18	19	21	22	23	24	26	27	28	30	31	32	33	35	36	37	
6'3"	190.5	11	13	14	15	16	18	19	20	21	23	24	25	26	28	29	30	31	33	34	35	36	
6'4"	193.0	11	12	13	15	16	17	18	19	21	22	23	24	26	27	28	29	30	32	33	34	35	
6'5"	195.5	11	12	13	14	15	17	18	19	20	21	23	24	25	26	27	28	30	31	32	33	34	
6'6"	198.1	10	12	13	14	15	16	17	18	20	21	22	23	24	25	27	28	29	30	31	32	34	
6'7"	200.6	10	11	12	14	15	16	17	18	19	20	21	23	24	25	26	27	28	29	30	32	33	
6'8"	203.2	10	11	12	13	14	15	16	18	19	20	21	22	23	24	25	26	27	29	30	31	32	
6'9"	205.7	10	11	12	13	14	15	16	17	18	19	20	21	23	24	25	26	27	28	29	30	31	
6'10"	208.2	9	10	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
6'11"	210.8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	25	26	27	28	29	30	

Underweight	Healthy	Overweight	Class I Obesity	Class II Obesity	Class III Obesity
<18.5	18.8 – 24.9	25.0 – 29.9	30.0–34.9	35.0–39.9	≥40.0

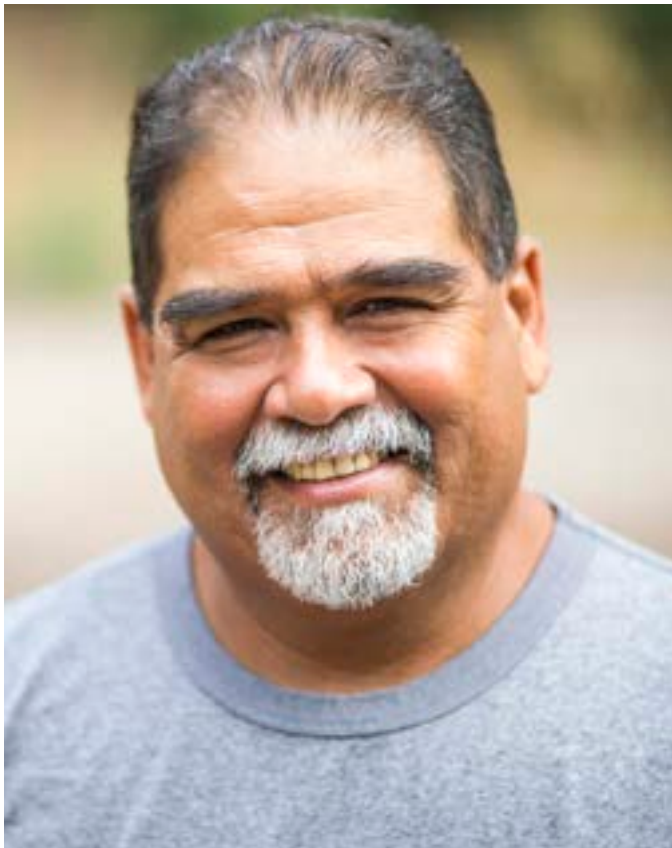
About the Program

Criteria for Bariatric Surgery Eligibility

Qualifications for bariatric surgery include:

- BMI \geq 35, or more than 100 pounds overweight or BMI \geq 30 with at least one or more obesity related co-morbidities such as type II diabetes (T2DM), hypertension, sleep apnea and other respiratory disorders, non-alcoholic fatty liver disease, osteoarthritis, lipid abnormalities, gastrointestinal disorders, or heart disease.
- Inability to achieve a healthy weight loss sustained for a period of time with prior weight loss efforts.

It is preferred that surgery be performed at a facility that meets high standards of quality as part of a Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program (MBSAQIP) accredited center, which we received in 2019.



Surgical Options

There are several factors to consider when deciding which procedure is best for you. It is important to inform yourself on our surgical options by reading the content in this manual and speaking with the bariatric team to help make the best decision.

At Wentworth-Douglass Hospital, we perform the following minimally invasive, totally robotic-assisted laparoscopic surgeries:

- Roux-en-Y gastric bypass
- Sleeve gastrectomy
- Single Anastomosis Duodeno-Ileal Bypass with Sleeve Gastrectomy (SADI-S)
- Bilio-pancreatic diversion with duodenal switch (BPD-DS)
- Revisions of previous weight loss surgeries
- Removal of failed gastric bands

The final decision on which surgery is best will be made at your preoperative surgeon consult.

The Bariatric Team

The National Institutes of Health (NIH), as well as the American College of Surgeons (ACS) and the American Society for Metabolic and Bariatric Surgery (ASMBS) recommend that surgery be performed by a board-certified surgeon with specialized experience/training in bariatric and metabolic surgery, and at a center that has a multidisciplinary team of experts for follow-up care. Listed below are the members of our multidisciplinary team:

- Board-Certified Surgeons
- Obesity Medicine Physicians
- Program Administrator
- Program Coordinator
- Nurse Practitioners



- Surgical Physician Assistants
- Registered Bariatric Dietitians
 - » Board Certified Specialist in Weight Management and Obesity Medicine
- Nurse Navigator
- Metabolic and Bariatric Surgery Clinical Reviewer (MBSCR)
- Triage Nurse
- Behavioral Health Providers
- Provider Services Coordinator
- Medical Assistants
- Patient Service Representatives

Timeline

There are a series of steps needed to prepare for safety and success after bariatric surgery. On average, it takes about three months to complete these steps. During this time, you will work with the bariatric team to become medically optimized and make lifestyle changes needed for lifelong success. During this time, weight loss is encouraged.

- Attend information session
- Complete initial weigh-in visit and submit questionnaire
- Verify your insurance coverage
- Meet with one of our nurse practitioners for medical evaluation
- Meet with one of our dietitians for nutritional evaluation
- Complete behavioral health evaluation
- Attend a series of 3 Nutrition & Behavior Management classes
- Complete preoperative lab work and diagnostic testing ordered by our nurse practitioner
- Work with PCP to ensure all age-related routine medical screenings are completed
- Meet with surgeon once medically and nutritionally cleared
- Attend preoperative class 1-2 weeks before surgery
- Surgery - and onto the journey of living your best life!

Missed Visit Policy

Our team is committed to your success and ask that you arrive to appointments on time and provide 24 hours' notice if you need to reschedule or cancel an appointment. If you miss a scheduled appointment, you will receive a call to reschedule, and are encouraged to contact us to reschedule. You may be discharged from our practice if you miss 3 appointments within a 12-month period.

Surgery Options

Roux-en-Y Gastric Bypass

Procedure Description

The Roux-en-Y Gastric Bypass operation is a surgical procedure that combines the creation of a small stomach or pouch with the construction of a bypass to a segment of the small intestine. The bypass causes reduced absorption of calories and nutrients. This procedure helps with weight loss through:

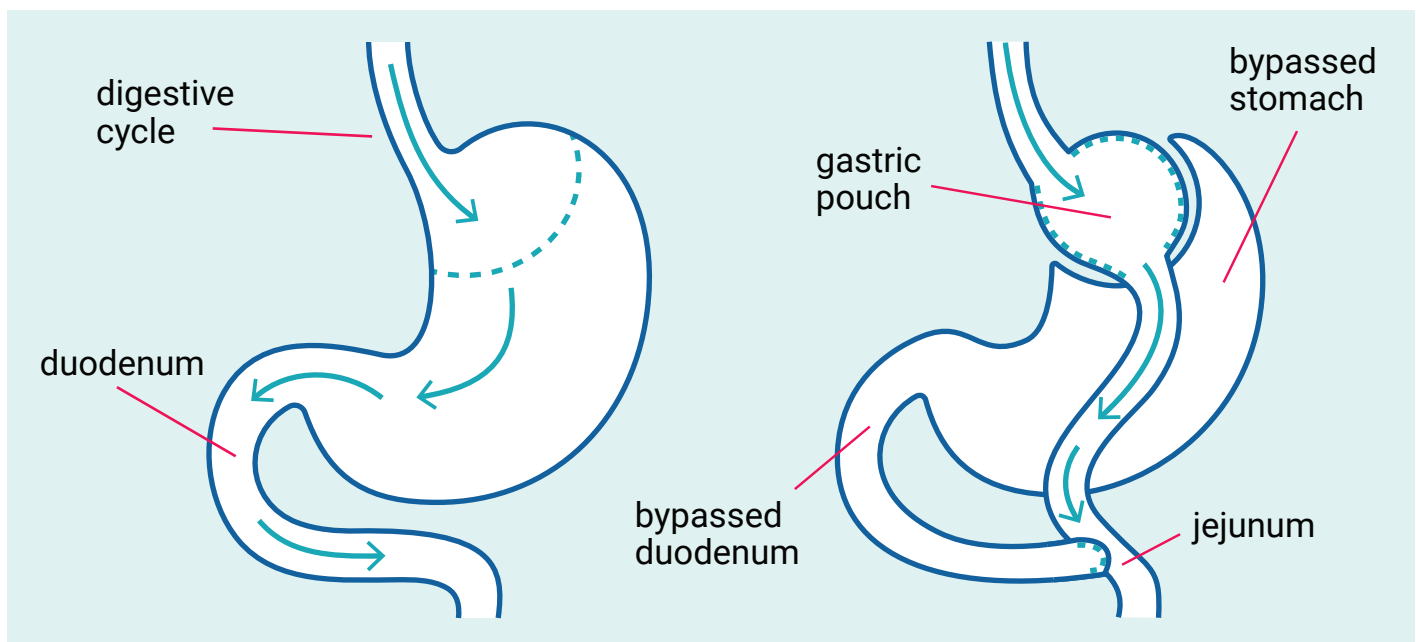
- Reduced volume of food intake
- Reduced hunger
- Decreased absorption of calories
- Changing neurohormonal axis (the way your gut communicates with your brain)
- Changing microbiome (increases the amount of healthy gut bacteria)
- Decreases insulin resistance

This surgery is performed totally robotically, by our board-certified bariatric surgeons, using the

latest Intuitive DaVinci Xi robotic system, via four small incisions. In very rare circumstances, it may need to be performed laparoscopically or as an open procedure. The hospital stay is usually 1 night. Roux-en-Y Gastric Bypass is still considered to be the “gold standard” of weight loss surgery by the American Society for Metabolic and Bariatric Surgery.

Advantages

- Higher total average weight loss (up to 80%)
- Higher rate of comorbidity resolution (particularly Type 2 Diabetes, GERD)
- No foreign body placement
- More data and follow-up since performed longer
- Short duration of metabolic adaptation



Disadvantages

- More advanced and technically demanding surgery
- Slightly higher rate of complications (leaks, internal hernias, marginal ulcers, gallstone disease)
- Higher risk for vitamin/mineral deficiencies
- Higher prevalence of dumping syndrome (intolerance to sugary foods)
- Higher risk of developing alcohol use disorder

Possible Short-Term Complications

- Anastomotic leak: leakage at suture lines in the stomach and small bowel
- Deep vein thrombosis (blood clots) with potential of travelling to lungs, causing a life-

threatening pulmonary embolism, or a blood clot in the lungs

- Small bowel obstruction
- Bleeding
- Wound infection
- Dehydration

Possible Long-Term Complications

- Stenosis or stricture at the entrance to the new stomach pouch
- Stomach ulcers
- Vitamin and mineral deficiencies
- Hernias
- Temporary hair loss (thinning of the hair, not total baldness)
- Gallstones

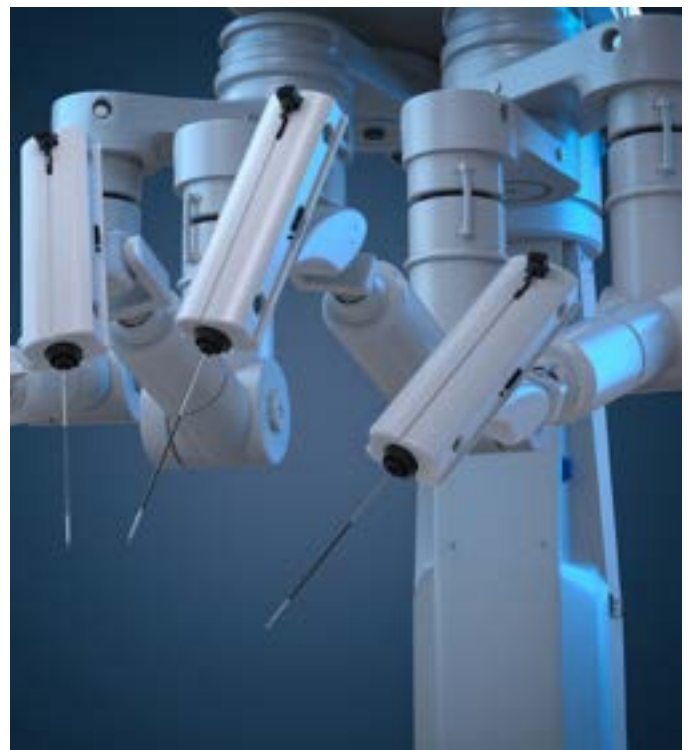
Sleeve Gastrectomy

Procedure Description

The sleeve gastrectomy is a surgical procedure that removes a portion of the stomach to reduce the volume of the stomach by about 85%. The portion of the stomach that is removed produces a hormone called ghrelin, which stimulates hunger. This procedure helps with weight loss through:

- Reduced volume of food intake
- Reduced hunger
- Changing neurohormonal axis (the way your gut communicates with your brain)
- Changing microbiome (increases the amount of healthy gut bacteria)
- Decreases insulin resistance

This surgery is performed totally robotically by our board-certified bariatric surgeons, using the latest Intuitive DaVinci Xi robotic system, via four small



incisions. In very rare circumstances, it may need to be performed laparoscopically or as an open procedure. The hospital stay is usually one night. Sleeve gastrectomy surgery is permanent and cannot be reversed.

Advantages

- Less complex procedure
- No intestinal rerouting
- No foreign body placement
- Low risk of ulcers
- Low risk of internal hernias, obstruction
- Relatively comparable weight loss to gastric bypass
- Lower risk of malabsorption and vitamin deficiencies
- Short duration of metabolic adaptation

Disadvantages

- Not adjustable
- Not reversible
- Possible stricture

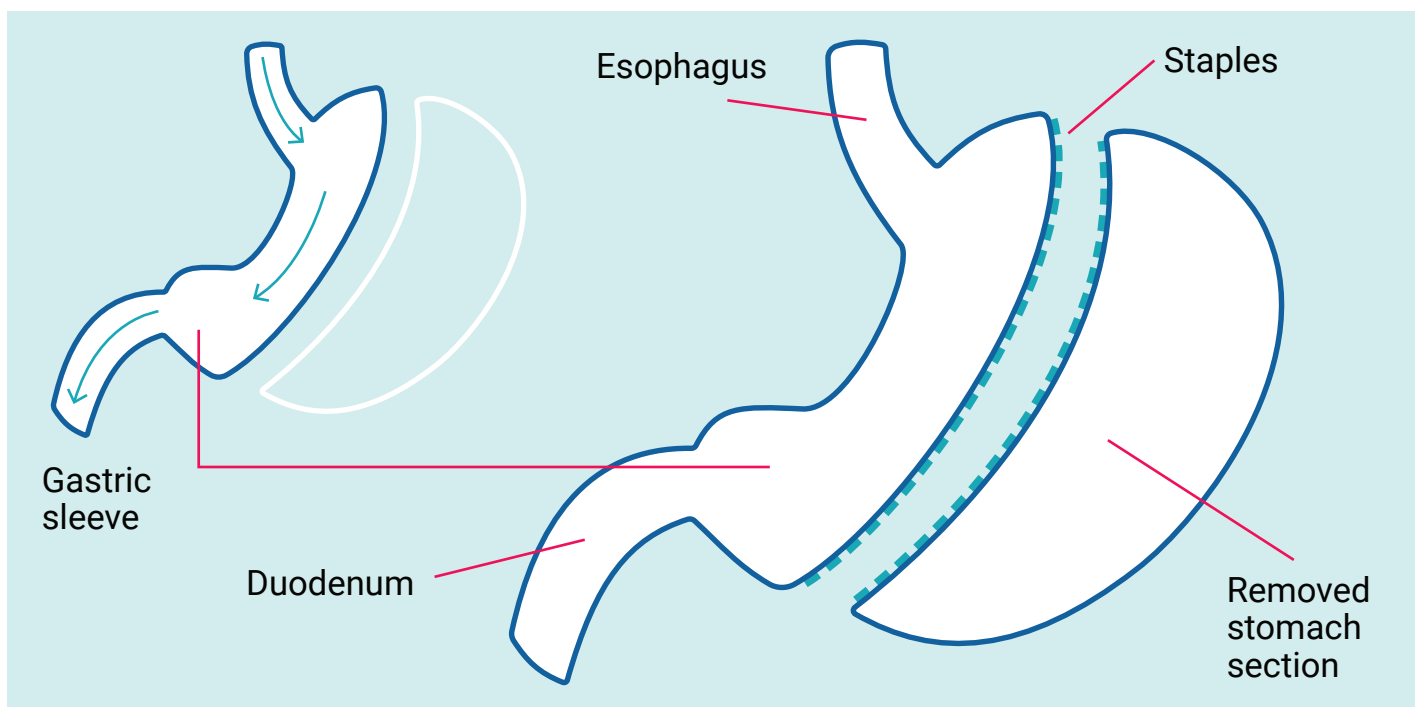
- Possible staple line leaks
- Higher potential of weight regain in comparison to RYGB
- Worsening of GERD
- Contraindicated in patients with Barrett's Esophagus

Possible Short-Term Complications

- Leaks along the staple line in the new stomach
- Bleeding
- Stenosis or swelling of the new small stomach
- Deep vein thrombosis (blood clots) in the legs with potential for travelling to lungs, causing a life-threatening pulmonary embolism, or a blood clot in the lungs

Possible Long-Term Complications

- Vitamin and mineral deficiencies
- Hernias
- Temporary hair loss (thinning of the hair, not total baldness)
- Gallstones



Single Anastomosis Duodeno-Ileal Bypass with Sleeve Gastrectomy (SADI-S)

Procedure Description

The Single Anastomosis Duodenal-Ileal Bypass with Sleeve Gastrectomy, referred to as the SADI-S is the most recent procedure to be endorsed by the American Society for Metabolic and Bariatric Surgery. While similar to the BPD-DS, the SADI-S is simpler and takes less time to perform as there is only one surgical bowel connection.

