

My Guide to Success

Vista Health System



Vista Health System

Weight Loss Surgery Program

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Welcome

Thank you for choosing Vista Health's Weight Loss Surgery Program and congratulations on taking to steps to a healthier you. You have selected a tool for managing your weight and you now have a lifelong plan to help you reach and maintain your goal weight.

Bariatric surgery is only one step in treating obesity, you will also need to modify the foods you eat and change your lifestyle habits permanently to achieve and maintain weight loss. Prior to surgery you should work on developing proper eating habits, including your relationship with food; after surgery you need to adhere to the diet recommendations in each stage.

Purpose of the Guidebook

This guidebook covers several important topics: Nutrition and weight loss expectations prior to surgery, stages of the post-op diet, potential complications, and maintaining a healthy lifestyle. Eating the right foods, exercising, setting goals, taking supplements, and following up with medical care and support groups are essential for your success and recovery.

Remember, this is a guide: your surgeon, primary care doctor, dietitian, exercise physiologist, pharmacist and psychologist may add to or change the recommendations to best meet your individual needs. Always use their suggestions, asking questions if you are unsure of what to eat, how often to exercise, or any medical issues you might have.

Using the Guidebook

- Use the Preoperative Checklist and check off as you complete each section; follow these steps in order.
- Read through this guide several times before surgery. This will help you feel more confident and prepared.
- Bring your guidebook to all your appointments including doctor office visits, dietary consults, exercise evaluations, and psychological assessments.

Vista Bariatric Surgery - Pre-Op Checklist

| 13 Pre-Op Steps | | <input checked="" type="checkbox"/> | Instructions |
|-----------------|--|--|--|
| Step 1 | Attend Online Seminar | <input type="checkbox"/> | For more information please go to www.vistahealth.com/wmo |
| Step 2 | Make the commitment. | <input type="checkbox"/> <input type="checkbox"/> | I have stopped smoking or do not smoke. Please contact Tobacco Free Lake County (847)377-8090 for help. I will show dedication to getting surgery by attending all of my appointments. |
| Step 3 | Contact your insurance company to verify that bariatric surgery is a covered benefit. | <input type="checkbox"/> | Before you make the appointment with your surgeon you need to check with your insurance company if there are any special requirements or limitations: <ul style="list-style-type: none"> You may need to lose weight prior to surgery as determined by insurance or your surgeon You may need to participate in ongoing weight management with your physician or a registered dietitian. |
| Step 4 | Schedule your consultation with the surgeon. | <input type="checkbox"/> | Call: Dr Aaron Siegel (847)856-2525 1 S Greenleaf St. Suite A Gurnee, IL Appointment Date: _____ Time: _____ |
| Step 5 | Schedule your initial pulmonology appointment. If you scored a 3 or above on your sleep apnea questionnaire, you will need to have a consult with a pulmonologist. | <input type="checkbox"/> | Call: Pulmonology Clinic Please see referral for location, this is based on which organization your health insurance accepts Note: Your insurance will be billed for this visit. Appointment Date: _____ Time: _____ |
| Step 6 | Schedule your nutrition evaluation with the Dietitian. Expect to have a minimum of 3 one-on-one appointments with the dietitian. | <input type="checkbox"/> | Call: Janine Pruett, MS RDN LDN (847) 360-2439 jpruett@qhcus.com Vista Medical Center East 1324 North Sheridan Road, Waukegan IL Note: Your insurance will be billed for this visit. If your insurance does not cover the nutrition appointments you will be charged at the point of service. Appointment Date: _____ Time: _____ |

