

A doctor in a white lab coat with a green stethoscope around their neck is holding a large, circular medical scale. The scale has multiple concentric rings with numbers ranging from 0 to 320. The doctor's hands are visible at the bottom of the scale.

Treating.  
Transforming.  
Advancing.

# Bariatric Surgery Program Guide



Penn  
Highlands  
Healthcare

**Bariatric  
Surgery**

Advanced Medicine. Here.



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# Penn Highlands Healthcare

## Bariatric Surgery Program

### Welcome

- We are excited to introduce our bariatric surgery program. We are honored to serve our community and beyond with this very important service.
- Penn Highlands is a well-rounded health system, with an established supervised weight management program and diabetes management program.
- We can and will individualize your care with the existing specialist in our health system - including Endocrinology, Cardiology, Gastroenterology, Psychology/Psychiatry, Critical Care, Nutrition/Dietary, Physical Therapy/Exercise Therapy, Pulmonary Medicine (Sleep Apnea).
- We have a dedicated registered nurse bariatric coordinator who will help organize your care every step of the way.
- We have partnered with an all online bariatric surgery nutrition counseling and education program that prepares you for successful bariatric surgery and can improve your long term success.
- We will take care of you before, during and for a lifetime after your surgery.

### Our Surgeons

- Graduated from approved medical schools.
- Completed accredited residency training in general surgery.
- Certified by the American Board of Surgery.
- Completed fellowship training in advanced laparoscopic surgery and bariatric surgery.
- Maintain membership in the American Society of Metabolic and Bariatric Surgery.
- Have experience of 100+ bariatric operations.

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## The “Why”

Every patient who approaches a bariatric or medical weight-loss program has an individual reason “why.” We will discuss that with you - we will discuss your personal goals.

Living with obesity not only can affect your quality of life, it can have severe effects on your short- and long-term health. Comorbidities such as type 2 diabetes, coronary artery disease, non-alcoholic steatohepatitis, high blood pressure and stroke, are related to obesity. Bariatric surgery can improve and sometimes resolve these comorbidities.

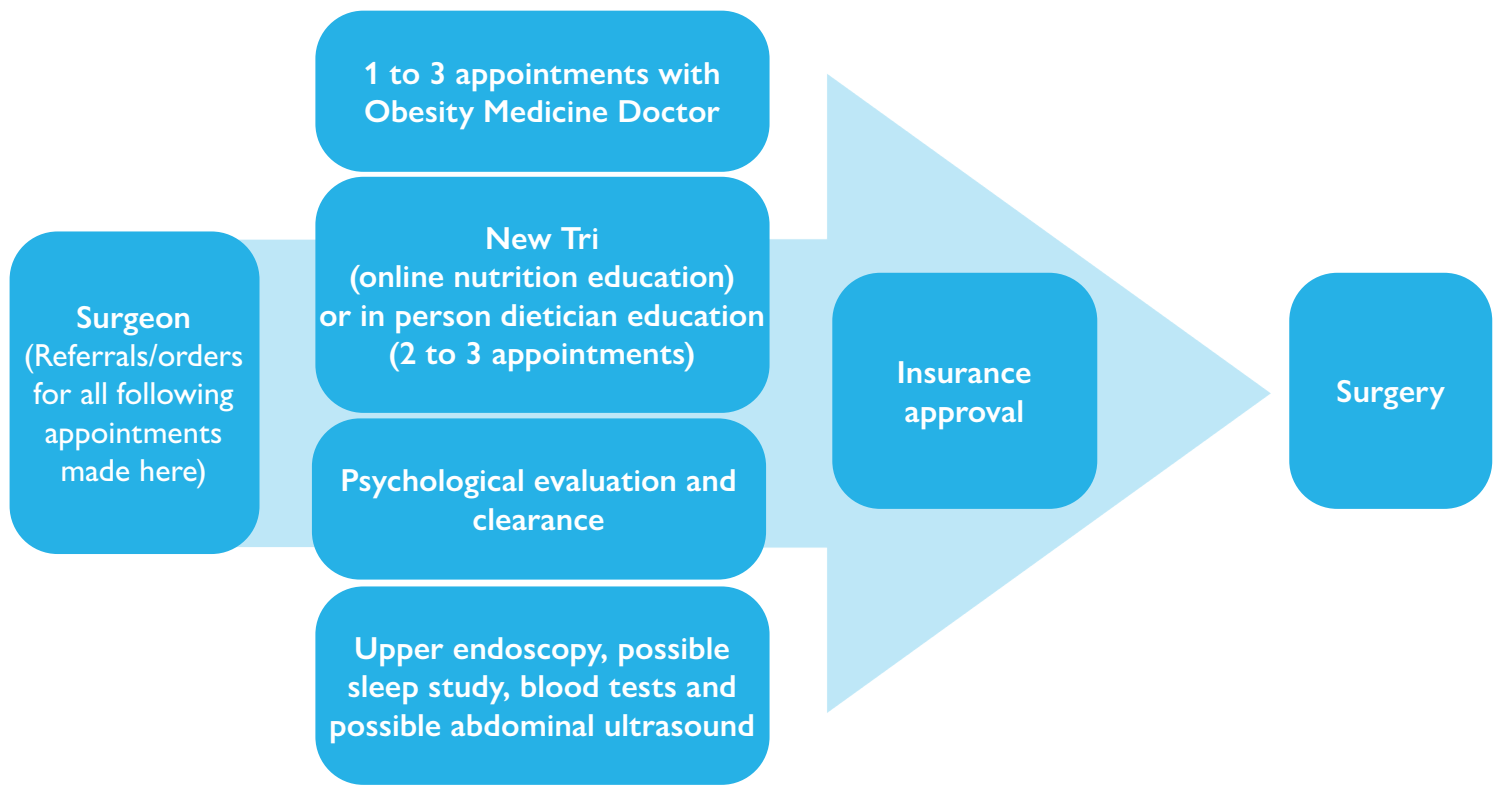
Many patients have tried multiple avenues for weight-loss in the past - and have suffered with feelings of guilt surrounding an inability to lose weight or to maintain weight-loss. We are here to tell you this is not your fault! Obesity is a complex metabolic disorder and your body may have reached a new set-point. It can be extremely difficult if not impossible to escape this set-point, these metabolic strong holds.

The only proven long-term solution to obesity and its related illnesses is weight-loss surgery.

At Penn Highlands we want to offer you an individualized, but standardized approach to your weight-loss journey. We want to help you to meet your personal goals regarding your quality of life and your health. We can offer you a minimally invasive, evidence-based procedural approach to weight-loss.

Bariatric surgery is just a tool, it is a part of a larger lifestyle change. Our team will be there for you before and after to help you to maintain your goals.

# The Flow of the Program



The length of time of the above steps is related to your insurance company’s rules for coverage. A general guide for common Pennsylvania insurance plans is supplied below.

Plan	Details
UPMC Health Plans	<ul style="list-style-type: none"> <li>• if BMI 35-40: Must have an obesity related diagnosis and must do a 6 month pre-operative physician and nutritionist supervised diet and exercise program</li> <li>• if BMI 40-55: if you DO NOT have an obesity related diagnosis, timeline required is still 6 months</li> <li>• if BMI 40-55: if you DO have an obesity related diagnosis, timeline is up to the bariatric team (2-3 months)</li> <li>• if BMI &gt; 55: timeline is up to the bariatric team (2-3 months)</li> </ul>
Highmark/Blue Cross Blue Shield Plans	Timeline is determined by the bariatric surgery team (2-3 months)
Aetna	Requires 12 pre-operative appointments
Cigna	Timeline is determined by the bariatric surgery team (2-3 months)

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# The Main Steps Of The Program

## STEP 1

### Watch our online video seminar

- **ONLINE SEMINAR:**  
The seminar will tell you more about our program, about the procedures offered and the pre- and post-operative requirements and experience. If you have questions after watching the Online Seminar, your physicians will address these at your scheduled appointment. Take notes!

## STEP 2

### Complete the questionnaire

- To qualify for insurance coverage weight-loss surgery - we need to submit specific information to your insurance company. This questionnaire provides that information. It will also help providers to complete a risk stratification to individualize your care and determine what other specialists you will need to see before surgery.

## STEP 3

### Call your insurance company

- Ask your insurance company if the following most common weight-loss surgery options are covered by your insurance at our health system:
  - **Procedure Codes**
    - Roux-en-Y gastric bypass (CPT Code 43644)
    - Sleeve gastrectomy (CPT Code 43775)
  - **Diagnosis Codes**
    - Obesity non-otherwise specified ICD-9 code: 278.00
    - Obesity unspecified ICD-10 code: E66.9

Penn Highlands Healthcare accepts most major insurance carriers including Medicare and Medicaid.

- Please obtain from your medical doctors:
  - Medical documentation of a weight history
  - Documentation of diets attempted
  - Documentation of weight-loss drugs

All of this information will expedite the insurance company approval for your surgery.

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## STEP 4

### Specialist Consultation

Your questionnaire may reveal that you require evaluation by our specialists, in addition to other required pre-operative screening appointments of the program. Our bariatric coordinator will help you to keep track of your appointments.

All patients are required to have a nutritional and psychological evaluation done at Penn Highlands Healthcare. We will refer you to these appointments at your initial surgery consultation. The other required specialist assessments are determined by your personal history and physical.

**These 4 categories are required before surgery:**

1. Surgery consult
2. Medical evaluation
3. Psychological evaluation
4. Nutritional evaluation

## STEP 5

### Insurance approval

**This step cannot be completed until “Step 4” is completed.** We will contact your insurance carrier requesting approval for the surgical weight-loss procedure.

- Some insurance companies will make the decision about your surgery within a few weeks.
- Some insurance carriers take several weeks or months to return a decision.

We will contact you when we have heard from your insurance company. You may contact your insurance company to check on the status of your insurance approval.