The operation starts the same way as the sleeve gastrectomy, making a smaller tube-shaped stomach. The first part of the small intestine is divided just after the stomach. A loop of intestine is measured several feet from its end and is then connected to the stomach. This is the only intestinal connection performed in this procedure.

When the patient eats, food goes through the pouch and directly into the latter portion of the small intestine. The food then mixes with digestive juices from the first part of the small intestine. This allows enough absorption of vitamins and minerals to maintain healthy levels of nutrition. This surgery offers good weight loss along with less hunger, more fullness, blood sugar control and diabetes improvement.

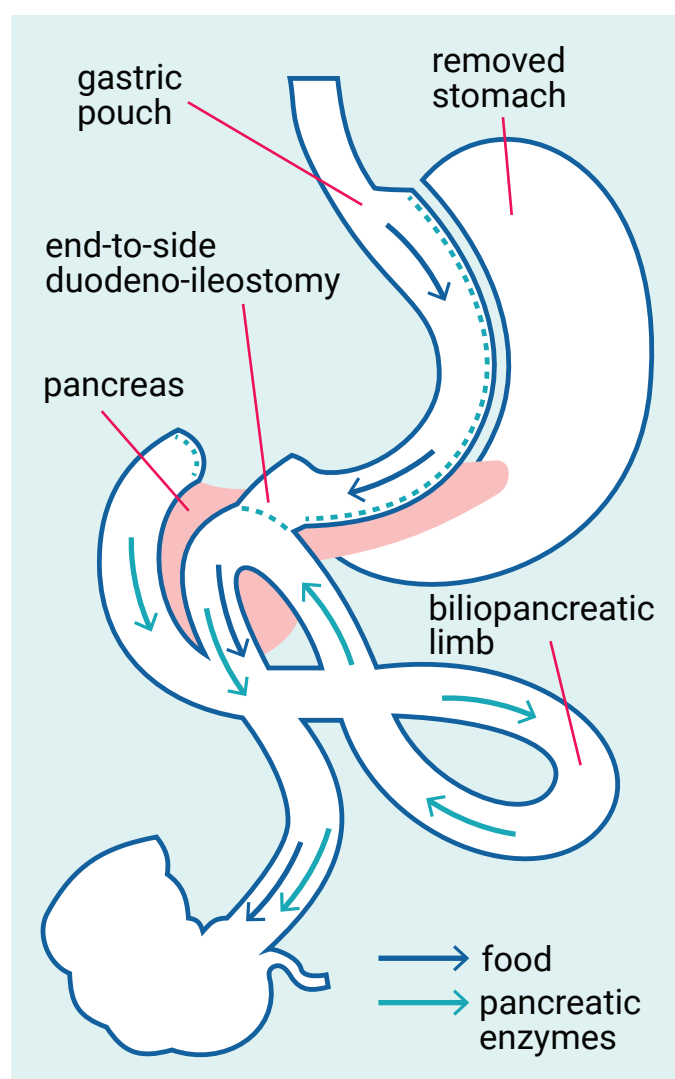
This surgery is performed totally robotically by our board-certified bariatric surgeons, using the latest Intuitive DaVinci Xi robotic system, via four small incisions. In very rare circumstances, it may need to be performed laparoscopically or as an open procedure. The hospital stay is usually one night.

Advantages

- Highly effective for long-term weight loss and remission of type 2 diabetes
- Simpler and faster to perform (one intestinal connection) than other surgeries
- Excellent option for a patient who already had a sleeve gastrectomy and is seeking further weight loss

Disadvantages

- Vitamins and minerals are not absorbed as well as in the sleeve gastrectomy or Roux-en-Y gastric bypass
- Higher associated cost and increased frequency of taking vitamins and minerals
- Newer operation with only short-term outcome data
- Potential to worsen or develop new-onset reflux
- Risk of more frequent loose bowel movements



Biliopancreatic Diversion with Duodenal Switch (BPD/DS)

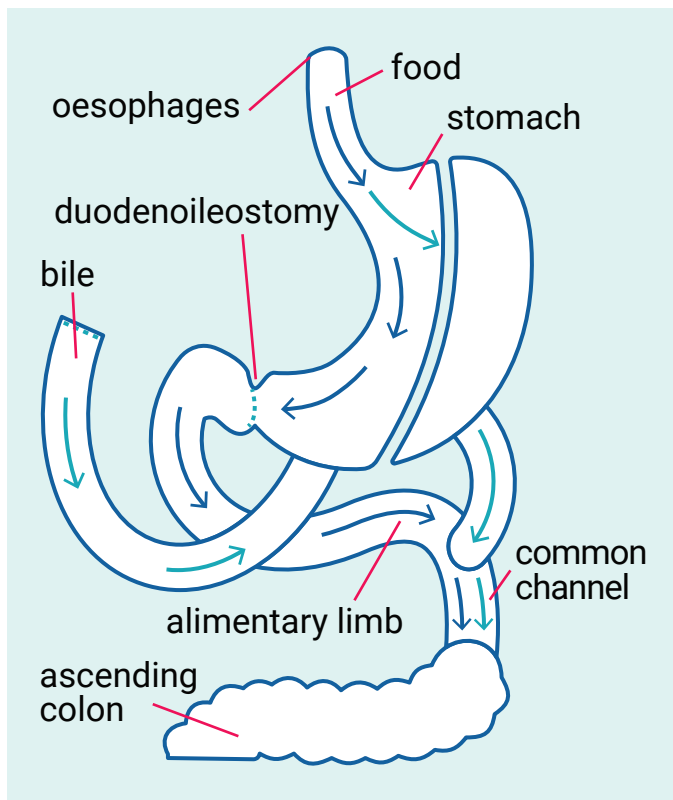
Procedure Description

The Biliopancreatic Diversion with Duodenal Switch, abbreviated BPD-DS, begins with creation of a tube-shaped stomach pouch similar to the sleeve gastrectomy. It resembles the gastric bypass, where more of the small intestine is not used.

Following creation of the sleeve-like stomach, the first portion of the small intestine is separated from the stomach.

A part of the small intestine is then brought up and connected to the outlet of the newly created stomach, so that when the patient eats, the food goes through the sleeve pouch and into the latter part of the small intestine.

The smaller stomach, shaped like a banana, allows patients to eat less food. The food stream bypasses roughly 75% of the small intestine,



the most of any commonly performed approved procedures. This results in a significant decrease in the absorption of calories and nutrients. Patients must take vitamins and mineral supplements after surgery. Even more than gastric bypass and sleeve gastrectomy, the BPD-DS affects intestinal hormones in a manner that reduces hunger, increases fullness and improves blood sugar control. The BPD-DS is considered to be the most effective approved metabolic operation for the treatment of type 2 diabetes.

This surgery is performed totally robotically by our board-certified bariatric surgeons, using the latest Intuitive DaVinci Xi robotic system, via four small incisions. In very rare circumstances, it may need to be performed laparoscopically or as an open procedure. The hospital stay is usually one night.

Advantages

- Among the best results for improving obesity
- Affects bowel hormones to cause less hunger and more fullness after eating
- It is the most effective procedure for treatment of type 2 diabetes

Disadvantages

- Has slightly higher complication rates than other procedures
- Higher associated cost and increased frequency of taking vitamins and minerals
- Highest malabsorption and greater possibility of vitamins and micro-nutrient deficiencies
- Reflux and heart burn can develop or get worse
- Risk more frequent loose bowel movements
- More complex surgery requiring more operative time

Steps Along Your Journey

Medical Evaluation

Upon entry into our program, your medical and surgical history will be evaluated by one of our nurse practitioners. This will ensure efficient navigation through the program, as well as a safe and timely surgery. This visit will be scheduled after your initial weigh-in visit once we receive your last primary care physician office visit note and recent lab work. It is strongly encouraged that you provide us with results of your routine age-appropriate medical screenings prior to surgery (i.e. mammogram, colonoscopy, etc.). Lab and diagnostic studies will be ordered as indicated. You will be referred for a behavioral health evaluation. Our nurse practitioner will schedule a follow-up visit to review your results to determine if it is safe for you to proceed with surgery from a medical standpoint. You will continue to have regular visits with your nurse practitioner after surgery. Postoperative labs should be completed one-week before your six months, one year, and annual visit to ensure your vitamin/mineral levels are in a normal range.

Nutrition Evaluation

Following your medical evaluation, you will be scheduled to see one of our bariatric dietitians. The dietitian will evaluate your weight history, current eating behaviors, social support system, and understanding of bariatric-related nutrition. Nutrition-focused labs are reviewed and customized recommendations for lifelong vitamin/mineral supplementation will be provided. Realistic expectations, including anticipated weight loss outcomes are discussed. Mutually agreed upon goals will be created to assist you in making lifestyle changes needed for your safety and success after surgery. You will be enrolled in the Nutrition & Behavior Management classes and see the dietitian for a subsequent visit. At your follow-up visit, the dietitian will evaluate your progress with preoperative nutrition goals and you will move

forward to surgery once readiness is determined. You will continue to have regular visits with your dietitian after surgery.

Nutrition and Behavior Management Classes

A series of three 1.5 hour classes taught by our Lead Dietitian/Bariatric Coordinator. You are required to complete these before surgery. You will be given specific dates to attend by the bariatric team.

The intent of these classes are to teach you how to be successful in weight maintenance through diet modification and behavior management. Good behavior management skills (i.e. being able to self-correct, self-monitor, seek support, etc.) is the strongest contributor of weight management success.

These classes are not billed to insurance, and cost \$200 total for all three classes. Payment can be made on the Mass General Brigham Patient Gateway or in the Center for Weight Management & Bariatric Surgery office.

Support Group

“Weigh” of Life Support Group – These group meetings are intended to provide education and support to patients before and after surgery. Groups are moderated by the bariatric coordinator. Groups are held via Zoom on the second Monday of each month from 6:00 pm to 7:00 pm. Occasionally, additional groups and special events are added to the schedule. Details on our Facebook group.

Behavioral Health Evaluation

An evaluation by a behavioral health provider is required before surgery. The purpose of this evaluation is to identify your goals, weight history, family history, support system strength, psychological history, and current behavioral



functioning. It can help you to learn the skills you need to be successful and begin applying them before surgery. Ability to make lasting behavior changes is one of the biggest predictors of long-term success after surgery.

Some may be nervous about what you will be asked in the evaluation, and may think you need to keep certain parts of your behavior history private. Please keep in mind that we are most interested in your success and our questions will largely address factors known to relate to successful post-surgery weight management. If we know something about your history, we can help you understand how or if it relates to your post-surgery outcome. Cost varies based on behavioral health provider, which will be explained to you at your initial medical evaluation with our nurse practitioner.

Primary Care Physician (PCP)

We require that you establish care with a PCP, and recommend you notify them that you are seeking bariatric surgery. Your PCP plays a vital role in managing and chronic medical conditions you may have to optimize your safety during and after bariatric surgery. We strongly encourage you complete all age-appropriate medical screenings prior to surgery (i.e. colonoscopy, mammogram, PAP smear, etc.), coordinated by your PCP. It may

be indicated for some patients that your PCP perform a medical evaluation or provide medical optimization or a letter of support before surgery. If you are having Roux-en-Y gastric bypass, any medications that are delayed-release, extended-release, or enteric coated should be changed to an immediate-release form by the ordering provider.

Notify your PCP of your surgery date so they can help manage your medications after surgery. We recommend you schedule a follow-up visit with your PCP one to two weeks after surgery.

Surgical Evaluation

Upon receiving medical, behavioral, and nutritional optimization for surgery, you will be scheduled to see one of our bariatric surgeons. The decision on surgery type will be made together through consideration of your preference and desired health outcomes, as well as results of lab and diagnostic studies, and risk calculators. Risks and benefits will be discussed and consent for surgery will be obtained. Assuming that no contraindications to surgery were identified, surgery and all post-operative visits will be scheduled by our Patient Services Coordinator before you leave.

Exercise

Staying physically active throughout your bariatric journey will ensure success in reaching your goals. Exercise is critical to maximize weight loss and prevent weight regain. Initiating this before surgery is essential to begin improving your overall mobility, flexibility, muscle strength, and endurance. It also helps you to establish a routine to follow during and after your surgery. Activity and exercises, if started early and resumed right after your surgery, will help you feel better, recover faster, and minimize the likelihood of post-surgical complications.

What Counts as Exercise?

You are likely incorporating small amounts of exercise naturally in your day through household chores, playing with your children at the playground, grocery shopping, shoveling, gardening, washing

the car, climbing stairs, or helping a friend move. Keep in mind that any increase in physical movement over what you are currently doing is a step in the right direction. There are two principal kinds of exercise that you should try to incorporate into your weekly routine:

Aerobic (“cardio”) exercise: defined by the American College of Sports Medicine (ACSM) as any activity that uses large muscle groups, can be maintained continuously, and is rhythmic in nature. Aerobic exercise strengthens your heart and lungs. Examples include: walking, running, dancing, swimming, hiking, and bicycling. Adults should do at least 150 minutes to 300 minutes a week of moderate-intensity, or 75 minutes to 150 minutes a week of vigorous-intensity aerobic physical activity, or an equivalent combination of moderate- and vigorous-intensity aerobic activity as recommended in *The Physical Activity Guidelines for Americans*.

Resistance (strength) training: defined by the ACSM as a form of physical activity designed to improve muscular fitness by exercising a muscle or a muscle group against external resistance. Resistance training helps increase metabolic rate, muscular strength, bone density, and endurance. Examples include: exercises using your own body weight such as arm circles, push-ups, squats, or any exercise using weight machines, dumbbells, or resistance bands. Adults should do 2 or more days a week of this type of activity, as recommended in *The Physical Activity Guidelines for Americans*.

Ideas to Begin Living an Active Life:

- Take the stairs
- Park far away
- Walk instead of drive
- Swim with your kids
- Do yard work
- Enjoy a nature hike
- Family walk after dinner
- Dance to music
- Stand instead of sit

- Go to the gym
- Take an exercise class
- Take the dog on a longer walk

Alcohol

Alcohol consumption is not recommended after bariatric surgery for the following reasons:

- Alcohol is high in calories
- Increases risk for dumping syndrome
- Impaired vitamin/mineral absorption
- Increased risk for ulcer formation
- Increased risk for alcohol use disorder after surgery

The way your body metabolizes alcohol changes after bariatric surgery, resulting in a faster absorption, a higher blood alcohol content, and a longer elimination time of alcohol. Studies have shown that after gastric bypass surgery, patients are at a higher risk for alcohol use disorder in comparison to the sleeve gastrectomy. We recommend eliminating alcohol before surgery, for at least 1 year after surgery, and in moderation after this. Some insurance companies may mandate specific abstinence guidelines.

Smoking Cessation

We require patients to quit smoking at least six weeks prior to bariatric surgery. Lifelong avoidance is recommended. Smoking increases risk for infection and impairs wound healing. At Wentworth-Douglass Hospital, the Patient & Family Learning Center offers a smoking cessation program, which has been shown to be more effective than quitting on your own. Vaping and e-cigarettes are also not recommended. Some insurance companies may mandate specific smoking cessation guidelines.

Smoking marijuana is also not recommended after surgery due to side effects of tachycardia, hypertension, and arrhythmias. Marijuana increases risk for blood clots, heart attack, and stroke. Patients who smoke marijuana often require higher doses of opioids.

Preparing For Your Surgery

At the time your surgery is scheduled, you will be given an appointment to attend a pre-op class 1-2 weeks before surgery. At this meeting, you will review what to expect the day of surgery and during your hospitalization, signs and symptoms of potential complications, and the post-operative diet.

You will be contacted by a pre-admission services representative the week before your surgery. Be prepared to provide a list of allergies and medications or supplements you are taking.

You will also receive a call from our pharmacist a week before surgery to review medications.

It is important to keep a complete list of medications and supplements (including vitamins, minerals, and herbal supplements) you are taking.

Avoid taking these medications **1 month** before surgery:

- Estrogen-based hormones and estrogen-based birth control pills should be avoided 1 month before surgery, and for 1 month after surgery due to risk for blood clots.
- Herbal supplements since they may interfere with anesthesia (Ephedra, Garlic, Ginkgo, Ginseng, Kava, St. John's Wort, Valerian, Echinacea)

Avoid taking these medications **4 days** before surgery, which will be discussed with our nurse practitioner, due to increased risk for diabetic ketoacidosis after bariatric surgery:

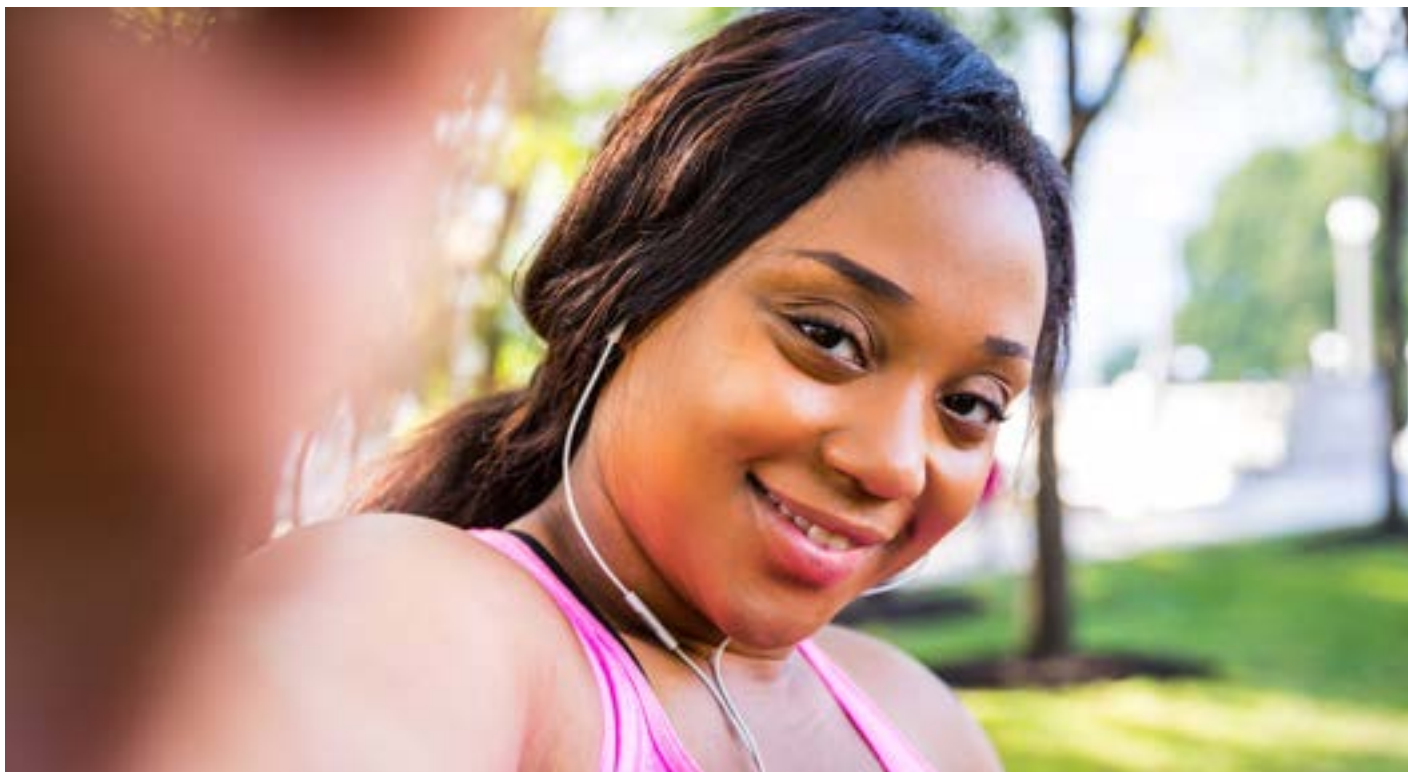
- SGLT-2 Inhibitors (canagliflozin/Invokana, dapagliflozin/Farxiga, empagliflozin/Jardiance) or combination medications containing an SGLT-2 inhibitor

Fertility & Obesity

- The combination of obesity and pregnancy may increase complication risks of birth defects,

preeclampsia, gestational diabetes, still births and cesarean deliveries.