Continued on following page

Vista Bariatric Surgery - Pre-Op Checklist

| 13 Pre-Op Steps | | ☑ | Instructions |
|-----------------|---|--------------------------|--|
| Step 7 | Schedule your exercise / fitness evaluation. | <input type="checkbox"/> | <p>Call: Stacey Van Zeyl, MS ATC (847) 356-4759 svanzeyl@qhcus.com Vista Ambulatory Care Center 1050 Red Oak Lane, Lindenhurst, IL</p> <p>Note: \$70 is due at the time of the evaluation. Evaluation is not covered by insurance Optional but encouraged post-op eval is \$30</p> <p>Appointment Date: _____ Time: _____</p> |
| Step 8 | Schedule your psychological evaluation. Must be completed after two nutrition consults and one exercise evaluation. Must be performed by a Licensed Clinical Psychologist. | <input type="checkbox"/> | <p>Call: Dr. Robbie Maller-Hartman (847) 356-4763 rhartman@qhcus.com Vista Ambulatory Care Center 1050 Red Oak Lane, Lindenhurst, IL</p> <p>Notes: Co-pays may apply. If you already see a counselor, you will be asked to sign a release of medical information.</p> <p>Appointment Date: _____ Time: _____</p> |
| Step 9 | Attend a support group. | <input type="checkbox"/> | <p>Support groups are on Zoom, please email vistawmo@amhealthsystems.com</p> <p>It is recommended that you attend one session prior to surgery and continue to attend for 1 year after surgery. Insurance will often request proof of your attendance.</p> |
| Step 10 | Complete all required pre-operative testing. | <input type="checkbox"/> | <p>Additional testing may include: lab work, sleep studies, cardiac and pulmonary clearances, tobacco, drug, and alcohol testing, colonoscopy, and endoscopy.</p> |
| Step 11 | Schedule a second visit with your surgeon. | <input type="checkbox"/> | <p>Appointment Date: _____ Time: _____</p> |
| Step 12 | Schedule medication phone consultation with the pharmacist. You <i>may</i> need to discontinue some medications prior to surgery and after surgery you will need to know which medications you can crush or get in liquid form. | <input type="checkbox"/> | <p>Call: Pharmacy (847) 360-4214</p> <p>Appointment Date: _____ Time: _____</p> |
| Step 13 | Schedule physical exam and lab work with your primary care physician. | <input type="checkbox"/> | <p>Must be completed 10-15 days prior to surgery You must have clearance from your doctor before you can be scheduled for surgery.</p> <p>Appointment Date: _____ Time: _____</p> |

Overview of Procedures and Surgeries

All bariatric procedures restrict the size of the stomach, allowing for early satiety (fullness) and weight loss from reduced calorie intake.

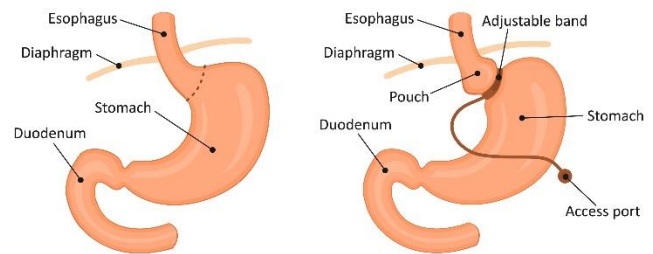
Non-Metabolic Procedures:

Gastric Banding (ex: Lap Band®)

The gastric band is an option for some individuals with less weight to lose. However, due to the band being a foreign object in the body, the band is prone to erosion, leaking of the saline solution, and band slippage.

Procedure: An adjustable band is placed around the top of the stomach, reducing the capacity of the stomach, thereby reducing food intake. The band is tethered to tubing attached to a port that is placed just under the skin. The port provides access for saline to be injected in small amounts over time to allow for adequate restriction of food intake by filling the balloon inside the band. Adjustments are completed as necessary to adjust the volume of food intake, ensure food tolerance, and help patients feel full sooner and stay full longer.

ADJUSTABLE GASTRIC BAND (AGB)



Gastric Balloon (Ex: Orbera®)

The gastric balloon is another option for some individuals with less weight to lose. However, the balloon is not typically covered under health insurance. Since the balloon is a foreign object, it may spontaneously deflate (leak) and cause gastric obstruction (block the stomach from emptying) or cause small bowel obstruction. Many patients have experienced persistent nausea and reflux, although less common, the balloon may also cause gastric ulcers.