## STEP 6

### Pre-operative clinic visit

At this visit, we will provide a review of education, a private visit with your surgeon as well as schedule your date of surgery. You will soon start your 2 week pre-operative diet (to shrink your liver before surgery). We will have you sign your informed consent for surgery.

*You are almost there!*

## STEP 7

### The Surgery and the Hospital Stay

The date and time of your surgery are provided to you. You will be provided our ERAS (enhanced recovery after surgery) protocol for what to drink, up to what time before surgery. You will also take ERAS medications to optimize pain control and bowel function in the pre-surgery unit. Most patients are in the hospital for 1 or 2 days. Most patients return to work approximately 4 weeks after surgery or sooner. We will answer all of your other questions about this step at your appointment - and further information exists in this manual as well as the online seminar.



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# Should I Get Weight-Loss Surgery?

- Am I a Weight-Loss Surgery candidate?
- What can I expect from surgery?
- What are the offered procedures?
- What are the risks to me?
- Other important questions to ask my provider (write below or in notes section):

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# Am I A Weight-loss Surgery Candidate?

## Am I Obese?

Class 1 obesity is BMI > 30

Class 2 obesity is BMI > 35

Class 3 obesity is BMI > 40

To calculate your BMI, refer to the CDC BMI calculator.

## What It Means

- BMI from 18.5 to 24.9 is a healthy weight
- BMI from 25.0 to 29.9 is an overweight condition
- BMI from 30.0 to 39.9 is moderate obesity
- BMI of 40 or above is severe obesity

BMI alone does not completely measure your need for bariatric surgery. Obesity related comorbidities are what lead many to consider bariatric surgery. The ASMBS (American Society for Metabolic and Bariatric Surgery ) and IFSO (International Federation for the Surgery of Obesity ) position statements agree that patients with a BMI greater than 30 should be offered (and covered by insurance for) bariatric surgery. Some Pennsylvania insurance companies now cover BMI > 30 if the patient has type 2 diabetes.

- A patient with a BMI > 35 and an obesity related condition is a candidate.
- A patient with a BMI > 40, even without a diagnosed comorbidity, is a candidate for surgery.

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# What Can I Expect From Weight-loss Surgery?

## Results of Weight-loss Surgery

**Roux-en-Y Gastric Bypass** - most patients will lose about 70% of their excess body weight. Substantial weight-loss occurs 12 to 18 months after surgery; some weight regain is normal and can be expected at two to five years after surgery.

**Sleeve Gastrectomy** - most patients will lose 55 to 65% of their excess body weight in 12 months. Some long-term data suggests that most patients, after five years, maintain over 50% excess weight-loss.

## Benefits of Weight-Loss Surgery

Successful weight-loss can improve or resolve the health problems you are experiencing related to obesity. Research has shown that the weight-loss achieved with bariatric surgery can be maintained for years following surgery.

## Potential Health Benefits of Bariatric Surgery

- Improve survival
- Lower blood pressure
- Normal cholesterol
- Improvement or cure of diabetes
- Heart health
- Asthma control
- Respiratory sufficiency
- Sleep apnea improves
- Resolution of reflux (after bypass)
- Improvements in urinary stress incontinence
- Improved low back pain, degenerative disk disease and degenerative joint disease

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# What Procedures Are Offered At Penn Highlands Healthcare?

- More procedures are offered, but may not be covered by insurances.
- Revisional surgery is also offered and covered.
- The following primary operations are covered by most insurances

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

RYGB is one of the most common types of bariatric operations. The surgeon begins by creating a small pouch by dividing the upper end of the stomach. This restricts the food intake. Next, a section of the small intestine is attached to the pouch to allow food to bypass the duodenum, as well as the first portion of the jejunum. The small intestine is re-connected 150 centimeters from the pouch to allow ingested food and digestive enzymes to mix.

## **Sleeve Gastrectomy (SG)**

The Sleeve Gastrectomy (also known as Vertical Gastrectomy) includes removing about 75% of the stomach leaving a narrow gastric tube or “sleeve” through which food passes.

No intestines are removed or bypassed during sleeve gastrectomy and no device or implant is placed.

Laparoscopic Sleeve Gastrectomy can be used as a primary weight-loss operation and is also used as a first step operation in patients with very large BMI or high risk medical patients. The second stage operation in these patients is a type of bypass procedure that is done 12-18 months after LSG when the patient has lost weight and is lower risk.

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# Tobacco and Alcohol

## Tobacco

Patients are required to stop smoking prior to surgery and permanently avoid all tobacco products (e.g., cigarettes, cigars, chewing tobacco, hookah, e-cigarettes, vaporizers, nicotine patches/gums). Depending on the surgical procedure, patients must quit all nicotine products from one to six months before surgery is scheduled. A series of negative nicotine screens are required to verify abstinence.

### Smoking Effects

- Impedes proper lung function.
- Increases risk of pneumonia post-op.
- Reduces circulation by constriction.
- Inhibits healing of surgical sites.
- Increases risk of blot clots (DVT).
- Stimulates production of stomach acid.
- Increases risk of ulcer formation.

For additional information call, PA Free Quitline at 1-800-Quit-Now (1-800-784-8669) or visit the Pennsylvania Department of Health Quit Logix at <https://pa.quitlogix.org/en-US/>.

## Alcohol

Excessive use of alcohol may substantially increase operative risks or may result in cancellation of surgery. Post-operative alcohol use the first six-months should be completely avoided while your surgical sites are healing. Alcohol can cause gastric irritation and lead to ulcer formation.

Your tolerance for alcohol will dramatically change after surgery. Use caution with alcohol consumption, as a few sips can be highly intoxicating. It will also take longer to metabolize alcohol. One drink after gastric bypass surgery puts you above the legal level of intoxication (0.08). Bariatric surgery is related to increased risk of developing an alcohol use disorder, even if you did not have problems with drinking before surgery.

Finally - Because alcohol is high in calories, it may cause “dumping syndrome” and can interfere with weight-loss and/or maintenance.

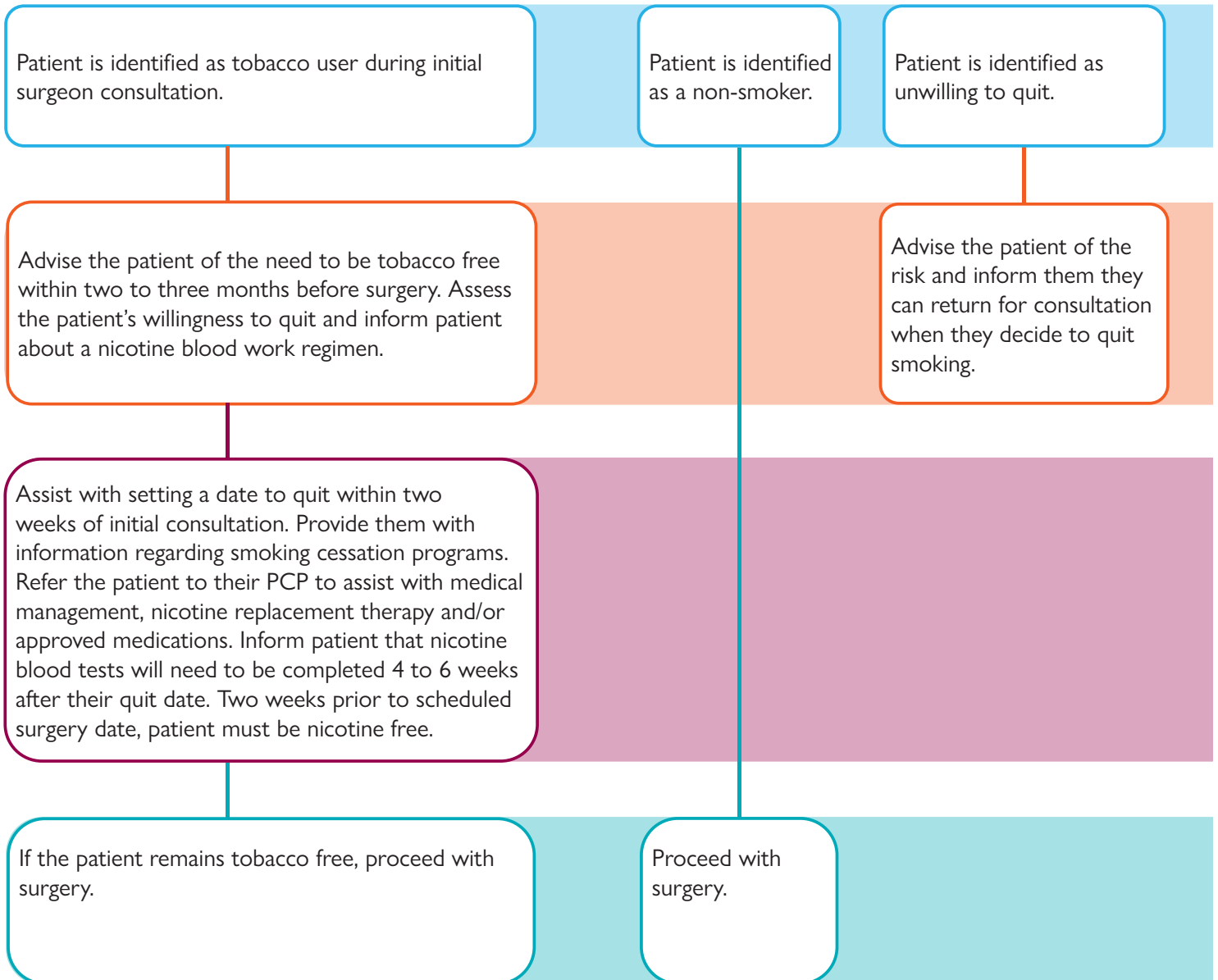
We do not recommend use of alcohol after bariatric surgery. If you choose to drink alcohol after the six month recovery period, limit yourself to one or less. Never drive if using alcohol after bariatric surgery.