- Obesity is associated with a 2-fold longer time to pregnancy as compared to normal weight women attempting pregnancy without interventions.
- Obesity is also associated with an increased risk of failure to achieve pregnancy after in vitro fertilization (IVF). This risk increases with increasing BMI.
- Obesity in men may also be associated with decreased reproductive function including erectile dysfunction and obesity related hormone changes that negatively impacts male fertility.
- As weight loss occurs, fertility status might be improved.
- The CDC identifies that women who have had bariatric surgery in the past 2 years have an increased risk for adverse outcomes as a result of unintended pregnancy.
- The American Society of Metabolic and Bariatric Surgery recommends that women avoid pregnancy for up to 12 to 18 months postoperatively.
- Reliable contraception should be established prior to bariatric surgery and continued for at least 12 months and up to 24 months postoperatively.
- In the event that a woman becomes pregnant following bariatric surgery, nutritional monitoring and lab screening for deficiencies should be performed every trimester. Pregnant women should be followed closely by an Obstetrician and dietitian throughout their pregnancy and advise them of their bariatric surgery status as soon as possible after pregnancy occurs.
- There is also a potential higher failure rate of oral contraception in women with obesity. This failure rate may increase following Roux-en-Y gastric bypass and possibly to a lesser extent, following sleeve gastrectomy. This is due to the potential



decrease in absorption of the medication after surgery. Non-oral contraceptive methods may be a more appropriate choice following bariatric surgery.

The Week Before Surgery

- Complete pre-op labs as instructed.
- Attend preop education class
- Initiate constipation protocol as instructed in preop education class 3 days before surgery (if applicable)

The Day Before Surgery

The day before surgery, you will receive a call between 4:00 pm and 6:00 pm to notify you of your arrival time. If you are unable to be reached, or you missed our call, please call the main hospital number at (603) 742-5252.

Prepare items you will need to bring with you to the hospital:

- This handbook – it's a great place to put questions you may have for the surgeon who will visit you daily during your stay.
- CPAP machine and mask, if applicable
- Glasses or contact lenses with lens case and solution, if applicable
- A list of medications/supplements including dosage, frequency. The hospital will provide you with your medications during your stay.
- Identification, insurance cards and/or necessary insurance paperwork
- Jewelry, valuables, and money should be left at home
- Makeup and nail polish must be removed
- Loose-fitting, comfortable clothing that is easy to put on for discharge. In the hospital, you will be wearing hospital gowns or robes due to IVs, urinary catheter, and abdominal dressings that may be needed.
- Non-slip sneakers or slippers
- Personal hygiene items (toothbrush, deodorant, razor, etc.)
- Books, magazines, laptop/tablet/other wireless devices for use of free guest WiFi (optional)

Pre-operative diet

All patients are required to complete the one-day preoperative diet the day before surgery. Failure to follow this could result in serious harm and cancellation of your surgery. Some patients may be required to complete a two-week pre-operative “liver shrinking” or very low-calorie diet (VLCD).

One Day Before Surgery

3 Protein Shakes & Clear Liquids ONLY

Protein shake options (3 shakes total):

- **If ready-to-drink:** 8 ounce or 11 ounce bottles
- **If powder:** Mix 1 serving powder with 8 ounces water, skim/1% milk, or unsweetened non-dairy milk and optional ice.
- Do not blend any fruit, vegetables, peanut butter, etc. into your protein shake

Clear liquid options

(64 ounces or more total):

- Water, broth, sugar free flavor mixes (i.e. Crystal Light, Mio drops, etc.), Fruit 20 water, Hint Water, Propel, Gatorade or Powerade zero, sugar free popsicles, sugar free Italian ice, sugar free jello.
- Drink a 10 ounce bottle of **Ensure Pre-Surgery** in the evening
- If having a revision surgery, drink 20 ounces of Gatorade G2 instead (any color)
- No caffeine (no caffeinated protein shakes)

Day of Surgery

Clear Liquids ONLY

- From midnight until 2-3 hours before arrival time, clear liquids (any color) only are allowed
- Stop drinking **3 hours** before arrival time if you are diabetic or have gastroparesis
- Stop drinking **2 hours** before arrival time for all others
- Drink a 10 ounce bottle of **Ensure Pre-Surgery** and finish drinking it 2-3 hours before arrival time
- If having a revision surgery, drink 20 ounces of Gatorade G2 instead (any color)
- No caffeine
- No protein waters/shakes
- Do not take your vitamins
- **Do not eat any food!** No candy, mints, etc.

Ensure Pre-Surgery is available at the WDH Outpatient Pharmacy by request at the counter (no prescription required, open Mon-Fri 7:00 am - 5:30 pm). It's also available on Amazon. If you forgot to purchase, you can substitute 20 ounces **regular** (full sugar) Gatorade in any color/flavor.

Pick up prescription at your pharmacy for Scopolamine patch

Before going to bed the night before surgery, place patch behind the left ear as directed on medication instructions.

Shower the night before surgery and the morning of surgery

Getting your skin ready for surgery is extremely important. Chlorhexidine Gluconate (CHG) 4% is a special chemical found in soaps such as Hibiclens® and other brands. You will be given this when you schedule your surgery. Everyone's skin has bacteria; this soap can reduce the number of bacteria on your skin. Follow these instructions to reduce your risk of infection:

1. Wash your hair, face, and body, with your normal shampoo, conditioner and soap. Rinse completely.
2. Turn off the shower.
3. Pour a quarter size amount of liquid CHG/ Hibiclens soap onto a wet, clean washcloth and apply to your trunk. (**Do not** use CHG on face, hair, or genital area)
4. Rub the soap filled washcloth over your entire torso, apply more soap as needed. Avoid scrubbing your skin too hard. Pay particular attention to your armpits, buttocks, under your breasts and groin folds. Keep the liquid soap on for at least 2 minutes.
5. Turn on the shower and rinse the liquid soap off your body. Do Not use regular soap after washing with the Hibiclens.
6. Pat your skin dry with a freshly-laundered, clean towel after each shower/bath cleansing.
7. Dress with freshly-laundered clothes after each shower/bath cleansing and sleep with clean bed linens.
8. Do not shave or remove and body hair below the neck for two days prior to surgery. Facial shaving is the only thing permitted before surgery.
9. Do not apply lotions, powder, or deodorant to your body.

The Day of Surgery

- When you arrive at Wentworth-Douglass Hospital, park in the South Entrance. Enter the South Entrance glass doors and take the first elevators on your right, elevators 8 & 9, to the 2nd floor and exit to your left to the reception desk for Same Day Surgery. The receptionist will check you in and give you your ID bracelet.
- After you check in with the receptionist, one of the Same Day Surgery staff will come out and bring you (and your family member/coach) to one of the pre-op rooms where the staff will get you ready for surgery. This includes having your weight measured, starting your IV, answering any questions, and completing necessary paperwork. You will see the surgeon and a nurse. You will meet an anesthesiologist and complete your anesthesia consent.
- You will receive medications before surgery that are part of our Enhanced Recovery After Surgery (ERAS) protocol to reduce your surgical stress response, control your pain, and facilitate recovery.

During Surgery

- After being taken into the operating room, you will be moved to a table and prepared for surgery. Many safety precautions are taken to prevent infection or injury during surgery. You will be carefully positioned on the table with safety straps and padding. Once you are asleep, your abdomen will be cleaned with an antibacterial solution and draped with sterile sheets. Antiembolic devices will be applied to your legs. These devices apply intermittent compression to your legs during surgery. They are necessary for maintaining good circulation in your leg veins and preventing the formation of blood clots. You will continue to have these on your legs during your hospital stay. A blood pressure cuff and electrocardiogram leads will be placed on you to monitor your condition during and after surgery. Once you are asleep, the anesthesia team will perform a TAP block (transverse abdominis plane), which is an injection of local anesthetic

to the muscle layer to help reduce post-operative pain. You may have a urinary catheter placed based on medical necessity and type of surgery, typically removed after surgery. Before you are taken out of the operating room, you will be transferred to a bed for comfort. The surgeon will speak to your family after surgery.

- When the operation is completed, you will be taken to the Post Anesthesia Care Unit (PACU) where you will remain for a few hours. During this time, pain control will be established. The nurses will ask you to report your pain on a scale of 0 – 10, 0 = no pain, and 10 = the most pain imaginable. The nurses will medicate you to keep your pain level tolerable and will monitor your vital signs.
- Following surgery, it is important to start moving to promote good circulation. You will be asked to start by moving your ankles, and eventually your legs once you are more awake. Bending or flexing your legs will help reduce the chance of low back pain, which is sometimes caused by lying on your back for extended periods. You will also be encouraged to take deep breaths.

- Once your pain is manageable and nausea is controlled, you will be taken to the nursing unit where a nurse will care for you.

During Your Hospital Stay

- After arrival to your hospital room, nurses will continue to check your blood pressure, pulse, and oxygen levels frequently. The nurse will assist you to get out of bed a few hours after you arrive to your room, which is important to prevent formation of blood clots in your legs.
- Notify the nurse if you experience nausea so that they can address it.
- Walk the hallways at least 1 time per hour to alleviate gas pain and to prevent blood clots.
- Use your incentive spirometer at least 1 time every 15 minutes to help fully expand your lungs and prevent pneumonia.
- Your nurse will provide you with all beverages and protein shakes needed. You will not need to order any dietary items from the kitchen.



Discharge Instructions

The decision to discharge after surgery is made on an individual basis. Before you are discharged, you must be able to get out of bed and walk, your pain must be well controlled, you must be able to drink fluids without difficulty, and must be able to tolerate protein shakes. Arrangements must be in place for someone to drive you home. You will receive written discharge instructions when you leave the hospital, which will include the following:



Follow these instructions:

- You may take a shower the day after discharge. No submerging in water until cleared by your surgeon (no swimming/baths).
- Keep all follow up appointments with your surgeon and dietitian.
- Schedule a visit with your Primary Care Provider and endocrinologist (if applicable) 1-2 weeks after surgery.
- Follow your diet exactly as prescribed. Do not advance your diet until your dietitian visit.
- Do not push, pull or strain (vacuuming, shoveling, mowing the lawn).
- Do not lift more than 20 lbs. until directed by your surgeon.
- Do not drive if taking opioid pain medication.
- Check with your doctor before returning to work.
- To avoid constipation, drink at least 64 ounces of fluid daily and follow the Miralax protocol.
- Take your usual medications, unless otherwise directed by your doctor.

- Avoid caffeine and carbonated beverages until you meet with your dietitian.
- Avoid smoking and alcohol.
- Avoid use of NSAIDs (Non-Steroidal Anti Inflammatory drugs) entirely if you had gastric bypass. Limit use NSAIDs if you had the sleeve gastrectomy.
- Walk regularly to avoid blood clots.
- Continue using incentive spirometer at least 1 time every 15 minutes for the first week.

Call your doctor if you have:

- Tachycardia (fast heart rate >100 beats per minute)
- Abdominal pain (worsening, not relieved by pain medication)
- Chest pain, shortness of breath
- Fever and chills
- Nausea and vomiting
- Leg swelling, pain
- Dehydration
- Diarrhea
- Bleeding, drainage, swelling, redness, opening, foul smell or red streaks from incision sites.
- Pain not relieved by pain medications
- Any new or unusual symptoms, questions or concerns.

You are the most important factor in your recovery.

Follow the above instruction carefully!

Potential Post-Operative Symptoms, Problems and Solutions

- **Swelling and bruising:** Moderate swelling and bruising are normal. Severe swelling and bruising may indicate bleeding or possible infections.
- **Discomfort and pain:** Mild to moderate or pain is normal after any surgery. If the pain becomes severe and is not relieved by pain medication, notify the bariatric clinic using contact instructions.
- **Numbness:** Small sensory nerves to the skin's surface are occasionally cut when the incisions are made or interrupted by undermining of skin during surgery. The sensation in those areas gradually returns, usually within 2-3 months when the nerve endings heal spontaneously. Be especially careful not to burn yourself when applying heating pads to an area that may have postoperative numbness.
- **Itching:** Itching and occasional small shooting electrical sensations within the skin frequently occur as the nerve endings heal. These symptoms are common during the recovery period. Ice, skin moisturizers, Vitamin E oil, and massages are often helpful.
- **Pain or swelling in legs:** Pain, tenderness, or swelling in the legs, particularly one leg, can be a sign of a blood clot forming in the deep veins of the leg. This is a serious condition that can be life threatening if a clot breaks loose and travels to the lungs. A sudden onset of shortness of breath could be a sign of a blood clot to the lungs. If you develop these symptoms, go to the nearest emergency room. To prevent blood clots, exercise regularly, walk regularly, and stay hydrated.
- **Wound infection:** Redness, swelling, increasing pain or drainage from a surgical incision site may be a sign of infection. If any of these symptoms develop, call the bariatric clinic.
- **Stenosis or stricture:** A stenosis, stricture, or narrowing of the outlet of the stomach can occur as the area heals. The usual symptom

Please call us with any problems, questions, or concerns after surgery.

Examples include:

- Abdominal pain
- Chest pain, shortness of breath
- Fast heart rate
- Fever and chills
- Nausea and vomiting
- Leg swelling, pain
- Dehydration
- Diarrhea

During normal business hours, Monday-Friday from 8:00 am to 5:00 p.m., call the bariatric clinic at (603) 610-8095.

After hours, call the bariatric clinic at (603) 610-8095 to reach the on-call bariatric surgeon.

In the case of an emergency, go directly to the nearest emergency room or dial 911.

is vomiting after eating solid food in a patient who has previously been able to eat solid food. The problem often worsens and can lead to dehydration. The stricture can usually be dilated with a balloon during an endoscopic procedure, which is outpatient without sedation.

- **Nausea:** Nausea is often related to fullness, sensitivity to odors, pain medicine, not eating, postnasal drip, or dehydration. If you experience nausea for these reasons, medication is helpful. Nausea is often related to dehydration. It is important to stay hydrated, sipping fluids continuously throughout the day. Recording your fluid intake in a notebook or your mobile app will help to ensure you are meeting your 64 ounce per day minimum goal. If you have difficulty drinking

due to nausea, you may want to try peppermint tea, fennel tea, decaffeinated green tea, or hot or cold water with lemon. Persistent nausea and/or vomiting can lead to dehydration and electrolyte imbalances. To prevent this, we recommend you recognize when you are full by eating more slowly, taking smaller bites, chewing until food is completely liquefied (think applesauce-like texture), and avoid eating and drinking at the same time.

- **Vomiting:** Vomiting is not a normal reaction to eating after surgery. If you vomit, review the following list of incorrect behaviors that may cause vomiting:
 - » Eating too quickly
 - » Not chewing food properly
 - » Eating food that is too dry
 - » Eating too much food at one time
 - » Taking too large of bites
 - » Introducing solid foods too soon after surgery
 - » Drinking liquids with meals or immediately after meals
 - » Eating foods that don't agree with you

To avoid vomiting after eating, focus on correcting the above behaviors. In the beginning, it can be difficult to gauge the amount of food you should eat that will make you full. It is likely that very little food will result in fullness, maybe only a few teaspoons in the beginning. It is important to learn the signals your body gives when you're nearing fullness, and stop at the last bite when fullness occurs. Persistent vomiting can lead to dehydration and electrolyte imbalance, and long-term, can lead to vitamin deficiencies. If vomiting is persistent, stop eating solid foods. Vomiting may indicate a stricture or blockage of the outlet of the stomach. If you are vomiting, notify the bariatric clinic.

- **Bowel habits:** The surgery restricts the amount of food and fiber (or roughage) consumed, therefore, your bowel movements will be much smaller in size and less frequent. Some experience loose stools, some experience constipation. Once



your intestines adapt, it is normal to have 1-3 bowel movements of soft stool per day. It may be foul smelling and associated with flatulence. Immediately after surgery, if cramping and loose stools (more than 3 per day) occur, or constipation persists for more than 3 days, notify the bariatric clinic. After SADI-S and BPD-DS, it is expected to have 2-5 loose bowel movements daily. If you have persistent diarrhea beyond 1 year from your surgery, call your surgeon.

For constipation:

- » Drink more calorie-free fluids (at least 64 ounces a day)
- » Stay active and walk more often
- » Increase fiber intake
- » If you are on stage 4, try pureed beans, fruits, vegetables or oatmeal
- » If you are on stage 5, try beans, peas, lentils, fruits, vegetables, whole grains

- » You may need to add a laxative such as Miralax
- » If constipation persists for more than 3 days, notify the bariatric clinic.