Procedure: A balloon is implanted into the stomach through the mouth using an endoscope. The balloon is then filled with saline or air to fill the space in the stomach, giving the patient the feeling of fullness with less food. The implant is intended to be temporary.

GASTRIC BALLOON



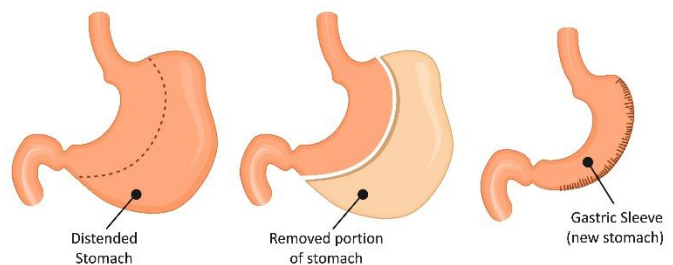
Metabolic Procedures:

Sleeve Gastrectomy:

In this laparoscopic (non-invasive) procedure approximately 75-80% of the stomach is removed, leaving what resembles a “sleeve” approximately the size and shape of a banana. There is no “rerouting” of the intestines, therefore no malabsorption of nutrients.

It is a purely restrictive operation like the band, but generally produces weight loss more like that of a gastric bypass because the stomach can only hold approximately 6 ounces of food. Additionally, by removing the portion of the stomach that produces most of the “hunger hormone”, the surgery decreases hunger and increases feelings of fullness.

VERTICAL SLEEVE GASTRECTOMY

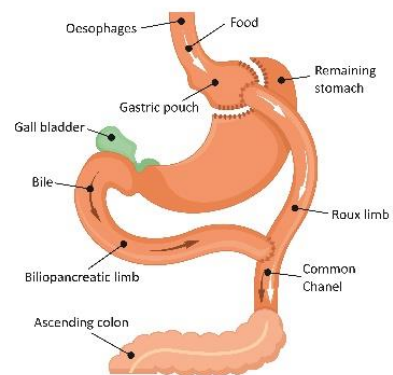


Roux-en-Y Gastric Bypass Surgery:

In this laparoscopic procedure the stomach is divided into two parts, thereby creating a small pouch which is the new stomach (about the size of an egg) and a larger pouch. The small intestine is detached 10 inches below the larger pouch and is attached to the new stomach pouch, carrying food from the pouch to the remaining intestines. The portion of the small intestine that is still attached to the larger pouch, is then reattached further down the new tract. This ‘limb’ carries the digestive enzymes to the food to help with digestion and absorption of nutrients.

The new stomach can hold approximately 1 ounce of food initially. Fluids should not be consumed with food and need to be low in calorie and sugar free to prevent them from exiting the stomach too quickly, causing ‘dumping syndrome’.

ROUX-EN-Y GASTRIC BYPASS (RNY)



Biliopancreatic Diversion with Duodenal Switch:

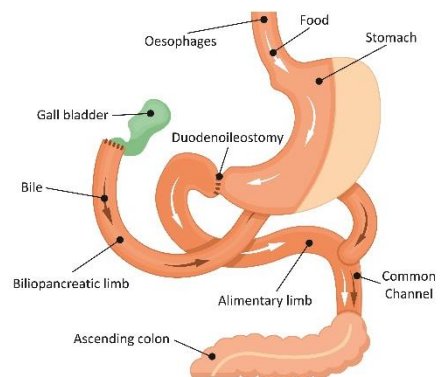
Often referred to as the Duodenal Switch or DS

This procedure provides greater weight loss for those who have a Body Mass Index (BMI) greater than 50 or for those who have poor blood sugar control and provides the greatest changes in metabolism compared to the standard gastric bypass (Roux-en-Y) or the sleeve. This surgery is sometimes a secondary procedure after insufficient weight loss from a sleeve gastrectomy.