# TOBACCO CESSATION ALGORITHM

## *Penn Highlands Bariatric and General Surgery*

The bariatric surgery program at Penn Highlands Healthcare requires patients to quit smoking prior to having surgery. The flow chart depicts the cessation process for bariatric surgery.

### **ASK PATIENT ABOUT TOBACCO USE**



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# Behavioral Health/Psychology

## Weight-loss Surgery and Behavioral Health

All Penn Highlands bariatric program patients receive a behavioral health evaluation because many habits, behaviors, thoughts and emotions can affect the success and the long term outcomes of surgery.

At your appointment, you will be interviewed by the behavioral health/psychology specialist. You may need more than one appointment, ultimately, to be cleared for surgery.

You will be offered pre- and post-operative education and training and exercises related to behavioral health.

These may include (but are not limited to) mindful eating behaviors, stress coping strategies and support groups. This is available both pre- and post-operatively.

Support groups give you additional information about weight-loss surgery and the behavioral changes that you will need to make in order to reach a healthier weight and maintain it for the rest of your life.

In summary, we want to help you achieve the best possible post-surgical outcome. If you have any questions or concerns, please do not hesitate to share them.

## Behavioral Health Specific Notes

<b>“Eating through”</b>	Surgery physically reduces the size of your stomach, it will not prevent you from eventually gaining back weight if you do not learn how to reduce the amount of food you eat and increase your physical activity to promote calorie burning.	It is possible to “beat” the surgery by eating fatty foods or liquids (such as potato chips, milkshakes, ice cream, etc.), “graze” throughout the day or return to a sedentary lifestyle.
<b>Binge Eating Disorder and Night Eating</b>	Having a diagnosable eating disorder before surgery may increase the chances of poorer weight-loss outcomes. Weight regain often occurs 2-5 years after surgery.	Cognitive-behavioral consultation/psychotherapy is often necessary to treat such eating disturbances.
<b>Clinical Depression</b>	Individuals with mental health difficulties are at an increased risk of medical complications, emotional distress and decreased satisfaction following surgery. Stabilization of any mental health problems is an important pre-operative goal.	Prescreening for psychological difficulties is important so that proper intervention can be established, reducing the risk of post-surgery complications.
<b>Stress Eating</b>	Individuals who use eating to cope with negative emotions or stress are less successful after surgery.	Success increases if they have learned pre-operatively to replace eating with healthier coping strategies such as relaxation, exercise, or developing a hobby.
<b>Alcohol or Substance use Disorder</b>	Those who have had prior substance abuse problems are at an increased risk for relapse. Alcohol is metabolized differently after surgery leading to quick intoxication on much smaller amounts.	You cannot have surgery with an active alcohol or substance use disorder.
<b>Self Esteem</b>	Weight-loss surgery alone will not increase your self-esteem. Many factors play a role in one’s self-esteem, such as current and past experiences, perceptions and attitudes.	How you perceive yourself after surgery depends on more than just weight-loss. This is especially true when an individual’s weight begins to increase or stabilize after surgery.



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# Non-Steroidal Anti-Inflammatory (NSAIDs)

Please ask your surgeon about Non-Steroidal Anti- Inflammatory (NSAIDs).

Stop TWO WEEKS prior to weight-loss surgery.

Non-Steroidal Anti- Inflammatory (NSAIDs) have been linked to cause stomach ulcers after weight-loss surgery.

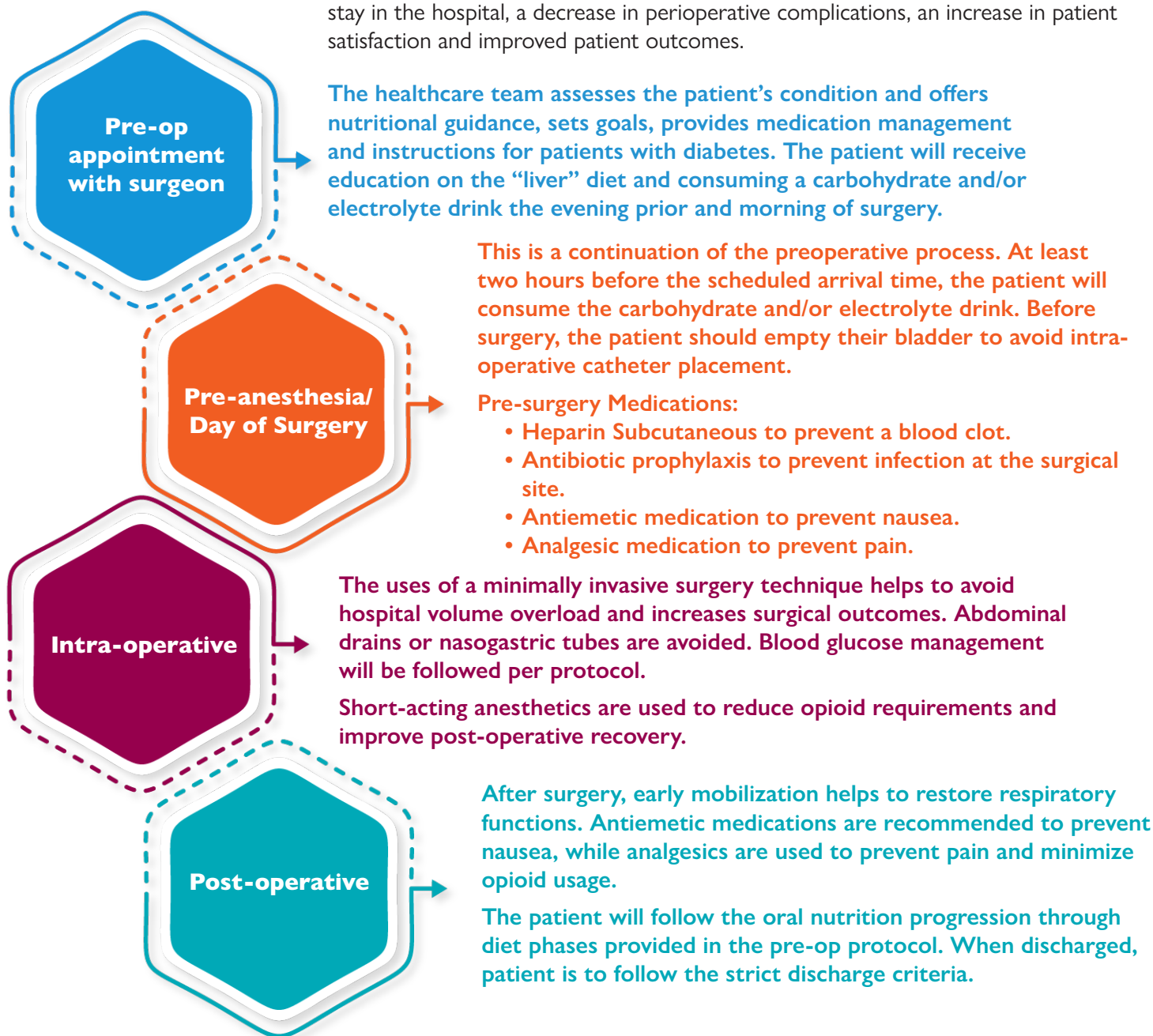
## List of Medications Associated With Bleeding or Ulcers Non-Steroidal Anti-Inflammatory (NSAIDs)

- Advil®
- Aleve®
- Anaprox®
- Ansaid®
- Aspirin® (Including Excedrin®, Bufferin®)
- Bextra®
- Cataflam®
- Celebrx®
- Clinoril®
- Daypro®
- Feldene®
- Ibuprofen®
- Indocin®
- Indocin SR®
- Lodine®
- Lodine XL®
- Motrin®
- Naprelan®
- Naprosyn /EC-Naprosyn Orudis®
- Relafen®
- Tolectin®
- Toradol®
- Vioxx®
- Voltaren®

# BARIATRIC AND GENERAL SURGERY

## Enhanced Recovery After Surgery (ERAS) Protocol

The bariatric surgery program at Penn Highlands Healthcare provides enhanced recovery after surgery protocol for patients. The ERAS protocol, along with medication, lead to a pathway of decreased length of stay in the hospital, a decrease in perioperative complications, an increase in patient satisfaction and improved patient outcomes.



Brindle M, Nelson G, Lobo DN, Ljungqvist O, Gustafsson UO. Recommendations from the ERAS® Society for standards for the development of enhanced recovery after surgery guidelines. *BJS Open*. 2020 Feb;4(1):157-163. doi: 10.1002/bjs5.50238. Epub 2019 Dec 2. PMID: 32011810; PMCID: PMC6996628.

# Risks of Bariatric Surgery

The current practice of bariatric surgery is extremely safe.

- Risk of complications after surgery is similar to gall bladder surgery, appendectomy and joint replacement.

Common risks to all surgery include bleeding and inadvertent injury to other structures.

The following tables review the potential risks of bariatric surgery. When you are at your surgical appointment, the risks of the surgery you are planning will be reviewed in detail.