For diarrhea:

- » Eat slower
 - » Avoid overeating
 - » Avoid drinking and eating at the same time
 - » Limit foods labeled “sugar free” since they may contain sugar alcohols (listed on Nutrition Facts label if present)
 - » Limit intake of caffeine
 - » Limit intake of sugar alcohols (Goal <5g per serving)
- **Dehydration:** Inadequate fluid intake can lead to dehydration. Since you cannot drink quickly after surgery, this can happen easily. If you go a prolonged period during the day without drinking, you are unable to compensate your fluid intake for that time missed. Symptoms include fatigue, dark colored urine, dizziness, fainting, lethargy, nausea, a constant dull ache over the lower back, and a whitish coating on the tongue. Your doctor may order blood testing to determine the severity of dehydration. Dehydration increases your risk for bladder and kidney infections, and increases your risk for developing blood clots in your legs. If you think you may be dehydrated, call the bariatric clinic. In some cases, you may need to come to the hospital on an outpatient basis for IV fluids.
 - **Dizziness/Lightheadedness/Fatigue:** Dehydration, inadequate calorie/protein/carbohydrate intake, vitamin deficiencies, low blood pressure, or medications are possible reasons for dizziness, lightheadedness, or fatigue. It is important to eat on a regular schedule, avoid skipping meals, drink adequate calorie-free fluids (64 ounces a day minimum), take your vitamins as directed daily, and check your medications for potential side effects. If your blood pressure is low, it may be helpful to add salt to your food, drink chicken broth, or beverages with added electrolytes like Powerade Zero.

- **Dumping syndrome:** Dumping syndrome can occur (mostly with gastric bypass) after eating high sugar or high fat foods, even if in a small amount, too quickly. When this happens, food passes very quickly from the stomach to the small intestine. Water from surrounding blood vessels is drawn into the small intestine resulting in nausea, vomiting, sweating, bloating, diarrhea, dizziness, sweating, low blood pressure, and stomach pain. Symptoms can occur between 30 minutes and 3 hours after eating. To prevent dumping syndrome:
 - » Avoid high sugar foods (no more than 10 grams total sugar per meal or snack)
 - » Avoid high fat foods
 - » Avoid drinking and eating at the same time
 - » Avoid alcohol
- **Taste changes:** You may experience changes in taste and food preferences, which is often temporary. Please call your dietitian if you feel these taste changes are preventing you from getting enough protein or fluids.
- **Flatulence:** It is important to remember that everyone has gas in the digestive tract. Gas comes from two main sources: swallowed air and normal breakdown of carbohydrate foods by harmless bacteria that is naturally present in the large intestines. Foods that can increase gas include broccoli, Brussels sprouts, cabbage, cauliflower, corn, dried beans, and onions. Eating too quickly, drinking carbonated beverages or alcohol and chewing gum can also increase gas. Gas-X or simethicone can help reduce flatulence for some individuals.
- **Heartburn:** Heartburn, especially with the sleeve gastrectomy, can occur after surgery. It is important you take your antacid medication as prescribed to you upon discharge. Avoid caffeine, alcohol, and spicy foods. Check the side effects of any medications you are taking that may cause heartburn. Call the clinic for persistent heartburn.
- **Leg Cramps:** Leg cramps may be due to electrolyte imbalance or not getting enough

fluids. To prevent leg cramps, ensure that you are eating a balanced diet, meeting your fluid goals of 64 ounces per day minimum, taking your vitamins as directed daily, and are physically active. If you are meeting your fluid goals, it may be helpful to incorporate low sugar drinks containing electrolytes such as broth, Gatorade Zero or Powerade Zero. Call the bariatric clinic if cramps persist or if pain, swelling, or redness occurs.

- **Hernia:** Hernias are less common with robotic-assisted laparoscopic procedures in comparison to open procedures. A hernia occurs when a section of bowel protrudes through a weakness or opening in the abdominal wall. You may notice a bulging in your abdomen and pain. The pain may be dull and aching or sharp. You may feel pain when you lift a heavy object, cough, or strain during urination. Minimize the risk of developing a hernia by avoiding heavy lifting for three months after surgery. You may also experience nausea and vomiting. If you believe you have a hernia, schedule an appointment with your surgeon. Surgery is the only way to fix a hernia. If the hernia comes out, will not go back in when you lie down, and is associated with severe pain, nausea, and/or vomiting, then call the bariatric clinic or go to the emergency room.
- **Gallstones:** Gallstones can develop after rapid weight loss if you still have your gallbladder. Nausea, vomiting, and pain in the upper abdomen or back could be a sign of gallstones. If you develop these symptoms, call your surgeon to schedule an appointment.
- **Vitamin and mineral deficiencies:** It is important you take your vitamin and mineral supplements recommended by your dietitian lifelong. Refer to the vitamin/mineral instructions section of this manual for more information. Vitamin deficiencies can lead to anemia, confusion, memory loss, depression, mineral depletion of the bones, hair loss, and much more. Some of the effects of vitamin and mineral deficiency cannot be reversed. Most people do not develop deficiencies if they take their vitamin and mineral supplements as directed. Your vitamin lab values will be monitored regularly after surgery and reviewed with you. Sometimes, additional vitamin/mineral supplementation above the standard recommendation is needed.
- **Ulcers:** Ulcers can occur on or near the connection between the stomach pouch and the small bowel after gastric bypass. It is important you take your prescribed antacid medication in the early months after surgery to prevent ulcers. Pain in the upper middle abdomen could be a sign of an ulcer and should be reported to your surgeon. Ulcers are more likely to occur in patients who smoke or take non-steroidal anti-inflammatory drugs (NSAIDs) such as Aleve, Advil, Aspirin, Ibuprofen, and many more. Check with your doctor or pharmacist before taking a new medication. Tylenol is considered safe and comes in a liquid form. An ulcer can usually be treated with medication.
- **Redness and scars:** All new scars are red, dark pink, or purple. The scars will take about a year to fade. We recommend that you protect your scars from the sun for a year after surgery. A good deal of sunlight can reach the skin and cause damage, even through a bathing suit. Wear a sunscreen with an SPF of at least 15 when exposed to the sun. You will have scars after surgery. Most procedures are done laparoscopically, resulting in a few small incisions, but in some circumstances, the surgery may need to be performed as an “open” procedure, resulting in one larger incision. If you are concerned about the appearance of your scar, there is a way to make them less visible. Once your incision is fully healed, you may start using silicone pads such as Curad Scar therapy to make the scars look softer, smoother, flatter, and closer to your skin’s natural color. Keep your scars out of the sunlight to help them heal properly.
- **Hair Loss:** Some hair loss is expected in the first 6 months after surgery due to your body’s response to rapid weight loss. To prevent hair loss due to inadequate nutrition, ensure you are taking your bariatric vitamins daily as recommended and getting enough protein. If you hair loss starts after 6 months or continues beyond 12 months, talk with your dietitian.

Nutrition Guidelines for Bariatric Surgery

Pre-Operative Nutrition Goals Checklist

- Maintain or achieve pre-op weight loss goal (My goal weight: _____)
- Keep a daily food journal
 - Measure and weigh all food and drinks
 - Count protein (60-80 grams/day)
 - Count fluid (64 ounces/day)
- Purchase bariatric vitamins/mineral supplements (do not purchase until advised)
- Purchase a variety of protein supplements and practice drinking prior to surgery
- Exercise 30 minutes most days of the week
- Take 20-30 minutes to complete each meal
- Do not eat and drink together; wait 30 minutes after eating to drink
- Avoid soda, juice, sweetened or calorie-containing drinks and alcohol
- Eliminate caffeine-containing beverages and carbonated beverages 2 weeks before surgery, and avoid for at least 6 weeks after surgery.
- Demonstrate understanding of all post-operative bariatric diet stages
- Read the Nutrition Guidelines section of this handbook
- Attend at least one educational support group

Food Journaling

A detailed food journal has multiple benefits including:

- Increased accountability and awareness of food and drink consumed
- Greater understanding by dietitian of patterns in patient eating
- Serving as a tool for counting protein and fluid consumed
- A tool to identify potential food intolerances and weight plateaus

It is recommended that you keep a food journal to track all meals, snacks, and beverages consumed before and after surgery. You may choose to make copies of the attached example form, or simply use a notebook to record required information. Additionally, you may use a smart phone application to track food and drink consumed, examples include:

MyFitnessPal • Loselt • FitBit • Baritastic (connect with us using program code 25252)

What should I include in my food journal?

- Everything you eat and drink
- Portion of food/drink consumed
- Time of consumption
- Protein amounts (in grams)
- Fluid amounts (in ounces)

Example Food Journal

Time	Foods and Drinks	Portion Consumed	Protein (grams)	Fluid (ounces)
8 a.m.	Whey protein powder	1 scoop	20	0
	Skim milk	8 ounces	8	8
	Frozen berries	½ cup	0	0
9 a.m.	Water	16 ounce bottle	0	16
10 a.m.	Greek yogurt, reduced sugar	1 individual container	15	0
noon	Tuna, canned in water	3 ounces	21	0
	Salad with lettuce, tomato, peppers, onions	2 cups	0	0
	Light salad dressing	2 tablespoons	0	0
1 p.m.	Crystal light	1 packet	0	16
2 p.m.	String cheese	1	5	0
	Banana	1 small	0	0
3 p.m.	Vitamin Water ZERO	1 bottle	0	20
5 p.m.	Skinless chicken breast, baked	3 ounces cooked	21	0
	Broccoli, steamed	1 cup	0	0
	Brown rice	½ cup	0	0
7 p.m.	Water	1 bottle	0	16
Total protein and fluid:			90	76

Exercise Type: Walking

Exercise Minutes: 30

Understanding Food Labels

Claims on the front of food packages can be confusing. The best way to know what is in your food is to check the “Nutrition Facts” label and the ingredient list. **Never assume a food is safe to eat after surgery, always check the label before eating!**

Nutrition Facts	
8 servings per container	
Serving size	2/3 cup (55g)
Amount per serving	
Calories	230
% Daily Value*	
Total Fat 8g	10%
Saturated Fat 1g	5%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 160mg	7%
Total Carbohydrate 37g	13%
Dietary Fiber 4g	14%
Total Sugars 12g	
Includes 10g Added Sugars	20%
Protein 3g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 8mg	45%
Potassium 235mg	6%

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

Servings per container

This tells you how many servings you should get from the whole package. Is it realistic?

Serving size; All information listed on the label is based on this amount.

Calories

A measure of energy. Everyone has different calorie needs. Too many calories will result in weight gain. Reducing calories will result in weight loss. Ask your dietitian how many calories you need.

Protein

Your protein goal is 60-80 grams per day. Include foods with protein at most meals and snacks. NOTE: Not all foods with protein are healthy! Check other nutrients to make sure a food is healthy.

Other nutrients to check (per serving):

- **Total Sugars:** We recommend you limit total sugar to no more than 10 grams at one sitting for prevention of dumping syndrome.
- **Total Fat:** We recommend you limit total fat to no more than 10 grams at one sitting for prevention of dumping syndrome.
- **Dietary Fiber:** 3 grams or more
- **Sugar Alcohols:** 10 grams or less (only listed on the label if present)

You can also check the % Daily Value:

- 5% or less is considered low
- 20% or more is considered high

Ingredients list:

It is listed below the Nutrition Facts label. Ingredients are listed from most predominant, to least. Avoid products where various forms of sugar (sugar, honey, corn syrup, etc.) are listed earlier in the ingredients list. To ensure you are selecting a whole grain product (bread, crackers, cereal, etc.), the first ingredient listed should contain the word “whole”.

Vitamin & Mineral Supplement Guidelines

Why do I need to take them?

Vitamins and minerals are absorbed differently after surgery. In order to avoid deficiencies that may occur as a result of surgery, it is required that you take the vitamins and minerals listed below lifelong. Below is a list of potential complications that can arise from vitamin/mineral deficiency:

- Anemia
- Dizziness, unsteady gait
- Irritability
- Fatigue
- Dry skin, brittle nails
- Memory loss, confusion
- Swollen tongue
- Depression
- Numbness or tingling in fingers/toes
- Diarrhea

Note: Experiencing these symptoms alone would not indicate that you have a vitamin/mineral deficiency. You will have regular lab work completed after surgery that would best indicate if a deficiency were present.

What form of vitamins do I need to take?

Vitamins come in many different forms, but not all are appropriate after surgery. See the list below to help choose the right form of supplements:



Acceptable Form

- Chewable
- Liquid
- Tablet/capsules smaller than an M&M
- Tablet/capsules that are crushed
- Sublingual or fast-dissolve
- Nasal spray
- Soft chews or chewy bites



Not Acceptable Form

- Gummy
- Timed-release, delayed-release, or enteric-coated
- Tablets/capsules larger than an M&M (until 1 month after surgery if tolerated)
- Transdermal or skin patches

Where can I purchase supplements?

- WDH Outpatient Pharmacy
- Amazon.com or other bariatric retail websites

When should I start taking them?

- Before surgery (only if advised to by your dietitian)
- Two weeks after surgery (when advised to by your dietitian at your first follow-up appointment)

How will I remember to take them?

- Organize in pill boxes
- Set alarms/reminders in phone
- Medication reminder apps
- Take at the same time you do another task (i.e. brush your teeth)

How much do I need?

Below is a list of recommended amounts of each vitamin and mineral needed to prevent a deficiency after surgery. Your dietitian will guide you on



choosing the right supplements that contain everything listed below.

- Iron: 45-60 mg (females)
- Iron: 18 mg (for males without history of anemia)
- Zinc: 8-22 mg
- Copper: 1-2 mg
- Thiamine (B1): 12 mg
- Vitamin A: 5000-10000 IU
- Vitamin D: 3000 IU
- Vitamin E: 15 mg
- Vitamin K: 90-120 mcg
- Vitamin B12: 350-500 mcg
- Folate: 400-800 (800-1000 for menstruating women)
- Calcium: 1200-1500 mg (1800-2400 mg after SADI-S, BPD-DS)

This information can be found on the "Supplemental Facts" label on the back of your supplement bottle.

Which ones should I buy?

Vitamin and mineral supplements can be confusing. Your dietitian will provide individualized recommendations on which supplements to purchase.

Bariatric Multivitamin (with or without iron)

Recommended brands:

For Sleeve Gastrectomy & Roux-en-Y Gastric Bypass:

- Opurity Bariatric Multivitamin (available without iron, with 45 mg iron)
- ProCare Health Bariatric Multivitamin (available without iron, with 18 mg iron, with 45 mg iron)
- Bariatric Pal Multivitamin ONE (available without iron, with 18 mg iron, with 45 mg iron, with 60 mg iron)
- Celebrate ONE Multivitamin (available without iron, with 18 mg iron, with 45 mg iron)
- Bariatric Advantage Ultra Solo Multivitamin (available without iron, with 45 mg iron)
- Celebrate Multi Complete (available without iron, with 45 mg iron, with 60 mg iron)
- Bariatric Fusion ONE Per Day Capsule with 45 mg iron
- Bariatric Fusion Multivitamin (available without iron, with 45 mg iron)
- Shiny Leaf Bariatric Multivitamin (available without iron, with 45 mg iron)

For SADI-S & BPD-DS:

- Celebrate Multi-ADEK (available without iron, with 60 mg iron)
- ProCare Health DS/SADI Bariatric Multivitamin (available with 60 mg iron)
- Bariatric Advantage Advanced Multi EA (available with 45 mg iron)
- Bariatric Advantage High ADEK Multi (available without iron)
- Bariatric Advantage Ultra Multi (available with 45 mg iron)
- Bariatric Fusion Multi-ADEK capsules (available with 60 mg iron)
- Bariatric Fusion Multi-ADEK chewable (available with 45 mg iron and some calcium)

Notes:

A large 2017 study among gastric bypass patients found that use of a specialized bariatric multivitamin resulted in fewer vitamin and mineral deficiencies after surgery in comparison to a standard over-the-counter multivitamin.

Calcium Citrate

Recommended brands:

- Citracal or generic brand calcium citrate tablets (~300 mg calcium per 1 regular tablet)
- Citracal or generic brand calcium citrate petite tablets (~200 mg calcium per 1 petite tablet)
- Opurity Calcium Citrate Plus Chewable (650 mg calcium per 2 tablets)
- Celebrate Calcium PLUS 500 Chewable (500 mg calcium per 1 tablet)
- Bariatric Advantage Calcium Citrate Chewable (500 mg calcium per 1 tablet)
- Bariatric Advantage Calcium Citrate Chewy Bite (500 mg calcium per 1 bite)
- Celebrate Calcium Citrate Soft Chew (500 mg calcium per 1 soft chew)
- Bariatric Fusion Calcium Citrate Soft Chew (500 mg calcium per 1 soft chew)
- Bariatric Pal Calcium Citrate Soft Chew (500 mg calcium per 1 soft chew)

Notes:

- Check the label to ensure “citrate” is listed beside calcium on the label.
- Other forms of calcium are not well absorbed, and over time, can lead to formation of kidney stones.
- Calcium supplements often contain vitamin D3 and magnesium, which is ok to take.
- Ok to take without food.
- Doses should be taken at least 2 hours apart.
- Do NOT take with iron.
- Take 2 hours apart from multivitamin (since it contains iron).

Schedule

It is important to take your vitamins at the right times to maximize absorption. Use the recommended schedule below and work with your dietitian to select best timing.

Breakfast	• Bariatric multivitamin (with or without iron as recommended)
Lunch	• Calcium citrate
Dinner	• Calcium citrate
Bedtime	• Calcium citrate (if recommended 3 times a day)

Interactions with other medications:

- Avoid taking your multivitamin or iron within 2 hours of thyroid medications (i.e. Synthroid, levothyroxine, etc.)
- Avoid taking your multivitamin or iron within 4 hours of taking antacid medications (i.e. omeprazole, Prilosec, pantoprazole, protonix, etc.)

Beverages and Hydration

Drinking the right type and amount of fluid will help you to stay well hydrated to feel your best after surgery. Immediately after surgery, you will not be able to drink very quickly. You also will need to avoid drinking while eating and for 30 minutes after eating. Some people develop taste changes to various fluids. This can make it difficult to get enough fluid immediately after surgery.

Drinking enough fluids will help to:

- Prevent dehydration
- Prevent constipation
- Eliminate waste products from the body
- Keep you full between meals

After surgery, **your daily fluid goal is a minimum of 64 ounces**. You may need additional fluid during times where you sweat more, such as during exercise or when in the sun or a hot environment. It is important you track your fluid intake in the beginning to make sure you are meeting your goal. Monitor for signs of dehydration including dry mouth, dark urine, infrequent urination, headache, and nausea. Call the clinic if you are having difficulty getting enough fluid, do not wait until symptoms worsen.