In this procedure approximately 75-85% of the stomach is removed laparoscopically similar to a sleeve gastrectomy. The stomach is then connected to the last 8 feet of small intestine. The remainder of the small intestine is connected about 2.5-5 feet from the end of the small bowel, forming a common channel where food mixes with the digestive enzymes.

Like the sleeve gastrectomy, the stomach can hold 6 ounces of food, however due the rerouting of intestines, this procedure results in significant intestinal malabsorption of protein, calories, and micronutrients.

BILIOPANCREATIC DIVERSION WITH A DUODENAL SWITCH (BPD-DS)



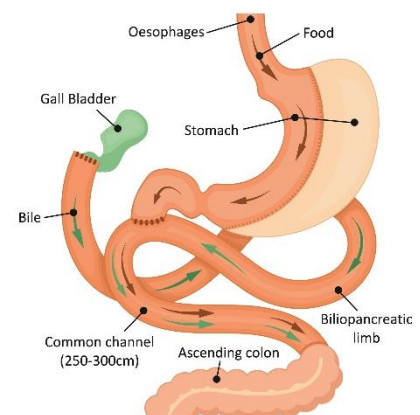
Single-anastomosis duodeno-ileostomy with Sleeve (SADI-S)

This procedure provides greater weight loss for those who have a BMI greater than 50 or for those who have poor blood glucose control and provides the greatest changes in metabolism compared to the standard gastric bypass (Roux-en-Y) or the sleeve

This procedure also removes approximately 75-85% of the stomach laparoscopically. The small intestine is then detached below the stomach and then a loop of the small intestine is brought up and attached to the stomach. The small intestine that was detached from the stomach remains connected to the loop, bringing digestive enzymes to the food emptying from the stomach. This allows enough absorption of vitamins and minerals to maintain healthy levels of nutrition.

There is significant intestinal malabsorption with the SADI-S, but less than the DS due to the longer common channel allowing for nutrient absorption.

BILIOPANCREATIC DIVERSION (SADI-S)



Gastric Surgery Comparison Chart

| Procedure | BMI | Estimated Weight Loss | Advantages | Disadvantages | Potential Complications |
|--|--|---|--|--|---|
| Gastric Band | 35 30 with co-morbidities | Gradual 1-2 pounds per week 40-60% Excess body weight | Reversible, no malabsorption, adjustable. | Vomiting, nausea, and reflux. | Band slippage, erosion, leak in the tubing, port turning. |
| Gastric Balloon | 35 30 with co-morbidities | Very Gradual 25-45% Excess body weight | Temporary | Persistent nausea and reflux. | Deflate and cause stomach or small bowel obstruction |
| Sleeve Gastrectomy (Sleeve) | 40 35 with co-morbidities | Rapid 2-3 pounds per week 50-65% Excess body weight | No malabsorption, some reduction in stomach hormones, improves diabetes | Irreversible, may cause reflux, Vitamins for life | Leak, some nausea/vomiting, some malnutrition |
| Gastric Bypass (Roux-en-Y) | 40 35 with co-morbidities | Rapid 2-4 pounds per week 50-75% Excess body weight | Greatest reduction of stomach hormones, may resolve Type 2 Diabetes | Dumping syndrome, Vitamins for life. No NSAIDs (ibuprofen and naproxen). | Leak, ulcers, nausea/vomiting, bowel obstruction, malnutrition. |
| Duodenal Switch (DS) | 40 35 with co-morbidities Ideal for patients with a BMI of 50 or greater | Very Rapid 60-85% Excess body weight | Most effective for metabolic operation for the treatment of Type 2 Diabetes. | Highest chances for vitamin deficiency. Looser and more frequent bowel movements. Vitamins for life. | Leak, some nausea/vomiting, malnutrition. |
| Single-anastomosis duodeno-ileostomy with Sleeve (SADI-S) | 40 35 with co-morbidities Ideal for patients with a BMI of 50 or greater | Very Rapid 60-85% Excess body weight | Simpler and faster surgery than bypass or DS. Less chance of dumping syndrome. | Looser and more frequent bowel movements. Vitamins for life. | Leak, some nausea/vomiting, malnutrition. |

Lifestyle Changes Before Bariatric Surgery

Lifestyle changes are encouraged to improve your health before surgery, help you tolerate surgery better and ensure successful recovery post-operative. Permanent lifestyle changes are needed for continued success after surgery, which is why it is important to start making changes now.