1	<b>Allergic Reactions</b>	All drugs have inherent risks and in some cases can cause a wide variety of side effects including death.
2	<b>Anesthetic Complications</b>	Anesthesia used to put you to sleep for the operation can be associated with a variety of complications up to and including death.
3	<b>Bleeding</b>	From minor to massive bleeding that can lead to the need for emergency surgery transfusion or death.
4	<b>Blood Clots</b>	Also called Deep Vein Thrombosis and Pulmonary Embolus that can sometimes cause death.
5	<b>Infection</b>	Including wound infections, urinary infections, pneumonia, skin infections and deep abdominal infections that can sometimes lead to death.
6	<b>Leak</b>	After operation to bypass the stomach, the new connections can leak stomach acid, bacteria and digestive enzymes causing a severe abscess and infection. This can require repeated surgery and intensive care and even death.
7	<b>Narrowing (stricture)</b>	Narrowing (stricture) or ulceration of the connection between the stomach and the small bowel can occur after the operation. This may require endoscopic dilation and, rarely, re-operation.
8	<b>Dumping Syndrome</b>	Dumping Syndrome (symptoms of the dumping syndrome include cardiovascular problems with weakness, sweating, nausea, diarrhea and dizziness) can occur in some patients after Gastric Bypass caused by excess sugars, carbohydrates or fats.
9	<b>Bowel Obstruction</b>	Any operation in the abdomen can leave scar tissue that can put the patient at risk for later bowel blockage.
10	<b>Laparoscopic Surgery Risks</b>	Laparoscopic surgery uses punctures to enter the abdomen and can lead to injury, bleeding and death.
11	<b>Need for and Side Effects of Drugs</b>	All drugs have inherent risks and in some cases can cause a wide variety of side effects including death.

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# Clear Liquids

## Non Carbonated/Sugar-free/Low-Sugar/Clear Liquids

- Water Crystal Light®
- Wyler's Light®
- Diet Snapple®
- Diet Iced Tea®
- Propel®
- Veryfine Fruit20 O Plus®
- Glaceau Smart Water®
- Walgreens Natural Flavor H2O Plus®
- Low Calorie Juice (Splenda®)
- AriZona® Diet Ice Tea (Splenda®)
- Country Time Sugar-free Pink Lemonade Mix®
- Sugar-free Kool-Aid® Mix
- Champion Lyte Sugar-free Refresher® (Splenda®)
- Nestea® Diet Citrus Green Tea
- PJ's Crystal Beach Loganberry Diet®
- Caffeine-Free Coffee
- Caffeine-Free Tea
- Sugar-free Jello®
- Sugar-free Popsicle®
- Eddy's No Added Sugar Fruit Pops®
- Broth (chicken, beef, vegetable) Clear Liquids

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## Nutrition: Every step of the way

- What vitamins and minerals will I need?
- How will I fulfill my protein needs?
- Foods I may have to avoid after surgery
- Can I still have coffee?
- How does my diet change after surgery?
- Other important questions to ask my provider (include below or in notes section):

# What Vitamins And Minerals Will I Need?

## Roux-en-Y Gastric Bypass/Sleeve Gastrectomy Post-op Vitamin And Mineral Supplementation

### Where To Buy Vitamins?

Please read the labels to get the specific form and amount of vitamins.

- Bariatric Fusion / [www.bariatricfusion.com](http://www.bariatricfusion.com)
- Bariatric Advantage / [www.bariatricadvantage.com](http://www.bariatricadvantage.com)
- Celebrate Vitamins / [www.celebratevitamins.com](http://www.celebratevitamins.com)
- Health stores: GNC, The Vitamin Shoppe, Whole Foods
- Pharmacies: Walgreens, CVS
- Vita4Life - [www.vita4life.net](http://www.vita4life.net)

We do not endorse any company mentioned in this guidebook.

TYPE OF VITAMIN/ MINERAL	DOSAGE
<b>Adult Multivitamin with Iron</b>	Daily
<b>Calcium Citrate with Vitamin D Vitamin D3</b>	1200-1500 mg 3,000 IU
<b>Vitamin B12</b>	500mcg sub-lingual pill/day or 1cc injection monthly or weekly nasal spray (Rx)
<b>Vitamin B Complex (with Thiamine)</b>	Thiamine should be in the dosage of 75-100mg/day
<b>Iron</b> DO NOT TAKE WITH CALCIUM	45-60mg/day
<b>Zinc</b> <b>Biotin</b> Optimal to minimize temporary hair thinning	15mg/day 3000mcg/day

## PROTEIN SHAKES, POWDERS AND DRINKS

PRODUCT	SERVING SIZE	SUGAR (g)	PROTEIN (g)	COMMENTS
<b>Soy Protein Powders</b>				
Genisoy® Soy protein	3 Tbsp			
Puritan's Pride® Pure Soy Protein	1 scoop	0	25	
Soy Ultra XT® Natural Protein Powder	2 scoops	0	25	Available unflavored
Soy Protein	1 serving	10g CHO	21	Available unflavored
Super Blue Pro-96®	1 packet	<0.5	25	Available unflavored
<b>Protein Powders with No Artificial Sweeteners</b>				
Whey To Go®	1 packet	1	16	Available unflavored
Carb Solutions®	2 scoops	0	21	
<b>Ready to Drink Protein Shakes</b>				
Atkins™	1 can	1	20	
EAS® AdvantEDGE®	1 container	0	17	
Slim Fast® Low Carb	1 can	1	20	
EAS® Myoplex Lite	1 container	1	25	
EAS® Myoplex Carb Sense	1 container	<1	25	
EAS® Results	1 container	1	15	
Ultra® Pure Protein	1 can	1	35	
Resource Optisource®	4 oz	0	12	
Premier	1 container	1	30	
<b>Clear Protein Drinks (Fruit Flavored)</b>				
Isopure® Drink	20 fl	0	40	
Extreme Pure Protein® Drink	20 fl	0	42	
Protein Twist™	20 fl	0.5	40	
Whey Fruity®	1 scoop	0	26	
Nectar™	1 scoop	0	23	

## PROTEIN SHAKES, POWDERS AND DRINKS

PRODUCT	SERVING SIZE	SUGAR (g)	PROTEIN (g)	COMMENTS
<b>Protein Powders Continued</b>				
100% Whey Protein	1 scoop	2	21	
American Whey Protein™	1 scoop	6 g CHO	20	
Designer Whey Protein	20 fl	0.5	40	
Powder®	1 scoop	<1 g	18.5	
Pro-Score® 100	1 scoop		17	
Atkins™ Nutritionals Shake Mix	2 scoops	1	24	
Muscle Milk™	2 scoops	4	32	
Met-Rx® Protein Plus	2 scoops	2	46	
EAS® Precision Protein	1 scoop	2	20	
Nectar™	1 scoop	0	23	
Zero Carb Isopure®	3 scoops	0	50	
Keto Shake™	2 scoops	0	24	
Ultimate Nutrition® LO Carb Whey	1 scoop	<0.5	20	
ISS Research™ Advantage Matrix	1 packet	3	42	
ISS Research™ Complete Pro	1 packet	1	42	
Carb Watchers Lean Body®	1 packet	2	40	
Optimum Nutrition® Whey Gold	1 packet	4	45	
Muscle-Link™ Muscle Meals	1 packet	2	40	
Champion Ultramet® Lite	1 packet	2	29	
Jay Robb® Whey Protein*	1 package	0	25	
100% Raw Foods and Whey Protein*	1 package	1	20	
Biochem® 100% Green & Whey*	2 scoops	<1	20	



## Difficult Foods to Tolerate After Surgery

<b>Meat &amp; Meat Substitutes</b>	Steak Hamburger Pork chops Fried or fatty meat, poultry or fish
<b>Starches</b>	Granola Whole-grain or white bread (non-toasted) bagels Soups with vegetable or noodles Rice Dense pasta
<b>Vegetables</b>	Fibrous vegetables (raw celery, corn, cabbage)
<b>Fruits</b>	Dried fruits Coconut Orange and grapefruit membranes Skins (peel all fruit)
<b>Miscellaneous</b>	Carbonated beverages Pickles Seeds
<b>*Sweets (Mostly after bypass surgery) Sweets should NOT be part of your diet if you want to reach your weight-loss goal followed by weight maintenance</b>	Candy Desserts Jam/jelly Sweetened fruit juice Sweetened beverages Other sweets

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# The Two Week Pre-operative “Liver” Diet

Once you are given your surgery date, you will be asked to follow an 800 calorie liquid diet to begin 2 weeks before your surgery date.

This diet will consist of only protein shakes and clear liquids.

## Below Are Four Options That Are Recommended For The 800 Calorie Protein Liquid Diet

If you would like to use other products, discuss this with your dietitian or refer to the nutrition chapter in “Your Guide to Surgery” book.

- 4 half bottles of “High Protein” Slim Fast daily  
OR
- 5 half packets of “No Sugar Added” Carnation Instant Breakfast Drink mixed with fat free or 1% milk daily  
OR
- 5 individual cartons of Atkins Advantage daily  
OR
- 4 half bottles of “Glucose Controlled” Boost daily

Note: If you have diabetes and are taking oral medications and/or insulin or if you are being treated for high blood pressure, you will want to discuss this pre-op diet with your doctor who manages these medications.

## Clear Liquids Include

- Water
- Clear broth or bouillon
- Plain gelatin (NO sugar added, NO fruit or topping)
- Decaffeinated coffee or tea (NO milk/ creamer/sugar)
- Propel or Crystal Light beverages (NO sugar added)
- Popsicles (NO sugar added)

## DAY BEFORE SURGERY - LIQUID DIET

1. Last protein shake should be before 6:00 PM.
2. It is important that you stay hydrated - 64 ounces of fluid per day. Please measure the amount of fluid you drink.
3. Drink a 28-32 ounce bottle of a regular (not sugar free) sport drink (Gatorade, Powerade, etc.) the night prior to surgery. If the sport drinks aren't tolerable, you may substitute with no sugar added - no pulp juice - apple, cranberry, lemonade, white grape or orange.

## DAY OF SURGERY - CLEAR LIQUID DIET

Drink 12-20 ounces of a regular sport drink (or juice as above) stop liquids 2 hours before scheduled arrival time.