Tips for Tracking Fluid

- While in the hospital, you will drink slowly out of a 1 ounce medicine cup.
- When you are discharged from the hospital, continue to track fluid in your food journal
- Drink from a water bottle or drinking glass that has ounces indicated.
- For example, if you drink from a reusable 16 ounce water bottle, you will know you will need to drink four 16 ounce bottles to meet your fluid goal.

Tips for Meeting Fluid Goals

- Half of your fluids (32 ounces) should be from water or clear liquids
- Avoid drinking **ONLY** electrolyte fortified

beverages (i.e. Gatorade G2, Powerade Zero) since this can result in diarrhea

- Keep water with you at all times, take small sips periodically throughout the day
- Limit activities that inhibit your ability to drink, such as taking a nap
- Do not drink with meals and avoid drinking for 30 minutes after eating. This allows you less time to drink.
- Experiment with varied temperatures of fluids: room temperature, hot, cold, or iced
- Avoid caffeinated beverages in the first 6 to 8 weeks after surgery to allow for healing. After this, limit intake of caffeinated beverages since they can potentially worsen acid reflux. Avoid caffeine completely if you have an existing gastric ulcer.
- Avoid carbonated beverages in the first 6 to 8 weeks after surgery to allow for healing. After this, limit intake of carbonated beverages if you notice worsening acid reflux, pain upon swallowing, or abdominal discomfort. There is no evidence that carbonation “stretches” your pouch.

Appropriate Fluid Choices

All liquids listed below are hydrating fluids and contribute toward your daily fluid goal:

- Water
- Decaf coffee
- Decaf or herbal tea
- Broth
- Skim, 1%, soy, or unsweetened non-dairy milk
- Protein shakes
- Sugar free drinks
- Sugar free jello
- Sugar free popsicles
- Sugar free Italian ice

Portion Guide

Measuring your food can help to ensure that you are eating the correct serving size after surgery. One person's idea of a small portion may be very different than the next person's. This is why it is important to use standardized measurements (1 cup, ½ cup, etc.) with use of measuring tools:

- Measuring cups
- Measuring spoons
- Food scale

In this nutrition guide, you will see the following abbreviations for measurements:

- oz = ounce
- tbsp = tablespoon
- tsp = teaspoon

Sometimes portions of food are listed in ounces (measured using a scale), tablespoons (measured using measuring spoons), or cups (measured using measuring cups). These units of measurement can be easily converted using the guide below:

- 1 ounce = 2 tablespoons = 1/8 cup
- 2 ounces = 4 tablespoons = ¼ cup
- 4 ounces = 8 tablespoons = ½ cup
- 8 ounces = 16 tablespoons = 1 cup

This will allow you and the dietitian to know exactly how much you are eating after surgery to ensure you are not eating too much and stretching your pouch.

Portion Size Chart

If you don't have measuring tools or are not at home while eating, the guide below will help you estimate a healthy portion size using common household items:

Food	Healthy Portion	Household Item Comparison
Meat*	3 ounces	A deck of cards
	2 ounces	2/3 of a deck of cards
	1 ounce	1/3 of a deck of cards
Cheese	1 ounce	4 stacked dice
Baked potato or sweet potato	6 ounces/1 medium	Computer mouse
Nuts or seeds	1 ounce	Small handful
Starches (pasta, rice, potato, sweet potato, corn, peas, oats), beans, lentils, cottage cheese, fruit	½ cup or 4 ounces	Tennis ball
Milk, yogurt, cereal, soup	1 cup	Baseball
Peanut butter, light margarine or light mayo	1 tablespoon	Ping pong ball
Salad dressing, hummus	2 tablespoons	Golf ball
Oil	1 teaspoon	Thumb nail

* After surgery, a healthy portion of meat will depend on individual tolerance & diet stage progression.

Protein



What is protein?

Protein is a nutrient found in a variety of foods that is made up of building blocks known as amino acids. Amino acids are needed to create new proteins in the body. The body is unable to make about half of the amino acids that we need, so we must get them from food.

Why is protein important?

Protein in the body is found in cells, muscles, organs, hair, and nails. When the diet is low in protein, the body breaks down muscles and organs to use as its protein source. This causes muscle loss or wasting. A diet too low in protein may impair healing after surgery, increase risk for infection, and alter digestion and absorption of other nutrients.

Where is protein found?

Protein is found mostly in animal-based foods and some in plant-based foods. Protein-rich animal-based foods include chicken, turkey, fish, beef, yogurt, eggs, cheese, milk etc. These are a

high quality protein source because they offer all required amino acids and keep you fuller for longer. Animal-based sources of protein are also naturally higher in fat, so it is important to choose lean or low-fat versions whenever possible.

Protein-rich plant-based foods include soy, legumes (dry beans and peas), whole grains, nuts, and seeds. Some vegetables may also provide small amounts of protein in comparison to other sources. Many of these protein-rich plant-based foods are high in vitamins and minerals, and are usually low in calories and fat. Protein supplements (powders, shakes, bars) provide concentrated protein taken from various animal-based sources (i.e. whey, which comes from milk) or plant-based sources (soy). Protein supplements are usually high in protein and low in calories. For this reason, they can be used as a meal replacement before and after surgery to help lose weight while maintaining muscle mass. Liquid protein shakes are gentle on the stomach and easy to digest and can help you reach your protein goals post-operatively.

Counting Protein

How much protein do I need?

Most people require 60-80 grams daily after surgery. Your dietitian will tell you if you need more or less than this.

Counting your daily protein intake can assure you are meeting your goal of 60-80 grams per day. We recommend you count your protein intake daily for at least one month after surgery.

3 Easy Steps to Counting Protein:

1. Check the Nutrition Facts label!
2. If there's no Nutrition Facts label, use the guide below: (Avoid using Google!)
3. Record protein intake for each food in journal.

Nutrition Facts	
Serving Size 3 oz. (85g)	
Servings Per Container 2	
Amount Per Serving	
Calories	200
Calories from Fat 120	
% Daily Value*	
Total Fat	15g 20 %
Saturated Fat	5g 28 %
Trans Fat	3g
Cholesterol	30mg 10 %
Sodium	650mg 28 %
Total Carbohydrate	30g 10 %
Dietary Fiber	0g 0 %
Sugars	5g
Protein	5g
Vitamin A	5%
Calcium	15%
Vitamin C	2%
Iron	5%



1 ounce (oz) of any cooked meat = 7 grams



8 oz milk = 8 grams



1 egg = 6 grams



1 egg white = 3 grams



1 oz, ¼ cup shredded, or 1 slice cheese = 7 grams



Single serve (5.3 oz) Greek yogurt cup = 12 grams



½ cup cottage cheese = 14 grams



½ cup cooked beans = 7 grams



¼ cup any nut or seed = 7 grams



1 tablespoon nut butter = 4 grams

Protein Supplements

Immediately after surgery, your goal for protein intake will be **60-80 grams per day**. Meeting this goal will help with:

- Healing process
- Promote weight loss
- Prevent hair loss
- Preserve lean body mass (muscle)

Since protein shakes are prepared in a liquid drink, this makes it easy for the body to digest to help you reach your protein goal. Protein shakes will be your primary source of protein during stage 3 until you are able to tolerate more protein-rich foods in stage 4. **You will be required to purchase and begin using protein supplements as you prepare for surgery.** You may purchase them in a powder or a ready-to-drink/premixed form.

Powder protein supplements should be mixed with 8 ounces of water, skim milk, 1% milk, or unsweetened non-dairy milk (i.e. almond, cashew, soy, etc.). They can be mixed using a blender or protein shaker bottle.

It is important to read labels to choose the safest supplement for surgery. For example, choosing a

Nutrition Facts			
Serving Size 2 Scoops (84g)			
Servings Per Container About 21			
Amount Per Serving		Calories from Fat 10	
Calories 210			
% Daily Value*		% Daily Value*	
Total Fat 1g	2%	Potassium 900mg	27%
Saturated Fat 0.5g	1%	Total Carbohydrate 0g	0%
Trans Fat 0g	0%	Dietary Fiber 0g	0%
Cholesterol 20mg	4%	Sugar 0g	0%
Sodium 400mg	20%	Protein 50g	100%

Your supplement should contain (per serving):

- 200 calories or less
- 20 grams of protein or more
- No more than 10 grams of sugar
- No more than 10 grams of fat

protein supplement too high in sugar could cause dumping syndrome. Choosing a supplement too high in calories could lead to weight gain.

Choose/prioritize protein supplements that have **whey protein isolate**, soy protein isolate, or egg white protein listed as the first ingredient. They also contribute comparable protein for less calories.

Protein bars may be used to increase protein intake once you begin the stage 5 diet. Check the nutrition facts label for sugar alcohols. If present, it will be listed below sugar as either: sugar alcohol, mannitol, sorbitol, maltitol, xylitol, lactitol, or erythritol. These may cause bloating, gas, and/or diarrhea in excess. Aim for less than 10 grams per bar.

Ready-to-drink shakes:

- Premier Protein
- Ensure Max Protein
- Fairlife Core Power
- Fairlife Nutrition Plan
- Pure Protein
- Orgain Grass-Fed Protein Shake
- Equate High Performance Shake
- Quest Protein Shake

Protein powders:

- Unjury
- Isopure Protein Powder
- Quest Protein Powder
- Equate
- Body Fortress
- ISO100 Hydrolyzed Protein Powder
- ON Gold Standard
- Bariatric Fusion Protein Powder

Protein Shake Recipes

Ways to Spice Up Your Shakes

- ¼ to ½ cup fruit
- 1 tsp vanilla or other flavor extracts
- 1-2 tbsp sugar free coffee flavor syrups
- 1 tbsp peanut or any nut butter
- 1-2 tbsp powdered peanut butter
- 8 oz decaf brewed cold coffee or chai tea
- 1-2 tsp decaffeinated instant coffee
- 1-2 tsp unsweetened baking cocoa powder
- 1 tbsp sugar & fat free instant pudding mix
- 1-2 tsp cinnamon, pumpkin pie spice, etc.
- ¼ cup light or Greek yogurt or Kefir
- Drink them hot, like hot chocolate! Do not heat above 140°F to avoid clumping.
- Pour into popsicle molds and freeze
- 1-2 tbsp sugar free drink mixes with vanilla or unflavored protein powder

Directions: For each recipe below, add all ingredients to blender, and blend until smooth. These can be used before surgery and after surgery only when advanced to stage 4 diet.

Wild Berry Boost

- 1 scoop vanilla protein powder
- ½ cup frozen mixed berries
- 8 ounces skim or 1% milk
- 2-3 ice cubes

Mocha or Vanilla Cream Cappuccino

- 1 scoop chocolate or vanilla protein powder
- 8 ounces skim or 1% milk
- 1-2 teaspoons decaffeinated instant coffee



Apple Cinnamon

- 1 scoop vanilla protein powder
- ½ cup unsweetened applesauce
- 8 ounces skim or 1% milk
- ½ teaspoon cinnamon

Pumpkin Pie Shake

- 1 scoop vanilla protein powder
- 2-4 tablespoon canned pumpkin puree
- ½ teaspoon pumpkin pie spice
- 8 ounces skim or 1% milk
- ¼ cup low-fat light vanilla yogurt
- 2-3 ice cubes

High Protein Tropical Shake

- 1 packet of powdered Vanilla “No Sugar Added” Carnation Instant Breakfast
- 1 scoop vanilla whey protein powder
- 8 ounces low-fat milk
- ½ cup sliced banana/ papaya/mango
- ¼ teaspoon coconut extract

Creamy Orange Shake

- 1 scoop vanilla protein powder
- 1-3 tsp sugar-free orange powder drink mix
- 8 ounces skim or 1% milk

“The Hulk”

- 1 scoop vanilla protein powder
- 1-2 tablespoons sugar free, fat free instant pistachio pudding mix
- 8 ounces skim or 1% milk
- 2-3 ice cubes

Peppermint Patty

- 1 scoop chocolate protein powder
- 8 ounces skim or 1% milk
- ½ teaspoon peppermint extract
- 2-3 ice cubes

Cinnamon Roll Protein Shake Recipe

- 1 scoop vanilla protein powder
- 1-2 tablespoons sugar free, fat free instant vanilla pudding mix
- ¼ teaspoon cinnamon
- 8 ounces skim or 1% milk
- 2-3 ice cubes

Peanut Butter Banana Chocolate Shake

- 1 scoop chocolate protein powder
- ½ medium frozen banana
- 2 tablespoons powdered peanut butter
- 8 ounces skim or 1% milk
- Dash of cinnamon
- 2-3 ice cubes



Pre-Surgery Healthy Meal Plan

Use this healthy meal plan as a guide to prepare for life after surgery and to help achieve or maintain your pre-op weight goal.

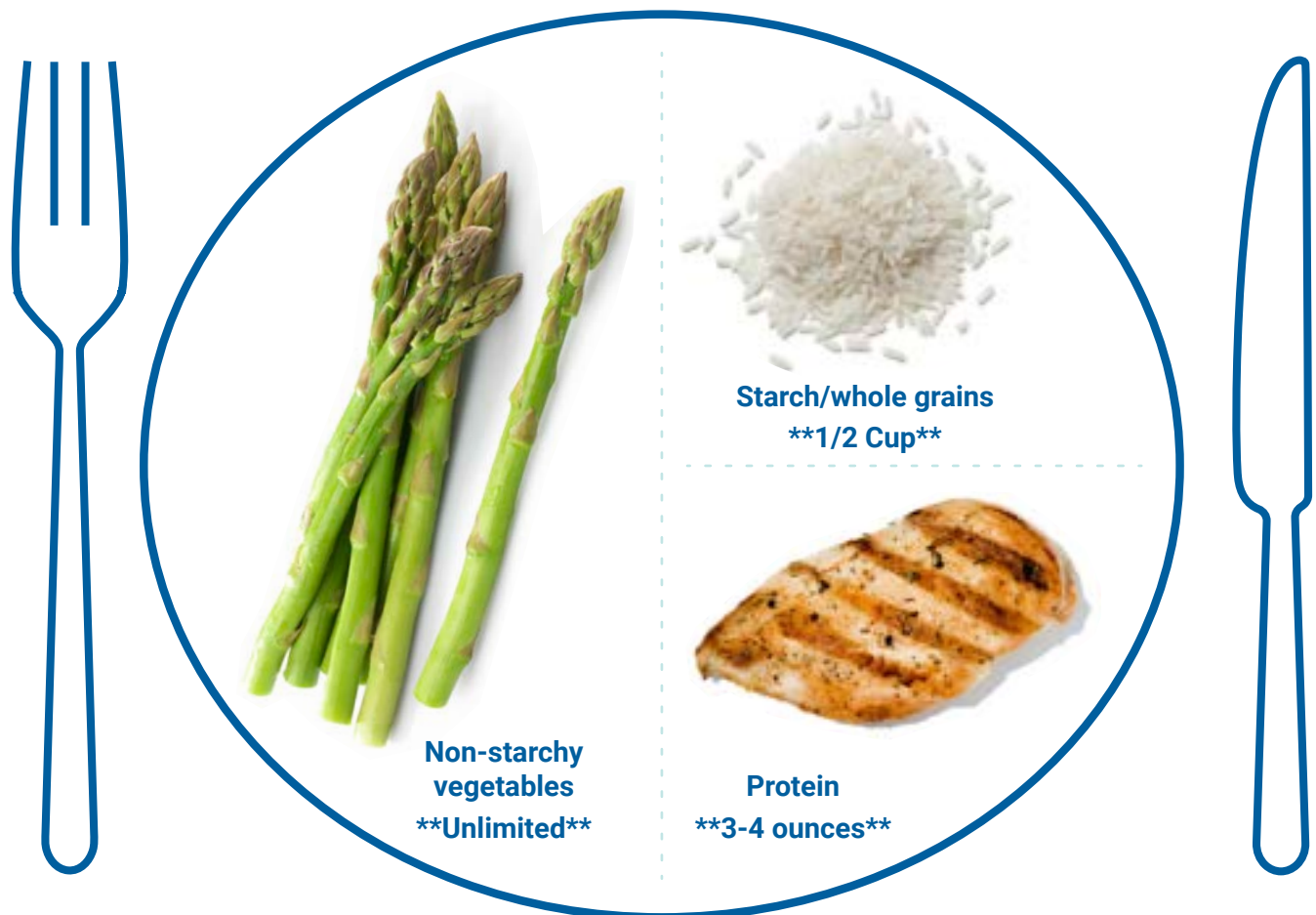
Breakfast	Protein shake prepared with • 8 oz skim milk • 1 serving protein powder • ½ cup fruit	
Morning snack	Choose 1 snack from healthy snacks list on the next page.	
Lunch	Select one choice from each group:	
	Protein:	• 3-4 ounces lean chicken, turkey, fish, shellfish, beef, or pork
	Starch:	• 2 slices of light (60 calories or less/slice) whole grain bread • ½ cup whole grain pasta • ½ cup brown rice or quinoa • ½ cup beans or lentils • ½ cup starchy vegetables (potato, sweet potato, corn, peas)
	Non-starchy vegetables:	• 1 cup or more, refer to list on next page
	Healthy fat:	• 1 slice avocado • 2 tbsp light or reduced fat dressing • 1 tbsp light mayonnaise • 1 tsp oil or light margarine
Afternoon snack	Choose 1 snack from healthy snacks list on the next page.	
Dinner	Select one choice from each group:	
	Protein:	• 3-4 ounces lean chicken, turkey, fish, beef, or pork
	Starch:	• 2 slices of light (60 calories or less/slice) whole grain bread • ½ large pita or 1 small pita • ½ cup whole grain pasta • ½ cup brown rice or quinoa • ½ cup beans or lentils • ½ cup starchy vegetables (potato, sweet potato, corn, peas)
	Non-starchy vegetables:	• 1 cup or more, refer to list on next page
	Healthy fat:	• 1 slice avocado • 2 tbsp light or reduced fat dressing • 1 tbsp light mayonnaise • 1 tsp oil or light margarine

Example Menu:

Breakfast	Protein shake made with 1 scoop vanilla whey protein powder, 8 ounces skim milk, ½ cup frozen strawberries
Morning snack	1 apple with 1 tablespoon peanut butter
Lunch	1 can of tuna in water mixed with 2 tablespoons light mayonnaise on a small pita bread with lettuce and tomato with baby carrots on the side
Afternoon snack	1 Greek yogurt
Dinner	3 ounces grilled chicken with ½ cup brown rice, 1 cup steamed broccoli and 1 slice avocado