- Record your daily food intake. See Food Diary example on page 66.
- Begin trying a variety of protein shakes before surgery. Replacing one meal/day with a protein shake can help with weight loss. Look on page 15 for pre-surgery protein shake options and page 20 for post-surgery protein shake options.
- Begin taking a multivitamin. This is a general recommendation and may vary based on your medical history. Please discuss if multivitamins are safe for you with a doctor, dietitian, or pharmacist before starting any new supplement.
- Keep a journal to explore your thoughts and feelings about surgery.
- Begin exercising before surgery to develop a routine; maintain an exercise journal (pages 67 and 68) to see how far you have come.
- Attend support groups to learn more about the surgery and to connect with others. It is recommended that you attend groups before and for at least 1-2 years after surgery. All groups are open to current and prospective patients.

Support Groups are held on Zoom and advanced registration is required, please email **VistaWMO@qhcus.com** to register. If you do not already have an account, you will need to set up a free Zoom account to attend. After registering you will receive an email with a link to join with a meeting ID and password. At the scheduled date and time of the support group, click on the link from your email or go directly to the zoom app and type in the meeting ID and password.

Mealtime Behavior Strategies

Eating habits develop over a lifetime and are influenced by a variety of things. By the time you are an adult, those eating habits are well established, but that doesn't mean you can't change them.

Begin practicing some of the guidelines you will need to follow post-surgery:

- Begin the day with breakfast to start your metabolism.
- Consume 3 small meals and 3 small snacks throughout the day; do not skip meals.
 - Using a 7-inch plates, start measuring 1 oz (fluid), 1 and 2 Tablespoons, and ¼ cup servings.
 - Prepare plates before sitting down to eat, do not set the table 'family style'.
- Take at least 30 minutes to eat each meal.
 - Cut foods into small pieces (dime size) and chew each bite 20-30 times until it feels like puree in your mouth.
 - Use a small spoon, cocktail fork, chopsticks or baby utensils. Try eating with your weaker hand.
 - Put utensils and finger foods (sandwiches) down between each bite.
- Choose low-calorie protein-based snacks.
 - Examples: tuna, nuts, Greek yogurt, cheese, or hummus with vegetable sticks.
- Practice mindful eating:
 - Refrain from eating in front of the TV, computer, or your phone.
 - Break the pattern of eating when you are upset, bored, angry, or lonely. Refocus your energy by going for a walk, run errands, clean the house, or call a friend.
- Stop chewing gum now; after surgery gum can plug your gastric pouch if swallowed.
- Drink at least 64 ounces of non-calorie beverages (water, sugar free additives in water).
 - Start reducing caffeinated and carbonated beverages.
 - Caffeine withdrawal can be unpleasant; you may want to start restricting your intake several weeks before surgery. It takes most people 7-10 days to get through caffeine withdrawal symptoms.
 - Remove beverages from the table while eating to get used to not drinking while you are eating. This new habit will encourage you to chew food more slowly and thoroughly because you cannot rely on fluids to swallow half-chewed food.

Logging Your Food

Use a food journal to track the amount of food you eat. Food records can help identify problems. Copy and use the sample food record enclosed in your guide. An example food log can be found on page 66.

To make the most effective use of your food diary:

- Keep track of the amount and types of foods and beverages you are consuming (example: ½ cup applesauce, 8 oz of skim milk).
- Note the time of day you eat your meal or snacks (to identify meal spacing problems).
- Record how long it took you to finish a meal or snack.
- Some people also find it helpful to record what happened during your meal. Who were you with and how were you feeling before, during and after eating? Were you feeling happy, lonely, depressed, or anxious?
- Do a self-assessment and look at the sugar and fat in beverages such as juice, flavored waters, soda pop, sweetened tea, coffee, milk, and eggnog.
- Look for typical behavior patterns at meal and snack times.