12	<b>Loss of Bodily Function</b>	Including stroke, heart attack, limb loss and other problems related to the operation and anesthesia.
13	<b>Risks of Transfusion</b>	Including Hepatitis and Acquired Immune Deficiency Syndrome (AIDS), from the administration of blood and/or blood components.
14	<b>Hernia</b>	Cuts in the abdominal wall can lead to hernias after surgery. Internal Hernia (twisting of the bowel) can occur after Gastric Bypass.
15	<b>Hair Loss</b>	Many patients develop hair loss for a short period after the operation. This usually responds to increased levels of vitamins.
16	<b>Vitamin and Mineral Deficiencies</b>	After Gastric Bypass, there is malabsorption of many vitamins and minerals. Patients must take vitamin and mineral supplements forever to protect themselves from these problems.
17	<b>Complications of Pregnancy</b>	Vitamin and mineral deficiencies can put the newborn babies of bariatric surgery mothers at risk. No pregnancy should occur for the first 18 to 24 months after the operation and patients must be certain not to miss any of their vitamins if they decide to go ahead with pregnancy later.
18	<b>Ulcers</b>	Patients undergoing Gastric Bypass may develop ulcers of the pouch, the bottom of the stomach or parts of the intestine. Ulcers may require medical or surgical treatment and have complications of chronic pain, bleeding and perforation and caused by smoking and NSAID use.
19	<b>Other</b>	Major abdominal surgery, including bariatric procedures, is associated with a large variety of other risks and complications, both recognized and unrecognized that occur both soon after and long after the operation.
20	<b>Depression</b>	Depression is a common medical illness and has been found to be particularly common in the first weeks after surgery.
21	<b>Alcohol Use Disorder</b>	These surgeries increase sensitivity to alcohol and some individuals develop problematic alcohol use afterwards. The best way to avoid this risk is to abstain from alcohol.
22	<b>Death</b>	1 in 1,000 or less chance of dying as a result of weight-loss surgery. Much lower for most than the risk of staying severely obese and less than gallbladder surgery.

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# Diet Phases and Recipes

## PHASE I

Sugar-free, clear liquids

Duration of Phase I: Approximately 1-3 days

### Important Considerations

- Phase I may begin once water is well tolerated.
- You may be on Phase I for 1-3 days or until tolerated or discharged from the hospital.
- Drink 1-3 ounces (1/8 to 3/8 of a cup) or as tolerated of sugar-free, clear liquids every hour.
- A clear liquid is defined as non-dairy fluids that cause a minimal amount of residue in the digestive tract
- Clear “solids” that become liquid at body temperature are also appropriate such as diet Jello® and sugar-free popsicles.
- No carbonated beverages.
- Drink decaffeinated clear liquids (for at least 3 months).
- No milk or dairy.
- No vitamin or mineral supplementation at this time.
- Sugar substitutes can be used (see list of sugar substitutes).

### Nutritional Considerations

- Consume at least 64 ounces of sugar-free, decaffeinated clear liquids per day.
- Check tolerance level.
- Stop drinking when you feel full.

### Examples Of Clear Liquids

- Water
- Crystal Light®, sugar-free Snapple®, sugar-free Kool-Aid®, etc.
- Plain decaffeinated tea (no milk or creamer)
- Plain decaffeinated coffee, black (no milk or creamer)
- Jello®
- Popsicles
- Clear flavored broth (chicken, beef, seafood, ham)

### Menu Sample

Morning: Decaffeinated coffee with Splenda® Breakfast: Low sodium chicken broth Midmorning: Crystal Light®

Lunch: Low sodium seafood broth

Mid-afternoon: Water

Dinner: Low sodium ham broth

Evening: Decaffeinated tea with Splenda®

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## Important Reminders When On Phase I

- Consume at least 64 ounces of sugar-free, decaffeinated, clear liquids per day.
- Check tolerance level.
- Stop drinking when you feel full.
- Sip slowly, do not gulp.
- Do not use a straw.
- Avoid extreme temperatures (extreme hot or cold).
- No carbonated beverages.
- No milk, cream or other dairy products.
- Consume decaffeinated clear liquids for at least 3 months after surgery.
- Remember to keep increasing physical activity as tolerated.

## Exercise - Sample Workout

### POST-OP AT HOME, WEEK 1

Walk 5-10 minutes, 3 times per day

### POST-OP, WEEK 2

EXERCISE	TIME	FREQUENCY	INTENSITY
Walk	20 Minutes	2 times/week	As tolerated
Strength Exercise	Do not start until medically cleared		

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## PHASE II

### Important Considerations

- Phase II may begin in the hospital if you tolerate Phase I or at home upon discharge.
- It is recommended that you stay on Phase II for a total of 2 weeks to ensure proper tolerance and healing.
- The goal is to consume at least 60 grams of protein per day in the form of a liquid, high protein shake.
- Consume no solid food at this time.
- Drink 4-8 ounces of protein shake 3 times per day (4-8 ounces or ½ to 1 cup for breakfast; 4-8 ounces or ½ to 1 cup for lunch; 4-8 ounces or ½ to 1 cup for dinner).
- Do not skip any meals.
- Stop drinking when you feel full.
- Consume sugar-free, non-carbonated, decaffeinated clear liquids in between shakes for a total of 64 ounces (8 cups) per day.
- Follow the “30-Minute Rule” to fluid intake: wait 30 minutes before and after your shake to drink other fluids.
- Vitamin or mineral supplementation as tolerated.

### Important Considerations About Protein Shakes

- Choose a High-Protein Shake that contains at least 20 grams of protein per serving.
- Choose a High-Protein Shake that contains less than 10 grams of sugar.
- The source of the protein should preferably be whey protein, however, shakes may be soy or egg based or a combination of whey, soy or egg.
- You may use skim or 1% milk or water to mix the protein shake if it is powder-based.
- You may use lactose-free milk if lactose intolerant.
- Do not use milk as a substitute for protein shakes since it does not provide enough protein per serving.
- Due to possible sensory changes in taste and smell, choose a variety of flavors or non-flavored protein shakes; always check for tolerance.

### Nutritional Considerations

- Consume at least 60 grams of protein per day in the form of a liquid, high-protein shake.
- Consume sugar-free, non-carbonated, decaffeinated clear liquids in between shakes for a total of 64 ounces (8 cups) per day.
- Consume no solid food at this time.
- Check tolerance level.
- Stop drinking when you feel full.

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## Menu Sample

Morning: Decaffeinated coffee with Splenda®

Breakfast: Protein shake with 20 grams of protein

Midmorning: 8 oz. Crystal Light

Lunch: Protein shake with 20 grams of protein

Mid-afternoon: 8 oz. chicken broth

Dinner: Protein shake with 20 grams of protein

## Important Reminders When On Phase II

- Consume at least 60 grams of protein per day in the form of a liquid, high protein shake.
- Consume sugar-free, non-carbonated, decaffeinated clear liquids in between shakes for a total of 64 ounces (8 cups) per day.
- Consume no solid food at this time.
- Check tolerance level.
- Stop drinking when you feel full.
- Sip slowly, do not gulp.
- Do not use a straw.
- Avoid extreme temperatures (extreme hot or cold).
- No carbonated beverages, no alcoholic beverages.
- Consume decaffeinated clear liquids for at least 3 months after surgery.
- Follow the “30-Minute Rule” to fluid intake. Wait 30 minutes before and after your shake to drink other fluids.
- Remember to keep increasing physical activity as tolerated.

## Exercise - Sample Workout

### POST-OP, WEEK 2

EXERCISE	TIME	FREQUENCY	INTENSITY
Walk	20 Minutes	2 times/week	As tolerated
Strength Exercise	Do not start until medically cleared		

# Hospital Post-Op

Soon after your return to your room after surgery, most patients will be able to sip water.

- Sip slowly, do not gulp.
- SIP SIP SIP
- Do not use a straw.
- If water is well tolerated with no nausea or vomiting, Phase I of the Bariatric Eating Plan may begin.

## Exercise

### POST-OP AT THE HOSPITAL

Walk in the room or around the hospital floor 4 to 5 times a day.

You will be given a daily hydration and activity log while in the hospital. Your surgeon and nursing staff will check this log during your post-op stay. Fill out the chart as you finish a medicine cup of water and with each walk.

## POST-OPERATIVE HYDRATION AND AMBULATION KIT





## PHASE III

Soft/Pureed, High-Protein Foods

Duration of Phase III: Approximately 6-8 weeks

### Important Considerations

- Phase III may begin 2 weeks after surgery if Phase II is well tolerated.
- It is recommended that you stay on Phase III for 6-8 weeks to ensure proper tolerance of solid, soft foods.
- Follow the “30-Minute Rule” to fluid intake: wait 30 minutes before and after your food to drink fluids.
- The goal is to consume at least 60-80 grams of protein per day in the form of soft or pureed high protein foods.
- Inadequate protein intake can lead to fatigue, loss of lean body mass and increase your risk of infection and other illnesses.
- Consume 3-4 ounces of protein 3 times per day (3-4 ounces for breakfast; 3-4 ounces for lunch; 3-4 ounces for dinner).
- As an estimate, 1 ounce of protein is approximately 7 grams. For example, if you consume 3 ounces of chicken, this would equal approximately 21 grams of protein.