High Protein Snacks		
Dairy: Milk & Yogurt Sugar: 10 grams or less Total Fat: 5 grams or less	<ul style="list-style-type: none"> • 1 5.3 oz Greek yogurt (i.e. Dannon Light & Fit, Dannon Oikos Triple Zero, Chobani Less Sugar, Two Good, Siggis, etc.) 	<ul style="list-style-type: none"> • 1 6 oz light yogurt • Drinkable yogurt (Dannon Light & Fit, Dannon Oikos Triple Zero)
Cheese Total Fat: 6 grams or less	<ul style="list-style-type: none"> • 1 ounce low fat, light, 2%, or part-skim cheese • 1 string cheese • 1-2 Laughing Cow cheese wedges • 1 Babybel cheese • 1 Cottage Cheese Single Serve Cup 	<ul style="list-style-type: none"> • ¼ cup part-skim ricotta cheese • ½ cup fat free or low fat cottage cheese • 1 Cabot Sharp Light Cheddar snack bar
Bars & Cereals Sugar: Less than 10 grams Dietary Fiber: 3 grams or more Protein: 6 grams or more	<ul style="list-style-type: none"> • ¾ cup Special K Protein Cereal • ¾ cup Kashi Go Cereal • 1 Kashi granola bar • 1 Fiber One Protein bar 	<ul style="list-style-type: none"> • 1 Nature Valley Protein bar • 1 Think Protein & Fiber bar • 1 Built Bar
Frozen Desserts Sugar: 15 grams or less Sugar Alcohols: 6 grams or less Total Fat: 5 grams or less	<ul style="list-style-type: none"> • 1 Yasso Frozen Greek Yogurt Bars • 1 Enlightened Ice Cream Bar • ½ cup Enlightened Light Ice Cream (avoid keto flavor) 	<ul style="list-style-type: none"> • ½ cup Halo Top Light Ice Cream • ½ cup Breyers Delights Low Fat Ice Cream • 1 Clio Yogurt Bar
Meat/Bean/Proteins	<ul style="list-style-type: none"> • 1 boiled egg • 1 100 calorie pack nuts • 2 tbsp of any nut or seed • 1 envelope of tuna, flavored or plain • 1 individual snack cup hummus or 2 tbsp hummus 	<ul style="list-style-type: none"> • ½ Jif Peanut Butter To-Go • 1 tbsp peanut butter or other nut butter • ¼ cup roasted chickpea or edamame snacks • 2 slices lean deli turkey or ham
Low Protein, High Fiber Snacks		
Your intake of these may be more limited after surgery since eating protein will be your priority		
Fruits	<ul style="list-style-type: none"> • 1 piece of fruit (tennis ball-sized) • ½ cup sliced fruit • 1 4 oz fruit cup 	<ul style="list-style-type: none"> • 1 cup berries (any type) • 1 cup diced melon (any type) • 2 tbsp dried fruit
Vegetables	<ul style="list-style-type: none"> • Baby carrots • Celery sticks • Cherry or grape tomatoes 	<ul style="list-style-type: none"> • Sugar snap peas • Pepper strips • Sliced cucumber
Grains/Starches	<ul style="list-style-type: none"> • 16 Wheat Thins • 5 Triscuits • 20 mini pretzels 	<ul style="list-style-type: none"> • 2 rice cakes • 2 Wasa crackers • 3 cups light popcorn

Pre-Surgery Bariatric Plate



Non-starchy vegetables

- Salad greens
- Tomato
- Broccoli
- Cauliflower
- Eggplant
- Zucchini
- Celery
- Cabbage
- Brussels sprouts
- Green beans
- Onions
- Peppers

- Asparagus
- Mushrooms
- Beets
- Artichoke
- Sugar snap peas
- Kale and other greens
- Carrots

Starch/ whole grains

- Bread (whole grain)
- Brown rice quinoa
- Whole grain pasta
- Starchy vegetables (potato, corn, peas)

- Green banana
- Plantain

Protein

- Chicken, turkey
- Fish, shellfish
- Lean beef or pork
- Beans
- Eggs
- Egg beaters
- Egg whites
- Cheese
- Nuts or seeds
- Nut butter

Other helpful tips:

- Eat your protein first!
- Meals should be eaten every 5-6 hours
- Choose one snack 2-3 hours after a meal
- Use small amounts of oil, dressings, etc.
- Chew foods well, 20-30 times per bite
- Do not drink while you eat. Wait 30 minutes after a meal to drink
- Take vitamins 15 minutes before a meal

Post-Operative Diet

Following surgery, your digestive system will require 6-8 weeks to heal. To help with the healing process, you will progress through 5 diet stages.

Never advance your diet without discussing it with a member of the bariatric team due to the possibility of surgical complications.

Stage 1: Water

- **Initiation:** The day of surgery, as directed by the surgeon.
- **Duration:** a few hours
- **Intake:** 1 ounce of water per hour, during the first hour; 4 ounces of water per hour (1 ounce every 15 minutes), after the first hour
- **Goals:** Hydration
- **Allowed Food/Fluids:** Water or ice only
- **Instructions:** You will be given a 1 ounce medicine cup of water to sip slowly. Record your intake of water on your fluid log, which will be provided by your nurse.

Stage 2: Clear Liquids

- **Initiation:** The evening of surgery, as directed by the surgeon
- **Duration:** 1 day or less
- **Intake:** 4 ounces of clear liquids per hour (1 ounce or more every 15 minutes)
- **Goals:** Hydration
- **Allowed Food/Fluids:** Ice, water, sugar free decaffeinated beverages like Crystal Light, sugar free Jell-O, sugar free popsicles, vegetable/beef/chicken broth
- **Instructions:** All liquids need to be sugar free. Record your intake of clear liquids on your fluid log, which will be provided by your nurse.



Stage 3: Full Liquids

- **Initiation:** 1 day after surgery, as directed by the surgeon
- **Duration:** 2 weeks
- **Intake – Week One (1-7 days):**
 - 3 protein shakes (8-11 ounces each)
 - 1 snack (1/2 cup or 4 ounces)
 - 64 ounces or more of fluid
- **Intake – Week Two (8-14 days):**
 - 2 protein shakes (8-11 ounces each)
 - 2 snacks (1/2 cup or 4 ounces)
 - 64 ounces or more of fluid

Shopping List of Allowed Foods:

Check nutrition labels for all items listed below to ensure they contain no more than 10 grams of total sugar, and no more than 10 grams of total fat per serving.

	Week One (1-7 days)	Week Two (8-14 days)
Protein Supplement	<ul style="list-style-type: none"> • Ready-to-drink (bottled) protein shake • Protein powder mixed with 8-11 ounces of water, high protein milk, or unsweetened non-dairy milk • Protein water (<i>use no more than 1 time per day</i>) <p>Starting week 2, you may add ¼ cup of pureed fruit or vegetable without skins or seeds to your protein supplement.</p>	
Snack	<ul style="list-style-type: none"> • Yogurt • Pudding 	<ul style="list-style-type: none"> • Yogurt • Pudding • Cottage cheese • Ricotta cheese • Pureed soup • Pureed fruit or vegetable without skins or seeds
Fluid	<p>Choose only beverages that are calorie free (5 or less), caffeine free, sugar free, and non-carbonated.</p> <p>Examples: water, Crystal Light, Mio flavor drops, Gatorade Zero, Powerade Zero, Propel, Fruit 20, Ocean Spray Diet Juice, sugar free popsicles, sugar free gelatin, decaf or herbal tea, decaf coffee, etc.</p>	

Instructions:

Meal Timing and Mindful Eating Tips:

- **Give yourself 30 to 60 minutes to drink each protein supplement and snack.**
- If you have not finished your protein supplement or snack within 60 minutes, stop.
- Take small bites of snacks. Wait at least a minute before taking your next bite.
- You will receive **Ensure Max Protein** as your protein shake while in the hospital.
- Do not drink while you eat and do not drink within 30 minutes after consuming a protein shake or snack.
- Drink a minimum of 12 ounces of clear liquids between protein shakes and snacks.
- Avoid carbonated and caffeinated beverages during this stage since they can interfere with your healing.
- Temporary lactose intolerance can develop during this time. If you experience bloating, gas, stomach cramps, or diarrhea after eating milk products or protein shakes, you may benefit from switching to lactose free skim milk and lactose free protein supplements.
- If you are too full from the protein shakes in the first few days after surgery, it is ok to skip your snack.

Meal Preparation Tips

- To prepare protein supplements: Measure 8 to 11 ounces of suggested fluids (listed above) with 1 serving of protein powder and mix using a protein shaker bottle or blender. Mix with a spoon instead of the shaker bottle or blender to reduce frothiness/foaminess of shakes (this can sometimes be bothersome after surgery).
- If protein shakes taste too sweet, try mixing with water instead of milk or switch to an unflavored or savory flavored protein powder.
- If the texture of your shakes or snack seem too thick, try adding a splash of water or milk to thin it out.



- Tolerance of foods and beverages can vary. Taste changes may occur. For example some may tolerate ice-cold beverages better while others prefer liquids at room temperature.
- It is ok to add ground spices (i.e. cinnamon, nutmeg, etc.), dried or powdered herbs, flavor extracts, sugar free fat free pudding mix, unsweetened cocoa powder, powdered peanut butter, Swiss Miss Reduced Calorie Hot Chocolate mix, or sugar free syrups (i.e. Torani, Skinny Syrups, etc.) to protein shakes or snacks.
- Starting **week 2**, you may blend 1/4 cup of fruits or vegetables **without** skins or seeds into your protein shake.
- Starting **week 2**, you may mix 1/4 cup of pureed fruits or vegetables **without** skins or seeds with 1/4 cup of any stage 3 snack.

Bariatric Stage 3 Diet Guide

Stage 3 diet starts the day after surgery in the hospital and continues for 2 weeks until your first dietitian visit. This diet consists of protein shakes, high protein soft snacks, and fluids to allow for healing.

Do not advance your diet until you meet with your dietitian since this can result in **serious surgical complications**.

Week 1 (1-7 days):

- 3 protein shakes (8-11 ounces each)
- 1 snack (½ cup or 4 ounces)
- 64 ounces or more of fluid

Week 2 (8-14 days):

- 2 protein shakes (8-11 ounces each)
- 2 snacks (½ cup or 4 ounces)
- 64 ounces or more of fluid

Goals:

- Consume a minimum of 60-80 grams of protein per day
- Drink a minimum of 64 ounces of fluid per day
- Do not take your vitamins during this stage
- Separate fluids from your protein shakes and snacks by 30 minutes before and after

Stage 3 Diet: Protein Shake Guide



Use this guide when selecting your protein shakes on the stage 3 diet.

Nutrition:

- 200 calories or less
- 20 grams or more of protein

- 10 grams or less of total sugar
- 10 grams or less of total fat

Tips:

- Take 30 to 60 minutes to drink each protein shake
- Each protein shake should be 8 to 11 ounces
- Avoid drinking within 30 minutes of drinking your protein shake

Ready-to-Drink Protein Shakes

Portion: 8 to 11 ounces

Ready-to-drink protein shakes are often better tolerated since they do not “foam” like protein powder does.

Whey/Milk Based Recommended brands:

- Premier Protein Shake
- Equate High Performance Protein Shake
- Ensure Max Protein Shake
- Quest Protein Shake

- Pure Protein Shake
- Orgain Clean Protein Shake
- Muscle Milk Protein Shake
- GNC Lean Shake
- Atkins Plus Protein Shake

Low Lactose Recommended Brands:

- Fairlife Nutrition Plan Protein Shake
- Core Power Elite Protein Shake
- Core Power Protein Shake

Plant-based Recommended Brands:

- Orgain Plant Protein Shake
- OYWN Protein Shake
- OWYN Elite Protein Shake

Tip: Avoid coffee flavored shakes since they contain caffeine.



Homemade Protein Shakes

Portion: 8 to 11 ounces

Mixing Instructions:

- **Week 1:** Use a blender or protein shaker bottle to mix protein powder with 8 to 11 ounces of preferred fluid
- **Week 2:** May begin blending in 1/4 cup skinless seedless fruit or vegetable

Recommended Fluids (to mix powder with)

Choose 8 to 11 ounces of any fluids listed below

High protein low sugar milk

- Fairlife Fat-Free, 1%, or 2% Milk
- Stonyfield Organic Protein Fat-Free Milk
- Simply Smart Fat-Free Milk
- Silk Almond and Cashew Protein Milk
- Silk Organic Unsweetened Soy Milk
- Orgain Organic Unsweetened Almond Milk with Protein

Other

- Water
- Decaf Coffee
- Ocean Spray Diet Juice (or appropriate alternative)
- Almond Breeze Unsweetened Almond Milk

Tip: To reduce foam, leave the shake in the refrigerator for 30 minutes after mixing to let it “settle”. During week 1 and beyond, may add flavor extracts, sugar free syrups, or spices for added flavor.

Recommended Protein Powders

Whey Protein Isolate

Isolate is the highest quality protein powder since it is lowest in calories, highest in protein, mixes well, and is lactose free.

Recommended brands:

- Body Fortress Whey Protein Isolate
- Ghost Protein
- Iso100 Protein



- Quest Protein
- Isopure Zero Carb Protein
- Gold Standard Whey Protein Isolate
- Unjury Protein (available at WDH pharmacy)
- Bariatric Fusion Protein

Whey Protein Concentrate

Concentrate is slightly higher in calories than isolate, but is affordable and high quality.

Recommended brands:

- Body Fortress Whey Protein Concentrate
- Body Fortress
- Equate Whey Protein
- Premier Protein
- Pure Protein Powder
- Orgain Clean Whey Protein Powder

- Gold Standard Whey Protein Powder
- GNC Lean Shake Protein Powder

Plant Based Protein Powder

These are the preferred substitutes for those who do not use whey protein, but are higher in calories, and lower in protein.

Recommended brands:

- Jay Robb Egg White Protein
- Designer Egg Protein
- Bulk Supplements Egg White Protein
- Nutricost Soy Protein Isolate
- Orgain Organic Protein Plant-Based Protein
- Plant Based Vega Protein Powder
- OWYN Plant-Based Protein Powder

Unflavored Whey Protein

Mix these into pudding and soups, or mix as a protein shake with liquid of choice

Recommended brands:

- Unjury Unflavored Protein Powder (available at WDH pharmacy)
- Bob's Red Mill Whey Protein Powder
- Isopure Unflavored Protein Powder
- Cabot Unflavored Protein Powder

Savory Whey Protein

Recommended brands:

- Unjury Chicken Soup, French Onion Soup, or Beef Broth Flavored Protein Powder (available at WDH Pharmacy)
- Bariatric Fusion Chicken Soup Protein Powder

If using protein soup mixes (below), remove any pieces of vegetables.

- PROTI-VLC High Protein Soups (Request QR code from your Dietitian if interested)

Mixing Tip: When mixing protein powder with hot liquid, use a meat thermometer to ensure the liquid is not above 140°F.

Clear Protein Water

Portion: 8 to 16 ounces

Ready-to-Drink

Can be used **in place of** a protein shake up to once daily, or in addition to a protein shake as fluid up to once daily

Recommended brands:

- Protein20 (avoid caffeine-containing flavors)
- Premier Protein Clear Protein Drink
- Gatorade Zero with Protein
- Ascent Recovery Water

Powders

Mix 8 to 16 ounces of water with 1 serving powder to make your own protein water.

Recommended brands:

- Syntrax Nectar Protein Powder
- Isopure Zero Carb Alpine Punch Protein Powder
- Isopure Infusions Protein Powder
- Unjury Root Beer, Moonbeam Mist, and Cherry Cola Flavored Protein Powder (available at WDH Pharmacy)

Tip: Dilute with water if too sweet or freeze into popsicle molds. Avoid those that contain caffeine.



Stage 3 Snack Guide

Use this guide when selecting a snack on the stage 3 diet.

These are the **only approved snacks** on stage 3 diet for your safety to allow for healing.

Week 1 (1-7 days):

- Yogurt
- Pudding

Week 2 (8-14 days):

- Yogurt
- Pudding
- Cottage Cheese
- Ricotta Cheese
- Pureed Soup
- Pureed Fruit or Vegetable
(No skin, no seeds, ¼ to ½ cup)

Tips:

- Give yourself 30 to 60 minutes to eat your snack
- Measure each snack to be 1/2 cup (or 4 ounce) portion
- Avoid drinking within 30 minutes of eating your snack
- If you are too full from your fluid and protein shakes, it is ok to skip the snack or substitute with a protein shake

Yogurt - Week 1 and Beyond

Portion: ½ cup (4 ounces)

Greek Yogurt

Greek yogurt (any flavor) is best since it is higher in protein and lower in sugar compared to regular yogurt.

Recommended brands:

- Oikos Triple Zero Greek Yogurt
- Oikos Pro Greek Yogurt

- Light & Fit Greek Yogurt
- Two Good Greek Yogurt
- Chobani Zero Sugar Greek Yogurt
- Chobani Less Sugar Greek Yogurt (no artificial sweeteners)
- Ratio Protein Yogurt
- Fage Greek Yogurt (no artificial sweeteners)
- Siggis Skyr Yogurt (no artificial sweeteners)
- Icelandic Provisions Skyr Yogurt (no artificial sweeteners)

Drinkable Yogurt

Drinkable yogurt is a great alternative for those who dislike Greek yogurt!

Recommended brands:

- Pillars Drinkable Yogurt
- Light & Fit Protein Drinkable Yogurt
- Plain Kefir: Unsweetened with 1% Milkfat (no artificial sweeteners)*

*Plain only

Lactose Free/Plant-Based

Caution – many plant-based yogurts are low in protein and high in sugar.

Recommended brands:

- Fage Best Self Greek Yogurt (no artificial sweeteners)
- Siggis Plant-Based Coconut Blend Yogurt (no artificial sweeteners)
- Green Valley Low-Fat Yogurt (no artificial sweeteners)
- Siggis Plant-Based Probiotic Coconut Drink (no artificial sweeteners)

pudding - Week 1 and Beyond

Portion: ½ cup (4 ounces)

Check the “Nutrition Facts” (per serving):

- 10 grams or less of total sugar
- 10 grams or less of total fat

pudding Mix

Choose any flavor of instant pudding mix labeled “sugar free”

Recommended brands:

- Sugar-Free Jell-O Pudding Mix
- Royal Instant Sugar-Free Pudding Mix

Mixing Instructions: Prepare pudding mix with fat free Fairlife milk (8 grams protein per ½ cup pudding) or skim or 1% milk (4 grams protein per ½ cup pudding).

pudding Cups

Most pudding cups contain sugar alcohols (a laxative!) and should be avoided if more than 5 grams per serving.