There are many free food-tracking websites available on the Internet. These sites usually provide a database of foods to choose from and will calculate the total number of calories, grams of protein, carbohydrate, fat and many other nutrients. Most apps don't track emotions, location, duration of meal, or who you were with.

Free online resources and phone apps

Online Resources

www.sparkpeople.com
www.myfitnesspal.com
www.fitday.com
www.supertracker.com
www.fitclick.com
www.loseit.com

Phone Apps

Baritastic
MyPlate Calorie Counter
Lose It!
MyFitnessPal
Daily Plate Food Log
Baribuddy

Countdown to Surgery

Many insurance companies require 3-6 months of weight management and some weight loss before surgery.

2-3 Months Prior

Follow the checklist at the beginning of this packet. You must attend appointments with the surgeon, pulmonologist, dietitian, exercise physiologist, and psychologist. The surgeon's office is responsible for submitting any paperwork to the insurance company. In the meantime:

- Contact the pulmonologist as soon as possible and get a sleep study scheduled if needed. The process to obtain and use a CPAP / BiPAP can take a few months.
- Exercise and record it in your journal
- Remove sugar from diet
- Sample some protein powders/shakes
- Try some Stage I and Stage II meals
- Write in dietary journal
- Attend the support group

Stop Smoking

It is essential to stop smoking before surgery. Your surgeon will test you for nicotine and possibly cancel or delay surgery. Smoking impairs oxygen circulation to your healing incision. Oxygen circulation is vital to the healing process and smoking contributes to ulcer formation. Call Tobacco Free Lake County for free help at (847) 377-8090.

1 Month Prior

At this point the surgical date is set and you are working on any last-minute approvals from your primary care physician. This may include the following tests:

- Blood work
- EKG
- Chest x-ray

Meet with the pharmacist in person or by phone to review medications. Some medications need to be discontinued prior to surgery and for the first month after surgery you will not be able to swallow solid pills, including vitamins. Therefore, post-op you will need to crush your medications or get the liquid form (some time-released medications can't be crushed).

2 Weeks Prior

- Begin your high protein, low carbohydrate diet, you may lose between 5-10 pounds during this time. Make sure to consume enough sugar-free fluids.
- This diet is to decrease the size of the liver and stomach before surgery. This makes it easier to do the operation because if the liver is too large, it can block access to

the stomach. If the stomach is too stretched it may be challenging for the surgeon to determine how much to remove / how big of a pouch to create.

- Continue exercising and recording it in your journal.
- Schedule arrangements for transportation to and from the hospital. You will not be allowed to drive yourself home.

1 Week Prior

A Same Day Surgery nurse will call you prior to surgery to tell you when to report for surgery. The nurse will ask you additional questions about your insurance, date of birth, address, height, weight, and medications to register you and prepare for surgery.

Night Before Surgery

Do Not Eat or Drink

Do not eat or drink anything after midnight, including water, unless otherwise instructed.

What you should bring to the hospital:

Pack your bag with personal hygiene items (toothbrush, toothpaste, deodorant, lip balm, etc.), loose fitting shorts, tops, and tennis shoes or slippers. For safety reasons, do not bring electrical items.

If you have sleep apnea, bring your machine to help you sleep at the hospital.

You must bring the following to the hospital:

- Patient guidebook
- Copy of your advance directives
- Insurance card, driver's license or photo I.D., and any co-payment required by your insurance company.

Special Instructions

- You will be instructed by your physician and the pharmacist about your medications.
- DO NOT take medication for diabetes on the day of surgery.
- Leave jewelry, valuables, and large amounts of money at home.
- Makeup and nail polish must be removed before your procedure.