SOME GOOD PROTEIN SUGGESTIONS ARE	
<b>Seafood</b>	Tuna, tilapia, grouper, soft flaky fish such as cod, haddock, sea bass - canned or fresh
<b>Shellfish</b>	Scallops, lobster, shrimp, crab - canned or fresh
<b>Dairy</b>	Low-fat, sugar-free or carbohydrate-controlled yogurt without visible fruit pieces Low fat cottage cheese, ricotta cheese, farmer’s cheese or other soft cheeses
<b>Eggs</b>	Eggbeaters®, egg whites or whole eggs (no more than 1 egg yolk per day): boiled, scrambled, baked, poached (avoid fried or undercooked eggs)
<b>Poultry</b>	Turkey, chicken, game hen, duck breast deli such as roast turkey breast or chicken breast - canned or fresh
<b>Legumes</b>	Black beans, kidney (red) beans, garbanzo beans, white beans, lentils etc. Hummus and pureed beans may be well tolerated.
<b>Tofu</b>	Tofu, Boca Burger® (without the bun), Morning Star Farms® soy products
<b>Meat</b>	Ham (red meat and pork may be difficult to digest; always check your tolerance level) Low sodium, rindless, no sugar added cold-cuts and deli meats - canned or fresh

## Important Considerations About Soft Or Pureed Proteins

- It is acceptable to add low-sodium broths or low-fat dressings to prepared protein sources to add moisture.
- Do not fry or put “breading” on the protein.
- Proteins should be moist and lean.
- Place food in a blender or food processor to create a soft/pureed consistency.
- Avoid soups.
- Lean red meat as tolerated.
- Avoid spicy foods.
- Avoid dried out, over-cooked meats; many patients find that they cannot tolerate chicken after surgery; always check your tolerance to any food.
- Introduce one “new” food at a time.
- Use moist cooking methods such as boiled, baked, sautéed, poached, stewed or braised (See definitions of cooking terms).
- Avoid frying protein foods.
- Always check for tolerance when trying a “new” food. Introduce solid food slowly.
- Even though food is soft and pureed, take small bites of food and chew food well (25 times).

## Exercise - Sample Workout

POST-OP, WEEK 3 TO 2 MONTHS

EXERCISE	TIME	FREQUENCY	INTENSITY
<b>Walk</b>	15-30 Minutes	4 times/week	Increase the time by 5 minutes every session until you are working continuously for 45 minutes per session.
<b>Strength Exercise</b>	May begin weight training with doctor’s approval. Add 2 days of light weight training as follows: Day 1: Upper body, 15-30 minutes Day 2: Lower body 15-30 minutes, as tolerated		

## EXERCISE - SAMPLE WORKOUT

POST-OP, BY 2 MONTHS TIME.

EXERCISE	TIME	FREQUENCY	INTENSITY
<b>Walk or start other cardio exercises; swimming, rowing, aerobics, stair climbing with surgeon’s approval.</b>	30-45 Minutes	5-6 times/week	Add a 3rd day of light weight training alternating upper and lower body, 15-30 minutes, as tolerated.

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## Nutritional Considerations

- You may continue to use protein shakes as a meal replacement if you find that you cannot consume enough protein.
- Do not skip meals; have 3 meals per day (breakfast, lunch and dinner).
- Consume sugar-free, non-carbonated, decaffeinated clear liquids in between soft/pureed high protein foods for a total of 64 ounces (8 cups) per day.
- Check tolerance level.
- Stop eating when you feel the sense of fullness.
- During Phase III, no breads, no cereals, no rice, no noodles, no pastas, no crackers, no potatoes (sweet or white), no yams, no corn, no plantain, no yucca, no fruits, no fruit juices, no vegetables, no carbonation, no caffeine, no alcoholic beverages.
- Continue vitamin and mineral supplementation - add in iron and calcium.

## Menu Sample

Morning: Decaffeinated coffee with Splenda® may be used; Wait at least 30 minutes after consuming fluids before eating protein foods  
Breakfast: 4 ounces of scrambled egg  
Midmorning: 8 oz Crystal Light®

Lunch: 3-4 ounces of pureed tuna fish made with 1 Tbsp of low fat mayonnaise

Mid-afternoon: 8 oz Crystal Light®

Dinner: 3-4 ounces of low-fat, low-sodium turkey deli slice

Evening: 8 oz Crystal Light®

## Important Reminders When On Phase III

- Even though food is soft and pureed, take small bites of food and chew food well (25 times) before you swallow.
- Stop eating or drinking when you feel full.
- Sip fluids slowly, do not gulp.
- Do not use a straw.
- Avoid extreme temperatures (extreme hot or cold).

## Phase III Breakfast Ideas

- Protein shakes are a fine way of getting in some of your daily protein intake and may be more convenient to consume for breakfast.
- Low fat, carbohydrate-controlled or sugar-free, yogurt.
- Low fat, cottage cheese, farmer's cheese or ricotta cheese.
- Low fat string cheese.
- Eggs, whole, egg whites or Egg Beaters®; Eggs may be scrambled, baked, poached or made into an omelet.
- For example, if you are in Phase III and you make an omelet, you can add cheese and ham but no vegetables.
- For example, if you are in Phase IV and you make an omelet, you can add cheese, ham and mushrooms (or other vegetable).
- Low fat turkey or tofu breakfast sausage; bake or microwave them; don't fry them.
- Low fat, tofu hot dogs.
- You may also consume lunch/dinner foods for breakfast! Always check your own personal food tolerances and preferences.

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### Phase III Lunch/Dinner Ideas

- Grilled, baked, poached seafood/shellfish (any type that you can tolerate); do not fry or bread the seafood.
- Whitefish, tilapia, grouper, orange roughy, flounder, sole, snapper, catfish, perch, herring, swordfish, halibut, cod, sea bass, salmon, scallops, shrimp, lobster, crab, etc.
- Egg salad, tuna salad, crab salad, chicken salad (light mayonnaise or light salad dressing is okay, but no relish, celery or onion unless you are in Phase IV of the Penn Highlands diet protocol).
- Grilled, baked, poached, braised or sautéed poultry such as chicken, Cornish game hen, turkey or duck.
- Legumes (black beans, navy beans, pinto beans, Northern beans, white beans, etc); these can easily be made into a “dip” or a hummus or they can be baked or added to chili.
- Grilled Tofu burgers.
- Deli meats such as turkey, chicken, ham, etc. Don’t eat the deli “rind.” Choose low sodium deli and those that do not have added sugars. You can create a deli roll-up and roll a piece of cheese in the middle.
- Baked, crustless cheese quiche.
- Turkey or tofu meatballs.
- Low fat cheese fondue.
- Plain turkey or tofu meatloaf (use eggs or milk to bind it together).
- Egg and cheese frittata.
- Follow the “30-Minute Rule” to fluid intake: wait 30 minutes before and after your food to drink fluids.
- Remember to keep increasing physical activity as tolerated.

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## Phase III Recipes

### Baked Eggs with Cheese (Serves 4)

#### INGREDIENTS:

4 large eggs

¼ cup low fat cheddar cheese

¼ cup skim or 1% milk

1 teaspoon of non hydrogenated margarine or olive oil

1. Preheat the oven to 350 degrees F.
2. Crack 1 egg individually into 4 small baking ramekins.
3. Add ¼ cup of milk to each ramekin.
4. Top with cheese.
5. Bake until egg is set and the internal temperature of the yolk is 165 degrees F.

### Egg, Cheese and Ham Frittata (Serves 8)

#### INGREDIENTS:

8 large eggs

8 slices of low sodium deli ham, chopped

½ cup shredded cheddar cheese

¼ cup water Salt and pepper to taste Pam® cooking spray oil

1. Spray a light coating of Pam cooking spray oil on the bottom of a skillet.
2. Heat the chopped ham through and then transfer to a plate.
3. Separate the eggs, placing the yolks in a medium size bowl and the egg whites in another bowl.
4. Mix the egg yolks with the water and beat until fluffy.
5. Beat the egg whites until they are foamy and stiff.
6. Fold the egg yolks into the egg white.
7. Re-spray your skillet with Pam cooking spray oil and put skillet on low heat.
8. Pour in the egg mixture and spread evenly over the bottom of the skillet.
9. Sprinkle the ham and cheese over the top of the mixture.
10. Cover and cook until the eggs are cooked through and fluffy, approximately 25 minutes.

### Baked Cod Fish with Lemon and Olive Oil (Serves 4)

#### INGREDIENTS:

4 cod fillets, approximately 4 ounces each

1 Tablespoon freshly squeezed lemon juice 1

Tablespoon olive oil

¼ cup garlic powder

½ teaspoon dried thyme

¼ sweet paprika

1. Preheat the oven to 400 degrees F.
2. Arrange the fish in a baking dish.
3. Drizzle fish with lemon juice and olive oil.
4. Sprinkle with garlic powder, dried thyme and paprika.
5. Bake until fish is opaque and juicy.
6. Spoon pan juices over top and serve.

### Baked Whole Fish in Foil

(Serves 1 to 2 depending on fish size)

#### INGREDIENTS:

1 whole fish such as snapper, trout, orange roughy, cleaned and washed

1 lemon, sliced Juice of 1 fresh lemon

¼ teaspoon dried parsley ¼ teaspoon dried thyme 1  
tablespoon of olive oil

Aluminum foil and roasting pan

1. Preheat oven to 400 degrees F.
2. Line roasting pan with aluminum foil and add fish.
3. Sprinkle fish with olive oil, parsley and thyme.
4. Place lemon slices on top of fish.
5. Pour fresh lemon juice over fish.
6. Cover and cook in oven until cooked, approximately 20-25 minutes depending on thickness of fish.

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## Phase III Recipes Continued

### Banana Flavored Protein Shake (Serves 1)

#### INGREDIENTS:

1 cup plain, low fat yogurt 1 cup lactose free skim milk  
1 teaspoon banana extract (found in the spice section of  
supermarket)

1 package of unflavored whey protein powder

Ice cubes

1-2 packets of sugar substitute like Splenda® or  
NutraSweet®

1. In a blender, combine, ice cubes and milk and whiz until ice is thoroughly crushed.
2. Add the yogurt, banana extract and whey protein powder into the blender.
3. Stir all together until thick and frothy.
4. Drink slowly.

### Mint-infused Black Tea

#### INGREDIENTS:

1 quart of water

3 bags of decaffeinated Darjeeling, Oolong or Black tea

3 tablespoons of coarsely chopped fresh mint, spearmint  
or peppermint

1-2 packets of sugar substitute

1. Boil water in saucepan.
2. Add the tea bags, chopped mint and sugar substitute.
3. Steep for 3-5 minutes.
4. Strain into mugs.
5. Drink slowly.