Recommended brands:

- Jell-O Sugar-Free Pudding Cup



- KozyShack No Sugar Added Pudding Cup (chocolate flavor only)

Mixing Instructions: Stir in ½ scoop of any flavor protein powder until well combined since these have very little protein on their own.

Cottage Cheese & Ricotta Cheese - Week 2 & Beyond

Portion: ½ cup (4 ounces)

Check the “Nutrition Facts” (per serving):

- 10 grams or less of total sugar
- 10 grams or less of total fat

Cottage Cheese (low fat)

Recommended brands:

- Hood Plain Cottage Cheese
- Hood Chive Cottage Cheese
- Hood Whipped Cottage Cheese
- Breakstone’s Cottage Cheese
- Lactaid Cottage Cheese
- Good Culture Cottage Cheese

Tip: Add ranch flavored seasoning or other dried/powdered seasoning blends for added flavor!

Note: Good Culture “3 gram sugar” is the only acceptable brand of fruited cottage cheese.

Ricotta Cheese

Select only brands labeled as “part-skim”, “low fat”, “light”, “2%”, or “1%”.

Recommended brands:

- Galbani Part-Skim Ricotta Cheese
- Dragone Part-Skim Ricotta Cheese
- Sargento Light Ricotta Cheese
- Frigo Part-Skim Ricotta Cheese

Tip: Make it sweet by adding a splash of vanilla or other flavor extract and your favorite zero calorie sweetener, or make it savory with added garlic powder, Italian seasonings, and warm in the microwave.

Pureed Soup - Week 2 & Beyond

Portion: ½ cup (4 ounces)

Check the “Nutrition Facts” (per serving):

- 10 grams or less of total sugar
- 10 grams or less of total fat

Condensed Soup

Choose any flavor “cream of” condensed soup, but strain out any pieces of vegetables or meat

Recommended brands:

- Campbell’s 98% Fat Free Cream of Chicken Soup
- Great Value Healthy Cream of Mushroom Condensed Soup
- Pacific Foods Organic Cream of Mushroom Condensed Soup
- Pacific Foods Cream of Chicken Condensed Soup

Mixing Instructions: Prepare ¼ cup soup with ¼ cup fat free Fairlife milk (4 grams protein per ½ cup soup) or skim or 1% milk (2 grams protein per ½ cup soup).

Pureed Vegetable Soup

Choose any pureed vegetable soups that meet the nutrition guidelines

Recommended brands:

- Amy’s Low-Fat Butternut Squash Soup
- Imagine Tomato Creamy Soup
- Imagine Butternut Squash Creamy Soup
- Pacific Foods Creamy Butternut Squash Soup

Mixing Instructions: Prepare soups with ½ to 1 scoop of unflavored protein powder (Use a meat thermometer to ensure the soup is not warmer than 140°F before adding protein powder to prevent clumping)

Pureed Fruits & Vegetables - Week 2 & Beyond

Portion: ¼ to ½ cup (2-4 ounces)

Check the “Nutrition Facts” (per serving):

- 10 grams or less of total sugar
- 10 grams or less of total fat

Pureed Fruits

Choose only fruits without skin or seeds, pureed or mashed

Recommended brands:

- Mott’s No Sugar Added Applesauce
- Happy Baby Pureed Pears
- Beech-Nut Pureed Peaches
- Gerber Pureed Banana
- Mashed Banana

Tip: Limiting portion to ¼ cup will ensure sugar content is no more than 10 grams. Try mixing ¼ cup into ¼ cup cottage cheese, ricotta cheese, yogurt, or other stage 3 snacks!

Pureed Vegetables

Choose only vegetables without skin or seeds, pureed or mashed.

Recommended brands:

- Mashed Cauliflower
- Mashed Avocado
- Tomato Sauce
- Pureed or Mashed Butternut Squash
- Beech-Nut Fruit and Vegetable Pouch
- Happy Baby Pureed Carrots

Tip: If preparing yourself, puree in a food processor until smooth, or mash completely without chunks.

Stage 3 Beverage Guide

Use this guide when selecting beverages on the stage 3 diet.



Selection: Choose only beverages that are:

- Calorie free (5 or less)
- Sugar free
- Caffeine free
- Non-carbonated

Examples:

- Water
- Crystal Light Packets (caffeine free)
- True Citrus Packets
- Fruit20
- Gatorade Zero
- Powerade Zero
- Propel
- Vitamin Water Zero
- Body Armour Lyte
- Ocean Spray Diet Juice

- Minute Maid Zero Sugar
- Sugar-Free Jell-O
- Mio Drops (caffeine free)
- Sugar-Free Popsicles (should not contain sugar alcohols)
- Herbal Tea

Tips:

- Track your intake! Aim for 64 ounces per day (minimum)
- Your protein shakes count as fluid, but aim for half of your fluids to be from clear liquids
- Avoid drinking within 30 minutes of your protein shake or snack
- Varying temperature of liquids sometimes improves tolerance
- Remember that jello & popsicles are a clear liquid and not a snack!

Shopping List

Protein Shakes:

- Ready-to-drink protein shakes (variety of brands, flavors)
- Whey protein isolate powder (variety of brands/flavors)*
- 1-2 sample packets Unjury unflavored protein powder*
- Fat free Fairlife milk
- Protein 20 Water
- 1-2 sample packets Unjury chicken soup protein powder*
- Pillars or Light & Fit drinkable yogurt
- Low fat cottage cheese
- Good Culture 3 Gram Sugar fruited cottage cheese
- Part-skim ricotta cheese
- Campbell's 98% Fat Free Cream Soups (variety of flavors)
- Pacific Foods Butternut Squash Soup

Snacks:

- Kozy Shack Simply Well chocolate pudding cups
- Sugar free fat free pudding mix
- Greek yogurt (variety of brands, flavors)

Beverages:

- Water & other sugar free fluids (variety of brands, flavors)
- Sugar free popsicles
- Sugar free jello
- Broth

Other:

- Blender or food processor
- Protein shaker bottle
- Water bottle (with ability to track ounces)
- Meat thermometer (use when mixing protein powder with hot liquids)*
- Small utensils, bowls and plates
- Measuring cups
- Food scale (digital)
- Popsicle molds
- Food journal
- Flavor extracts, cinnamon



Bariatric Stage 3 Diet – Week 1 Example Menu

Use this simply as a guide. Substitute protein shakes or snacks from those in this guide based on preference.

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Drink 6:30 – 7:30 a.m.	8 oz clear fluids	8 oz clear fluids	8 oz clear fluids	8 oz clear fluids	8 oz clear fluids	8 oz clear fluids	8 oz clear fluids
Protein shake 8:00 – 9:00 a.m.	8-11 oz Ensure Max protein shake	8-11 oz Core Power protein shake	8-11 oz Pure Protein shake with 1 packet Swiss Miss Reduced Calorie Hot Chocolate (warmed)	8-11 oz Fairlife Nutrition Plan protein shake	1 scoop Unjury chocolate protein powder mixed with 8-11 oz unsweetened almond milk	8-11 oz Quest chocolate protein shake (warmed as “hot chocolate”)	1 scoop vanilla Unjury protein powder mixed with 4 oz cold decaf coffee, 4 oz fat free Fairlife milk
Drink 9:30 – 11:30 a.m.	16 oz clear fluids	16 oz clear fluids	16 oz clear fluids	16 oz clear fluids	16 oz clear fluids	16 oz clear fluids	16 oz clear fluids
Protein shake noon – 1:00 p.m.	8-11 oz Ensure Max protein shake	8-11 oz hot water with 1 scoop Unjury chicken soup protein powder	8-11 oz Premier Protein shake	8-11 oz hot water with 1 scoop Unjury French onion soup protein powder	8-11 oz Fairlife Nutrition Plan protein shake with 1 tbsp powdered peanut butter	8-11 oz hot water with 1 packet Proti- VLC Soup Mix (with Hot Base Mix)	8-11 oz Ensure Max protein shake
Drink 1:30 – 2:30 p.m.	8 oz clear fluids	8 oz clear fluids	8 oz clear fluids	8 oz clear fluids	8 oz clear fluids	8 oz clear fluids	8 oz clear fluids
Snack 3:00 – 3:30 p.m.	4 oz Pillars drinkable yogurt	½ cup sugar free pudding (made from mix, prepared with fat free Fairlife milk)	4 oz Light & Fit Protein drinkable yogurt	½ cup Dannon Triple Zero Greek Yogurt	½ cup Kozy Shack Simply Well chocolate pudding with ½ scoop whey protein powder	½ cup Two Good yogurt	½ cup plain Kefir with ½ tsp vanilla extract, 1 packet zero calorie sweetener
Drink 4:00 – 5:30 p.m.	12 oz clear fluids	12 oz clear fluids	12 oz clear fluids	12 oz clear fluids	12 oz clear fluids	12 oz clear fluids	12 oz clear fluids
Protein shake 6:00 – 7:00 p.m.	8-11 oz Premier Protein shake	8-11 oz Pure protein shake	1 scoop Quest protein powder with cinnamon, 8-11 oz fat free Fairlife milk	1 scoop Isopure protein powder mixed with 8-11 oz unsweetened almond milk	8-11 oz Quest protein shake	8-11 oz Premier protein shake	8-11 oz hot water with 1 scoop Unjury chicken soup protein powder
Drink 7:30 – 10:00 p.m.	20 oz clear fluids	20 oz clear fluids	20 oz clear fluids	20 oz clear fluids	20 oz clear fluids	20 oz clear fluids	20 oz clear fluids

Bariatric Stage 3 Diet – Week 2 Example Menu

Use this simply as a guide. Substitute protein shakes or snacks from those in this guide based on preference.

	Day 8	Day 9	Day 10	Day 11	Day 12	Day 13	Day 14
Drink 6:30 – 7:30 a.m.	8 oz clear fluids	8 oz clear fluids	8 oz clear fluids	8 oz clear fluids	8 oz clear fluids	8 oz clear fluids	8 oz clear fluids
Protein shake 8:00 – 9:00 a.m.	8-11 oz chocolate Premier protein shake, ½ tsp mint extract (warmed as “hot chocolate”)	1 scoop Unjury vanilla protein powder, ¼ cup pureed peaches, 8 oz unsweetened coconut milk	8-11 oz Ensure Max protein shake	1 scoop Unjury chocolate protein powder, 1 tbsp PB2, ¼ cup pureed banana, 8 oz fat free Fairlife milk	8-11 oz Fairlife Nutrition Plan protein shake	1 scoop Syntrax nectar strawberry kiwi protein powder, 8-11 oz water	1 scoop Quest caramel protein powder, 4 oz cold decaf coffee, 4 oz fat free Fairlife milk
Drink 9:30 – 11:30 a.m.	16 oz clear fluids	16 oz clear fluids	16 oz clear fluids	16 oz clear fluids	16 oz clear fluids	16 oz clear fluids	16 oz clear fluids
Snack noon – 1:00 p.m.	¼ cup low fat cottage cheese, ¼ cup pureed peaches	½ cup Light & Fit Greek yogurt	¼ cup low fat cream of mushroom soup, ¼ cup fat free Fairlife milk	½ cup part- skim ricotta cheese, 1 drop liquid stevia, ½ tsp vanilla extract	½ cup Imagine tomato soup with ½ scoop unflavored protein powder	½ cup sugar free pudding (made from mix, prepared with fat free Fairlife milk)	½ cup cottage cheese with ¼ tsp ranch seasoning mix
Drink 1:30 – 2:30 p.m.	8 oz clear fluids	8 oz clear fluids	8 oz clear fluids	8 oz clear fluids	8 oz clear fluids	8 oz clear fluids	8 oz clear fluids
Protein Shake 3:00 – 3:30 p.m.	8-11 oz Fairlife Nutrition Plan protein shake	8-11 oz Core Power protein shake	1 scoop Unjury root beer protein powder + 8 oz fat free Fairlife milk	1 scoop Syntrax peach protein powder, 8-11 oz unsweetened almond milk	8-11 oz hot water with 1 packet Proti- VLC Soup Mix (with Hot Base Mix)	8-11 oz hot water with 1 scoop Unjury chicken soup protein powder	8-11 oz Fairlife Nutrition Plan protein shake
Drink 4:00 – 5:30 p.m.	12 oz clear fluids	12 oz clear fluids	12 oz clear fluids	12 oz clear fluids	12 oz clear fluids	12 oz clear fluids	12 oz clear fluids
Protein shake 6:00 – 7:00 p.m.	¼ cup part- skim ricotta cheese, ¼ cup tomato sauce, garlic powder & Italian seasoning (warmed)	½ cup pureed butternut squash with ½ scoop unflavored protein powder	¼ cup vanilla Triple Zero Greek yogurt, ¼ cup unsweetened applesauce	¼ cup cream of chicken soup (prepared with fat free Fairlife milk), ¼ cup pureed carrots	¼ cup mashed avocado, ¼ cup low fat cottage cheese	¼ cup Ratio yogurt with ¼ cup pureed pears	¼ cup mashed cauliflower, ¼ cup Imagine butternut squash soup with added protein powder
Drink 7:30 – 10:00 p.m.	20 oz clear fluids	20 oz clear fluids	20 oz clear fluids	20 oz clear fluids	20 oz clear fluids	20 oz clear fluids	20 oz clear fluids

Stage 4: Pureed/Blended/Ground

- **Initiation:** 3 weeks after surgery
- **Duration:** 3-4 weeks, varies based on individual tolerance
- **Intake:**
 - 3 meals per day (1 meal as a protein supplement)
 - 1 snack per day
 - Drink a minimum of 12 ounces of water or clear liquids between meals
- **Goals:**
 - Meet minimum protein goal of 60-80 grams/day
 - Meet minimum fluid goal of 64 ounces/day
 - Initiate daily vitamin/mineral supplements as advised by your dietitian

Shopping List of Allowed Foods:

Protein Supplements:

- Protein powder
- Ready-to-drink protein shake

Meats/Beans/Alternatives:

- 90% lean ground chicken, turkey or beef
- Baked white fish
- Canned or pouch tuna or chicken in water
- Eggs, egg whites, or egg substitutes
- Low fat, high protein soups without noodles or rice
- Beans, lentils, or split peas
- Fat free refried beans
- Tofu

Dairy:

- Skim or 1% milk (lactose free if needed)
- Light soy milk
- Greek yogurt, nonfat or low fat
- Light or plain yogurt
- Cottage cheese, nonfat or low fat
- Ricotta cheese, nonfat or low fat
- Cheese, part-skim, light, 2%, or fat free
- Sugar free, fat free pudding mix (prepare with skim or 1% milk)

Fruits:

- Applesauce, unsweetened
- Mashed banana
- Diced peaches or pears, drained
- Any pureed fruit without skin

Non-Starchy Vegetables:

- Mashed or riced (cooked) cauliflower, broccoli, or carrots

Starches (limit intake):

- Low sugar instant oats
- Mashed potatoes, sweet potatoes, or winter squash (prepare with skim/1% milk and/or light margarine)

Condiments:

- Fat free gravy
- Light mayonnaise, light salad dressing
- Mustard
- Sugar free BBQ sauce or ketchup
- Spray oil
- Light margarine spread or spray
- Pureed mild salsa
- No sugar added pasta sauce

Instructions

Meal Timing and Mindful Eating Tips:

- Take 30 to 60 minutes to eat meals.
- Space meals 4-5 hours apart. Space snacks 2-3 hours apart from meals.
- If you feel full, STOP.
- If you are not hungry at meal times, try to have a few bites and stick to your schedule as best as possible.
- Eat protein foods first, fruits and vegetables second, and starch last.
- Continue drinking 1-2 protein shakes as a meal. You may begin adding ¼ cup of blended fruit to your shakes if desired.
- Do not drink with meals and avoid drinking within 30 minutes after eating.
- Avoid carbonated and caffeinated beverages during this stage.
- Take small bites the size of a pencil eraser. Chew each bite 20-30 times or until food is a pureed consistency. Swallow one bite at a time. Wait at least a minute between each bite.
- Temporary lactose intolerance can develop during this time. If you experience bloating, gas, stomach cramps, or diarrhea after eating milk products or protein shakes, you may benefit from switching to lactose free skim milk and isolate-based lactose free protein supplements.

4 Basic Guidelines of Stage 4 Diet

Before you choose to eat something, consider whether your food/beverage choice meets the following rules:

1. Is the food a pureed consistency or chopped/ground smaller than a pencil eraser?
2. Is the food moist?
3. Is the food high in protein?
4. Is the food low in sugar and fat?

If the answer is “no” to any of the above guidelines, consider how you can modify it to meet the guidelines. If you cannot modify it, choose another food!

Meal Preparation Tips

- **To prepare foods to a pureed/blended texture:**
Add food item(s) to food processor or blender, add 2-4 tablespoons of broth, fat free gravy, or other approved condiment of choice and blend until completely smooth.
 - » Recommended foods to blend: soups, beans, fruit, cooked non-starchy vegetables, potatoes/sweet potatoes/squash, and instant oatmeal prepared with skim milk and/or protein powder
- **To prepare foods to ground/chopped texture:**
Use a knife or food processor to chop chicken, turkey, fish, ground meats, boiled eggs, cooked vegetables. Chopped pieces of food should be no bigger than the size of a pencil eraser.
 - » Recommended foods to chop/grind: canned tuna or chicken, white fish, 90% lean cooked ground meat/meatloaf/meatballs, lean deli meat, eggs, tofu
- Use moist methods of cooking like roasting, baking, stewing, steaming, poaching, slow cooking, pressure cooking. Avoid grilling or broiling since this tends to make food too dry, causing it to “get stuck”.
- Adding moisture to your foods can alleviate the feeling of food “getting stuck”. Try adding fat free gravy, light mayonnaise, light dressing, mustard, lemon juice, or other condiments listed on the shopping list. A splash of skim milk, broth, or water can help to thin out foods that are too thick.
- Tolerance of foods and beverages can vary. Taste changes may occur. For example some may tolerate ice-cold beverages better while others prefer liquids at room temperature.