## Cooking Terms

- Roasting: Food is placed in a hot oven and the food is surrounded by hot, dry heat.
- Grilling: Food is placed over a heat source, that is open to air.
- Barbecuing: A combination of covered grilling and smoking.
- Broiling: Food is placed under a heat source, such as the broiler setting of the oven.
- Braising: Simmering foods in a small amount of fluid.
- Poaching: Immersing foods in a fluid that is heated to a gentle simmer, but not boiled.
- Sautéing: Placing food in a hot pan to quickly brown and cook food.
- Steaming: Similar to poaching, except that the fluid is usually water and in the form of gas.
- Boiling/Blanching: Cooking food in hot water.
- Bake: To cook food, uncovered in an oven with a small amount of liquid or fat.

COOKING MEASUREMENT CONVERSIONS	
1/4 Tsp = 1ml	1 oz = 30g
1/2 Tsp = 2 ml	2 oz = 60g
1 Tsp = 5 ml	4 oz = 1/4 lb = 115g
1 Tbsp = 15ml = 3 tsp	8 oz = 1/2 lb = 230g
2 Tbsp = 30ml = 1oz	12 oz = 3/4 lb = 340g
1/4 cup = 120ml = 2oz	16 oz = 1 lb = 455g
1/2 cup = 120ml = 4oz	2.2 lbs = 1 kg
3/4 cup = 180ml = 6oz	
1 cup = 240ml = 8oz	

ESTIMATE OF STANDARD PROPORTIONS	
HOUSEHOLD ITEMS	SIZE (APPROXIMATE)
Tip of thumb to the first joint	1 teaspoon (tsp) = 5ml
Golf ball	1 tablespoon (Tbsp)
Computer mouse	12oz = 3/4 lb = 340g
Match Box	2.2 lbs = 1 kg
CD disc	1 ounce slice
2 Dominoes	1 ounce
Tube of lipstick	1 ounce
Deck of poker cards	3 ounces
Tennis ball	2/3 cup, "medium" size fruit

These are approximate measurements.

For accurate measurements, use standard measuring utensils.

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## PHASE IV

High Protein Foods, Added Vegetables

Duration of Phase IV: Until you reach goal weight or at the instruction of our registered dietitian.

### Important Considerations

- Phase IV may begin once Phase III is well tolerated, but not before 2 months post-surgery.
- The goal is to consume at least 60-80 grams of protein per day with the addition of adding vegetables.
- Inadequate protein intake can lead to fatigue, loss of lean body mass and increase your risk of infection and other illnesses.
- Consume 3-4 ounces of protein 3 times per day (3-4 ounces for breakfast; 3-4 ounces for lunch; 3-4 ounces for dinner).
- As an estimate, 1 ounce of protein is approximately 7 grams. For example, if you consume 3 ounces of chicken, this would equal approximately 21 grams of protein.
- Always eat your protein foods first before eating the vegetable.
- Do not begin eating your vegetable first. Vegetables contain little or no protein and protein is essential.
- Continue to consume sugar-free, non- carbonated, decaffeinated clear liquids in between high protein foods for a total of 64 ounces (8 cups) per day.
- Follow the “30-Minute Rule” to fluid intake: wait 30 minutes before and after your food to drink fluids.

### Important Considerations About Adding Vegetables

- When incorporating vegetables, it is recommended that you begin with softly cooked vegetables first.
- Avoid vegetables that do not become soft when cooked.
- Avoid fibrous stalks like those found in asparagus, broccoli, celery, stalks of romaine lettuce, kale, etc.
- Be cautious of seeds and peels.
- You may introduce raw vegetables only after you can tolerate a variety of cooked vegetables.
- Remember to always check for food tolerance.
- Slowly increase your variety of choices only after you know that you can tolerate it.
- When eating raw vegetables, it is recommended that you first try softer vegetables such as broccoli florets, Bibb lettuce, red-leaf lettuce or Boston lettuce.
- Remember to chew vegetables thoroughly (chew 25 times) and swallow only when chewing has made it into a “mushy” pureed consistency.
- If you have trouble with gas, avoid eating gas-producing vegetables such as onions, cauliflower, garlic, scallions, leeks, Brussels sprouts and cabbage.
- Avoid starchy vegetables such as potatoes (sweet and white), yams, yucca, plantain and corn at this time.
- Continue with vitamin and mineral supplementation.



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## Nutritional Considerations

- Stop eating or drinking when you feel the sense of fullness.
  - During Phase IV, no breads, no cereals, no rice, no noodles, no pastas, no crackers, no potatoes (sweet or white), no yams, no corn, no plantain, no yucca, no fruits, no fruit juices, no carbonation, no caffeine, no alcoholic beverages.

## Menu Sample

Morning: Decaffeinated coffee with Splenda® may be used; Wait at least 30 minutes after consuming fluids before eating protein foods  
Breakfast: 4 ounces Eggbeaters® omelet with sautéed mushrooms, scallions and cheese

Midmorning: 8 oz Crystal Light®

Lunch: 1 Boca Burger®, steamed broccoli  
Mid-afternoon: 8 oz Crystal Light®  
Dinner: 3-4 ounces baked tilapia fish, steamed cauliflower florets

Evening: 8 oz Crystal Light®

## Exercise - Sample Workout

POST-OP, MONTH 2

EXERCISE	TIME	FREQUENCY	INTENSITY
<b>Walk or start other cardio exercises; swimming, rowing, aerobics, stair climbing with surgeon's approval.</b>	30-45 Minutes	5-6 times/week	Add a 3rd day of light weight training alternating upper and lower body, 15-30 minutes, as tolerated.

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## PHASE V

High-Protein Foods, Added Complex Carbohydrates in the Form of Whole Grains, Starchy Vegetables and Fruit  
Duration of Phase V: Lifetime

### Important Considerations

- Phase V may begin once you have reached 75% of your Excess weight-loss (EWL) or at the discretion of your registered dietitian. This may take anywhere from 6-12 months or longer after surgery.
- For example, if your excess weight is 100 lbs and you lose 75 lbs, you may add complex carbohydrates back into your meal plan.
- If you are unsure when to add complex carbohydrates back into your meal plan, please consult with the doctor or dietitian.
- The goal remains to consume at least 60-80 grams of protein per day with the addition of vegetables, fruit and complex carbohydrates.
- Inadequate protein intake can lead to fatigue, loss of lean body mass and increase your risk of infection and other illnesses.
- Consume 3-4 ounces of protein 3 times per day (3-4 ounces for breakfast; 3-4 ounces for lunch; 3-4 ounces for dinner)
- As an estimate, 1 ounce of protein is approximately 7 grams. For example, if you consume 3 ounces of chicken, this would equal approximately 21 grams of protein.
- Always eat your protein foods first before eating the vegetable, fruit or complex carbohydrate.
- Do not begin eating your complex carbohydrate first. They contain little or no protein and protein is essential.
- Continue to consume sugar-free, non- carbonated, decaffeinated clear liquids in between high protein foods for a total of 64 ounces (8 cups) per day.
- Follow the “30-Minute Rule” to fluid intake: wait 30 minutes before and after your food to drink fluids.

### Important Considerations About Complex Carbohydrates

- Complex carbohydrates are found in whole grains, fruits, legumes and vegetables.
- Up until Phase V, you may have been eating legumes and vegetables. Now you may consider whole grains, starchy vegetables and fruit.
- When incorporating complex carbohydrates, it is recommended that you begin with peeled fruit, either cooked or raw.
- No added sugar or syrup canned fruit is acceptable.
- Remember to always check for food tolerance.
- Slowly increase your variety of choices only after you know that you can tolerate it.
- Fruit juice and sweetened beverages are not recommended.
- Avoid white flours, rice, pastas or breads that are “doughy” or “gummy”. These are hard to tolerate.
- When choosing whole grains, choose 100% whole wheat, 100% multigrain. These are packed with fiber, vitamins and minerals.
- Limit complex carbohydrates and remember to always consume your protein first.

## Nutritional Considerations

- You may continue to use protein shakes as a meal replacement if you find that you cannot consume enough protein.
- Do not skip meals; have 3 meals per day (breakfast, lunch and dinner).

COMPLEX CARBOHYDRATES	
TYPE	EXAMPLE
<b>Cereals and Grains</b>	<ul style="list-style-type: none"> <li>• Amaranth, bran, barley, brown rice, bulgur, buckwheat, cornmeal, grits, kasha, kamut, millet, muesli, oats, quinoa, rye, semolina, 100% whole wheat, wheat germ and wild rice.</li> <li>• When choosing a cereal, choose one that has less than 5 grams of sugar per serving and has at least 5 grams of fiber per serving.</li> </ul>
<b>Breads, Crackers, Pitas, Tortillas, Pastas and Rice</b>	<ul style="list-style-type: none"> <li>• Look for 100% whole grain, stone-ground, multigrain or 100% whole wheat breads, crackers and pastas. Ezekiel and Spelt breads, Arnold's Whole grain Classic, Pepperidge Farms Whole Grain.</li> <li>• Crackers such as Wasa, Ryvita, Kalvi and Kasi brands.</li> <li>• Pastas such as Ronzoni Healthy Harvest, Barila Plus, Mueller's Whole Grain.</li> <li>• Rice brands such as: Tex-Mex brown rice, Eden Foods whole grain rice, Lundberg's brown rice, Success whole grain brown rice and Uncle Ben's brown or wild rice.</li> </ul>
<b>Starchy Vegetables</b>	<ul style="list-style-type: none"> <li>• Corn, peas, plantain, potato (sweet or white), yams, squash or yucca.</li> </ul>
<b>Legumes and Beans</b>	<ul style="list-style-type: none"> <li>• Soybeans (edamame), lentils, peas. Beans such as black, red, white, navy, northern, kidney or lima. Soak dried beans over night to reduce gas production.</li> </ul>
<b>Vegetables</b>	<ul style="list-style-type: none"> <li>• Use fresh or frozen without added sauces, cheese or gravies.</li> <li>• Good examples of vegetables are: broccoli and cauliflower florets, tender green beans, soft yellow squash, zucchini, soft eggplant, cucumbers, soft asparagus, Brussels sprouts, carrots, parsnips, rutabaga, beets, snow peas, plantain, potato (sweet or white), yams, yucca, sweet leeks, scallions, shallots, onions, green beans, peas, corn, lettuce, creamed spinach, kale, collards, cabbage, legumes, squash, mushrooms, peppers, tomatoes, herbs like parsley, basil, thyme and sage. l</li> <li>• If using canned, choose low sodium and rinse under cool water.</li> <li>• Avoid tough stalks and vegetables that are too fibrous or hard to chew.</li> <li>• If experiencing gas, avoid onions, garlic leeks, cabbage, broccoli, cauliflower and other gas producing vegetables.</li> </ul>
<b>Fruits</b>	<ul style="list-style-type: none"> <li>• Use fresh or frozen without added sugar, syrup or cream.</li> <li>• Always wash your fresh fruit under cool running water. Peel fresh fruit.</li> <li>• Good examples of fresh fruit are: peaches, apples, nectarines, plums, cherries, strawberries, apricots, blueberries, melons, bananas, grapes, figs, papaya, mangos, avocados, pears, persimmons.</li> <li>• Avoid fruit that is too fibrous or hard to chew such as coconut and the rind of the orange.</li> <li>• It's recommended that you peel fresh fruit before eating. Use caution when eating fruits with seeds or pits.</li> <li>• If using canned fruit, choose sugar-free or no sugar added and syrup.</li> </ul>

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## Caffeine - A Little Can Be Too Much

The recommended intake of caffeine is defined as 300 milligrams or no more than three 8 ounce cups of coffee per day.

However, it is best to AVOID caffeine after bariatric surgery. For every 8 ounces of caffeine you drink, you would have to add an additional 8 ounces of a non-caffeinated beverage. If you continue to drink caffeine after surgery, it will be very difficult for you to meet your fluid goals.

If your diet contains a large amount of caffeine, you should decrease your intake gradually to prepare for surgery. This will help to avoid headaches caused by caffeine withdrawal.

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# After Weight-loss Surgery

## Expectations upon discharge from the hospital

Once you are discharged from the hospital, you will follow-up with your surgeon for post-op visits at

- Two weeks
- One month
- Two months
- Three months
- Six months
- One year

There will also be follow-up visits with your PCP, nutritional counseling, and other specialty services as necessary.

Bariatric support group meetings are scheduled on a monthly basis. We highly recommend attending as many support group sessions as possible. Support groups are a great opportunity for patients to gain knowledge, network with other bariatric surgery patients, and obtain the necessary support to be successful through your health and wellness journey. Support groups have been proven to affect the long-term success of weight-loss goals and optimize the Bariatric Surgery Program. A calendar of support group meetings and events will be provided by your Bariatric Surgeon's clinic staff. We look forward to your attendance at these sessions and continuing to watch you successfully progress through your journey.

# Potential Problems

POSSIBLE OCCURRENCE	MAY BE CAUSED BY	POSSIBLE SOLUTION
Constipation	Having a bowel movement every 3 days after surgery is a normal occurrence. Constipation may also be caused by less total food intake, inadequate fluid intake, high protein, low fiber intake. Some vitamins, minerals or medications may also cause constipation. Inactivity may lead to constipation.	Stay well hydrated. Fluid intake should be at least 64 ounces per day. If constipated, try to increase fluid intake with an additional 8-10 cups per day. Continue eating proteins and taking vitamins, minerals and medications as directed. You may use over the counter laxatives, fibers or stool softeners such as Milk of Magnesia®, Benefiber®, Metamucil®, Senokot® or Colace®. If constipation persists, contact your physician.
Dumping Syndrome	This may be caused by high sugar intake after gastric bypass procedure.	Avoid sugars, fried foods and high-fat foods. Stay well hydrated. Fluid intake should be at least 64 ounces per day.
Diarrhea	This may occur during the liquid protein phase of your diet plan. Diarrhea may also be caused by low fiber intake, lactose intolerance, food allergy, high sugar or fat in-take or food borne illness.	Stay well hydrated. Fluid intake should be at least 64 ounces per day. Switch to lactose-free milk, always check for food tolerances. Limit sugar intake to no more than 5 grams per serving. Avoid fried food and high fat. Do not eat food that you are allergic to. Always cook, cool and store your food appropriately to avoid food spoilage and food borne illness. Using bulking fibers such as Benefiber® may help.  If diarrhea persists, contact your physician.
Vomiting	This may be caused by eating too fast, not chewing well, swallowing large pieces of food, a food intolerance or food borne illness, or overeating. If vomiting persists, this may be due to a stricture or stenosis. Call the office to make an appointment with the physician.	Cut food into small pieces and chew at least 25 times before swallowing. Swallow food only after it has been made “mushy” in your mouth. Always check for food tolerances.  Stop eating the food which makes you vomit. Always cook, cool and store your food appropriately to avoid food spoilage and food borne illness. Don’t overeat. If vomiting persists, contact your physician.

POSSIBLE OCCURRENCE	MAY BE CAUSED BY	POSSIBLE SOLUTION
Nausea	Having nausea is a common occurrence after surgery. This feeling is not permanent. Food intolerances, dehydration or sensory changes may also cause feelings of nausea. Some vitamins and minerals may cause nausea.	Stay well hydrated. Fluid intake should be at least 64 ounces per day. Always check for food tolerances. Avoid extreme temperatures of hot and cold. This may trigger nausea. Do not skip meals, vitamins and minerals. You can also try medications like Zofran, which your surgeon will prescribe if needed. If nausea progresses into vomiting, see above.
Pain After Eating or Drinking	This may be caused by eating too fast, not chewing well and swallowing large pieces of food. Pain may also be caused by overeating or drinking carbonated or caffeinated beverages. If pain persists, call the office to make an appointment with the physician.	Cut food into small pieces and chew at least 25 times before swallowing. Swallow food only after it has been made “mushy” in your mouth. Stop eating when you feel the sense of fullness and restriction. Do not overeat. Avoid all carbonated and caffeinated beverages.
Gas	This may be caused by eating too fast, drinking carbonated beverages, or eating gas-producing foods such as legumes (beans), broccoli, onions, cabbage or Brussels sprouts.	Slow down. Do not eat fast. Avoid all carbonated beverages. Soak beans in cool water overnight to reduce gas-producing enzymes in legumes. Temporarily avoid gas-producing vegetables. You may take anti- gas medications such as Beano® or Mylicon®.
Vitamin or Mineral Deficiency	This may be caused by malabsorption of nutrients and not taking the recommended types, dosage or timing of the recommended vitamin and mineral regimen.	Adhere to the recommended vitamin and mineral protocol. Have your blood work done so the physician and nutritionist can assess your vitamin and mineral levels. If you have any questions about vitamins and minerals, contact your physician or nutritionist.
Sensory Changes (Taste and Smell)	This is common after surgery. Although the physiological mechanism is unknown, sensory changes may be exacerbated by strong food odors, spicy foods or extreme temperatures of hot or cold.	Do not skip meals and stay well hydrated with alternative food selections.
Lactose Intolerance	This is common in patients who have had surgery. Lactose intolerance means that you cannot digest the lactose found in milk and dairy products. Lactose is a natural sugar found in milk.	This is common in patients who have had surgery. Lactose intolerance means that you cannot digest the lactose found in milk and dairy products. Lactose is a natural sugar found in milk.

# MEAL PREPPING GUIDE

## *Penn Highlands Bariatric and General Surgery*

### PICK A DAY DURING THE WEEK YOU CAN TAKE TIME TO MEAL PREP

- Be flexible with days as long as they're not too far apart.
- Try not to schedule on an already busy day — this becomes too overwhelming and it may be the one task that doesn't get done.

### ENSURE THAT YOU HAVE THE PROPER STORAGE CONTAINERS FOR MEAL PREPPING

- Use containers with portion sizes or individual portion-sized containers.
- When prepping salads, have a deep enough container where you can stack the items on top of each other or section them off.
- Use containers with separate sections for different food items.
- Pack snack items in small baggies; i.e., nuts, berries, veggies, etc.
- Pack meals in a soft side lunch bag, hard lunch box or travel cooler.

### PRIOR TO MEAL PREP DAY, SELECT RECIPES OR HAVE IDEAS OF WHAT MEALS YOU WANT TO PREP

- What meals will you be prepping? Breakfast, lunch, dinner, snacks?
- Think of the week ahead when determining meal choices; for example, easier meals for busy days, easily heated or cold food items.
- How many meals will you need for your week?
- Any upcoming events scheduled – how will you navigate through these events?

### GROCERY SHOP FOR ITEMS NEEDED

- Try not to go grocery shopping when you are hungry.
- Select a day and time to grocery shop where you will not be rushed and are able to make healthy choices, read labels, explore new items, etc.
- Make a list – items get forgotten when they're not on the list
- Stick to the list.
- Don't forget garnishes for flavor.



### GROCERY SHOPPING FOR FAMILY

- Everyone has different tastes and may not be eating the foods you like or need to meal prep. Do it for yourself anyway!
- Your meal prepping will result in other family members making better choices.
- Think about quick and easy recipes you can make for your family that won't seem overwhelming or as if you're cooking two separate meals for you and your family.

### PREPARE YOUR MEALS ONE RECIPE AT A TIME

- Don't overwhelm yourself with too many difficult recipes or choices.
- If necessary, meal prep twice each week rather than just one day.
- Meal prepping will become easier and less timely as you progress.
- Once meals are made, separate them out in daily portion sized containers and refrigerate.
- Don't forget to portion out daily healthy snacks.



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# Notes



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