Bariatric Diet: Stage 4 (Pureed/Ground)

From 2 week dietitian post-op visit until next dietitian visit

	Day 1	Day 2	Day 3	Day 4	Day 5
Drink 6:30 – 7:30 a.m.	8 ounces fluid: water, broth, sugar free jello, sugar free popsicles, sugar free non-carbonated non-caffeinated beverages (i.e. Crystal Light, Gatorade Zero, etc.), decaffeinated or herbal tea, decaffeinated coffee				
Breakfast 8:00 – 9:00 a.m.	8 ounce protein shake + 2 tbsp powdered peanut butter (28 grams protein)	1/3 cup egg whites, 2 tbsp part-skim shredded mozzarella cheese (13 g protein)	1/3 cup instant oats prepared w/ 6 oz skim milk + 1/2 scoop protein powder (21 g protein)	1/4 cup low fat cottage cheese, 1/4 cup diced pears in 100% juice, drained (7 g protein)	5.3 ounce Dannon Triple Zero Greek Yogurt (15 g protein)
Drink 9:30 – 11:30 a.m.	16 ounces fluid: water, broth, sugar free jello, sugar free popsicles, sugar free non-carbonated non-caffeinated beverages (i.e. Crystal Light, Gatorade Zero, etc.), decaffeinated or herbal tea, decaffeinated coffee				
Lunch noon – 1:00 p.m.	1/2 cup egg salad prepared w/ light mayonnaise & dried seasonings of choice (10 g protein)	1/2 cup chicken salad prepared w/ light mayonnaise & dried seasonings of choice (21 g protein)	8 ounce protein shake (23 grams protein)	2 ounces 93% lean ground chicken, 2 tablespoons mashed cauliflower, 2 tbsp low fat gravy (14 g protein)	2 ounces 93% lean ground beef, 2 tbsp part-skim ricotta cheese, 2 tbsp marinara sauce (18 g protein)
Drink 1:30 – 2:30 p.m.	8 ounces fluid: water, broth, sugar free jello, sugar free popsicles, sugar free non-carbonated non-caffeinated beverages (i.e. Crystal Light, Gatorade Zero, etc.), decaffeinated or herbal tea, decaffeinated coffee				
Snack 3:00 – 3:30 p.m.	1/2 cup low fat cottage cheese + 1 tsp Ranch dressing powder mix (14 g protein)	8 ounce protein shake (23 grams protein)	1/2 cup part-skim ricotta cheese + 1 tsp almond extract + sugar substitute (7 g protein)	8 ounce protein shake (23 grams protein)	1/2 cup sugar free fat free pudding, prepared from mix w/ skim milk (4 g protein)
Drink 4:00 – 5:30 p.m.	12 ounces fluid: water, broth, sugar free jello, sugar free popsicles, sugar free non-carbonated non-caffeinated beverages (i.e. Crystal Light, Gatorade Zero, etc.), decaffeinated or herbal tea, decaffeinated coffee				
Dinner 6:00 – 7:00 p.m.	1/2 cup fat free Hormel Turkey Chili (12 g protein)	2 ounces 93% lean ground turkey, 1/4 cup mashed butternut squash (14 g protein)	2 ounces white fish, 2 ounces mashed carrots (14 g protein)	1/2 cup tuna salad prepared w/ light mayonnaise & dried seasonings of choice (21 g protein)	8 ounce protein shake (23 grams protein)
Drink 7:30 – 10:00 p.m.	20 ounces fluid: water, broth, sugar free jello, sugar free popsicles, sugar free non-carbonated non-caffeinated beverages (i.e. Crystal Light, Gatorade Zero, etc.), decaffeinated or herbal tea, decaffeinated coffee				
Protein	64 grams	71 grams	65 grams	65 grams	60 grams
Fluid	72 ounces	72 ounces	72 ounces	72 ounces	72 ounces

Stage 5: Lifelong (low fat, no sugar added, solid foods)

- **Initiation:** 5-7 weeks after surgery
- **Duration:** Lifelong
- **Intake:**
 - 3 meals per day
 - 2-3 snacks per day
 - Drink a minimum of 12 ounces of water or clear liquids between meals
- **Goals:**
 - Meet minimum protein goal of 60-80 grams/day
 - Meet minimum fluid goal of 64 ounces/day
 - Continue daily vitamin/mineral supplements
 - Include more variety and balance to your diet

Shopping List of Allowed Foods:

Protein Supplements:

- Protein powder
- Ready-to-drink protein shake
- Protein bars

Meats/Beans/Nuts/Alternatives:

- Lean chicken, turkey, beef or pork
- 90% lean ground chicken, turkey or beef
- Fish, shellfish
- Canned chicken, turkey, or fish in water
- Lean deli meat
- Lean chicken or turkey sausage or bacon
- Eggs, egg whites, or egg substitutes
- Low fat, high protein soups
- Beans, lentils, split peas
- Tofu, tempeh
- Peanut butter
- Nuts, seeds

Dairy:

- Skim milk (or lactose free skim milk)
- Light soy milk
- Greek yogurt, nonfat or low fat
- Light or plain yogurt
- Cottage cheese, nonfat or low fat
- Ricotta cheese, or low fat
- Cheese, fat free, low fat, part-skim or 2%

- Sugar free, fat free pudding mix (prepare with skim milk)

Fruits:

- All fresh fruit
- Frozen fruit without sugar added
- Canned fruit in light syrup or juice

Non-Starchy Vegetables:

- All fresh, frozen or canned non-starchy vegetables
- Low sodium tomato juice

Starches (avoid all pasta, rice, and bread until 3 months after surgery):

- High protein, high fiber cereal
- Plain or low sugar oatmeal
- Whole grain pasta, brown rice, quinoa
- Low carb or light whole grain bread
- Whole grain crackers, pretzels, fat free popcorn
- Starchy vegetables (potatoes, sweet potatoes, corn, peas, winter squash)

Condiments:

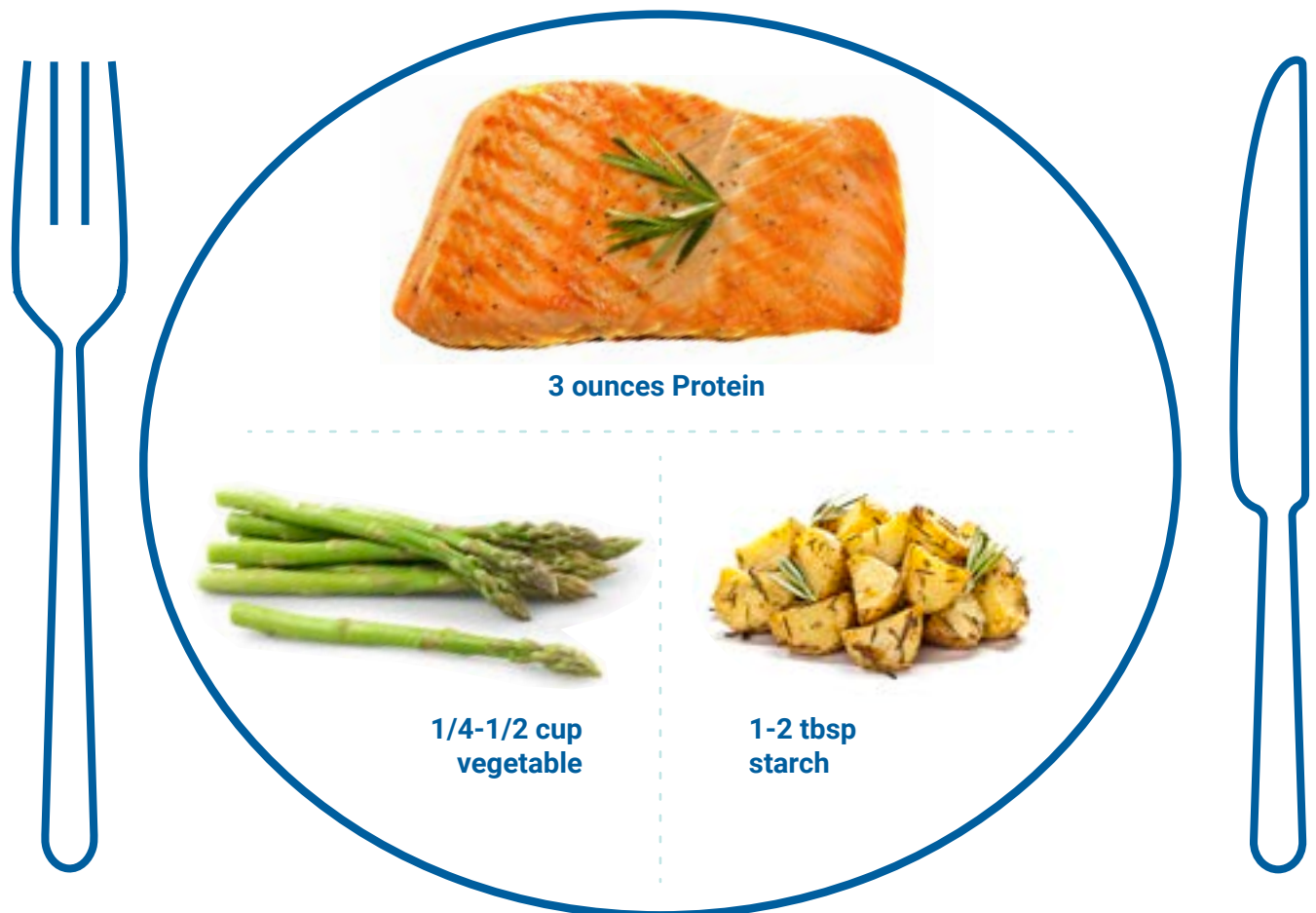
- Fat free gravy, light mayonnaise, light salad dressing, mustard, ketchup, relish, pickles, olive oil or spray, light margarine spread or spray, hummus, salsa, avocado, sugar free jelly or jam, sugar free BBQ sauce or marinades

Bariatric Diet: Stage 5 Example Menu

Starts at 5 week post-op visit with dietitian until 3 month post-op visit with dietitian.

	Day 1	Day 2	Day 3	Day 4	Day 5
Breakfast	Protein Shake: 1 scoop Unjury vanilla protein powder + 8 oz skim milk + ½ cup frozen peaches (23g protein)	Omelet: 2 egg whites, ½ ounce feta cheese, 1 handful spinach, 1 Alfresco chicken sausage breakfast link (15g protein)	Oatmeal: 1/3 cup oats w/ 6 oz water, ½ scoop Unjury protein powder, ¼ cup blueberries, 1 tbsp chopped walnuts, cinnamon (16 g protein)	Protein Pancakes: 1/3 cup Kodiak pancake mix made w/ 1/3 cup skim milk + 2 tbsp SF syrup + 4 sliced strawberries (12g protein)	Yogurt Parfait: 5.3 ounce Dannon Triple Zero Greek Yogurt w/ ¼ cup Kashi Go cereal, ½ small sliced banana (20 g protein)
Snack	½ medium banana, 1 tbsp peanut butter (5g protein)	1 clementine, 100 calorie pack cashews (4g protein)	1 string cheese, 10 slices turkey pepperoni (10g protein)	8 ounces Core Power protein shake (24 grams protein)	1 Built protein bar (15g protein)
Lunch	2 ounces deli turkey slices rolled up with 1 slice Cabot light cheddar cheese, ¼ sliced avocado (17g protein)	2 ounces (1/2 can) tuna salad w/ light mayo, diced celery & onion + 8 Triscuit Thins (17g protein)	1 scoop Unjury chocolate protein powder + 8 oz unswt almond milk + ½ medium banana + 2 tbsp PB2 (28g protein)	2 ounces canned chicken w/ light mayo, diced celery & onion + tomato slices (13 g protein)	½ cup Cedar's chickpea salad (5g protein)
Snack	½ cup low fat cottage cheese + 1 tsp Ranch dressing mix + cucumber slices (14 g protein)	11 ounce Premier Protein shake (30 grams protein)	½ One Protein Bar (10g protein)	¼ cup plain Greek yogurt, 1 tsp Ranch dressing mix, 8 wheat thins (11g protein)	1 medium sliced pear, 1 tbsp almond butter (5g protein)
Dinner	2 ounces rotisserie chicken w/ SF BBQ sauce, ¼ cup mashed sweet potato (14g protein)	2 ounces 93% lean ground beef meatball, ¼ cup marinara sauce, 2 tbsp shredded part-skim mozzarella cheese (15 g protein)	2 ounces salmon, ¼ cup cooked broccoli, 1 steamed baby potato (15 g protein)	3 ounces cooked shrimp, 1/4c cooked zucchini noodles, 4 cherry tomatoes, 1 tbsp pesto, 1 tbsp parmesan cheese (15g protein)	11 ounce Ensure MAX protein shake (30 grams protein)
Calories	815	750	800	800	815
Protein	77 grams	81 grams	79 grams	75 grams	74 grams

Post-Surgery Bariatric Plate



Note: Use a small appetizer sized (8 inch) plate.

Other helpful tips:

- Eat your protein first!
- Meals should be eaten every 3-4 hours
- Chew foods well, 20-30 times per bite
- Space time between each bite
- Prolong meal duration to 20-30 minutes
- Don't drink during meals and wait 30 minutes after a meal to drink
- Wait to introduce raw vegetables until at least 7 weeks postop
- Avoid untoasted bread products, pasta, rice, or other cooked grains until 3 months postop

Ensuring Success After Surgery

Follow-Up Appointments

It is important to follow-up with the bariatric team regularly after surgery to ensure your safety and success. You will follow-up with the surgeon, physician assistant, nurse practitioner, and dietitian where we will monitor for potential complications, ensure you are well nourished, obtaining adequate vitamin and minerals (lab work will be checked regularly), and track your progress.

Your first follow-up visits after surgery will be provided to you at the time your surgery is scheduled. You will continue to have regular visits, initially every few weeks, and later every few months throughout the first year after surgery. You will be seen by one of the team providers annually after the first year until 5 years from your surgery date.

Support Groups

Research shows that patients who attend support groups after surgery lose more weight, and maintain their weight loss longer. Our monthly support group is free to all patients. Refer to the "Support Group" section for more information.

Additionally, we have a closed Facebook group open to patients in our program for ongoing support.

Emotional Considerations

Bariatric surgery impacts you physically and psychologically. These changes should not be taken lightly, and need to be taken into consideration before surgery. After surgery, you will experience mixed emotions that may include depression, frustration, anxiety, anger, disappointment, helplessness, euphoria, excitement, and joy. These are normal reactions to your changing body image, and may change day to day as you adapt to your new lifestyle.

This surgery gives you control over one aspect of your life – weight loss. It is important to keep in mind that this surgery will not give you control over other life struggles such as problems with your

spouse, friends, family members, employment, or social life. Surgery changes the lifestyle and routine you were familiar with. Once the reality of your new lifestyle sets in, you may find yourself longing for your old routines and way of life.

This expresses itself in several stages. These stages include:

- Denial
- Anger
- Bargaining
- Depression
- Acceptance

Due to the excitement and positive outlook before surgery, many patients fail to consider the emotional and physical stress that accompanies surgery. After surgery, some patients who have not yet adjusted to the smaller capacity of their stomachs tend to overeat. They experience painful consequences, and later become angry for making this choice. This anger may also surface when other discomforts or complications develop during the recovery period. These feelings are difficult to accept or express openly, and depression may follow. Feelings of sadness and crying episodes can be common occurrences. These emotional responses to surgery are completely understandable. They cannot be eliminated, but must be experienced and worked through. Adapting to the changes taking place in your body and in your relationship to food can take many months.

Counseling

A major lifestyle change can sometimes cause new problems to emerge or old ones to intensify. Emotional counseling can help you deal with struggles that may arise in adjusting to your new body image and the many other changes that accompany weight loss surgery. Professional counseling can be a positive step in your emotional health.

Social Relationships

You can expect your family and friends to have variable reactions to your surgical experience, if they know about it, and to the weight loss that follows. After surgery, people who have known you may have become secure in your obesity and have difficulty adapting to the new body and lifestyle you have developed. Your goals and hobbies may change, and you may no longer relate as well to others who you previously enjoyed spending time with. Some people may be resistant to the change they see, be resistant to support your diet or exercise regimen, or develop jealousy. Keep in mind that your main responsibility is yourself and that others are responsible for their own feelings and actions. Hopefully, most close family members and friends will adjust over time.

Exercise

We encourage cardiovascular and resistance exercise after surgery to support overall health, weight loss, weight maintenance, and maintenance of muscle mass.

There are a variety of classes and wellness programs offered locally at The Works, a Wentworth-Douglass Hospital Family Health & Fitness Center. Notify the bariatric team if you are interested in these programs to obtain a referral.

Reconstructive or Plastic Surgery

It is common to experience excess skin on your arms, legs, and abdomen following significant weight loss. Excess skin on the abdomen is often referred to as a pannus or “apron”. If it becomes large enough, rashes, open sores, and fungal infections can occur. It is important you notify your surgeon and/or primary care physician if you notice this. Plastic surgeons can usually correct this problem, but most will require that the patient be at least one year out from surgery, and have a stabilized weight. Insurance coverage varies for this surgery. Many insurance companies require 6-12 months of documentation of recurring infections or rashes related to the excess skin.

Pregnancy and Sexuality

You may resume sexual activity when you feel physically and emotionally stable. Women need to use a mechanical form of birth control since fertility may be increased with weight loss and oral contraceptives may not be fully absorbed. You may begin to plan a pregnancy 18 months after surgery. Getting pregnant prior to this can compromise weight loss and is dangerous to both you and the baby since your nutrient intake is too low to support both you and the fetus. Should you become pregnant, ask your OB/GYN to contact your bariatric team to discuss specific concerns related to pregnancy after bariatric surgery.

Weight Gain

It is possible to regain weight after surgery. This usually happens when old habits return. A year after weight loss surgery, many patients find that they are able to tolerate most foods, have less incidence of dumping syndrome, and can eat larger portions. This is when it is important to remember the lifestyle changes you learned in the program. Just because you can eat something doesn't mean that you should. Resuming previous lifestyle changes that made you successful initially with weight loss can help get back on track. Examples include eating a healthy balanced diet, eating mindfully, taking your vitamins, and regularly exercising. We encourage continued attendance to support groups to assist you with the ups and downs of bariatric surgery.

Bariatric Surgery and Alcohol Behavior

Research has shown an increased risk for alcohol-related problems following bariatric surgery. Neurobiological and psychological reasons contribute to this problem. Risk of “cross-addiction” is likely to increase if you have a strong family or personal history of depression, alcohol abuse, drug abuse, or smoking. Refer to the information learned and written materials given from your Behavior Modification Classes before surgery. If you find yourself engaging in “addictive” behaviors such as alcohol, gambling, sex, shopping, or drugs after surgery, please contact your behavioral health provider or discuss with your PCP.

Notes

Notes

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