Pre-operation Bariatric Surgery Diet

Weight loss before surgery:

- Allows for a safer and easier surgical procedure.
 - Liver will have reduced in size, less time spent in the operating room.
 - Stomach will shrink back to a normal size.
- Promotes faster recovery following surgery.
 - Helps maintain normal blood glucose levels which is important for healing.
- Leads to the best possible overall weight loss.
 - Anticipate losing 5-10 pounds on this diet in the 2 weeks leading to your operation.
- Helps prevent indulging in inappropriate 'last chance' eating behaviors.
- The first 3-4 days are the hardest, use tricks below to help your stomach feel full.

Two week pre-op meal plan:

- You need 800-1,000 calories and 80-100 grams protein daily from protein shakes and real food.
 - Additionally, since the goal is to shrink the liver, you are recommended to consume no more than 50 grams of carbohydrates per day.
- This meal plan consists of 3 protein shakes, one low-carbohydrate meal, and two snacks.
 - Your low-carbohydrate meal can be consumed at any time of the day.
- Spread your shakes, meals, and snacks throughout the day, every 2-3 hours.
- Drink 64 ounces of water per day
 - Consume as much zero-calorie beverages such as water or herbal teas as you like.
 - Avoid caffeinated and carbonated beverages.
 - You can drink up to 4 servings/day of low-calorie drinks such as Crystal Light®
 - Sugar-free gelatin and sugar-free popsicles (no more than 40 calories/day).
 - Please limit your consumption of broth to 2 cups per day due to the high sodium.
- Tricks to help feel full during the first few days:
 - Consume warm broth and herbal tea.
 - Have a cup of sugar free gelatin.

Day before surgery:

- Do not eat solid foods, drink 4-5 protein shakes instead.
- Do not eat or drink anything with red dye (such as strawberry or cherry gelatin and popsicles).

Pre-operative Meal Plan

3 Protein Shakes per day: See options below

Solid Meal: See options on following page

- 1 serving of lean protein (110-160 calories) - bake, broil, or grill; no fried or breaded items
- 2 servings of non-starchy vegetables (50 calories) – no added fats

Snack 1: Choose one:

- ½ cup low fat (2%) cottage cheese (90 calories, 13 grams protein, 5 grams carbohydrate)
- 1 string cheese (80 calories, 6 grams protein, 1 gram carbohydrate)
- 1 pack tuna / salmon in water (70 calories, 17 grams protein, 0 grams carbohydrate)
- 5oz fat free, sugar free yogurt (60 calories, 11 grams protein, 5 grams carbohydrate)
- 16 low-salt almonds (111 calories, 4 grams protein, 3 grams carbohydrate)
- 1 large egg (78 calories, 6 grams protein, 0 grams carbohydrate)

Snack 2: Choose one:

- 1 cup of carrots or bell peppers or 1 ½ cups cherry tomatoes (40 calories and 8-9 grams carbohydrate)
- Half of a small apple or a half cup berries (40 calories and 10 grams carbohydrate)

Shake Options:

150-200 calories, 15-20 grams of protein and 15 grams of carbohydrates or less.

| Premixed – whey based | Available Locations |
|---|-------------------------------------|
| Adkins Shakes® (not Energy, Iced Coffee, or Plus) | CVS, Jewel-Osco, Target, Walmart |
| Boost Glucose Control® | Jewel-Osco, Meijer, Walmart |
| Slim-Fast Advanced (High Protein)® | CVS, Meijer, Target, Walmart |
| Splenda Diabetes Care Shakes | Jewel-Osco, Walmart, Meijer |
| Meal Replacement Powders + 1 cup water | |
| Fitfactor® Protein Shake | GNC, Vitamin Shoppe |
| HLTH Code® (1 scoop) | gethlth.com |
| SDC Nutrition® SUPER-LEAN Deluxe Meal Replacement (1 scoop) | Vitamin Shoppe, GNC.com |
| Women’s Best Shape® Body Shake | GNC, Vitamin Shoppe, Walmart.com |
| Vegetarian/Vegan options | |
| Ensure® Plant-Based Protein Nutrition Shake (premixed) | Meijer, The Vitamin Shoppe |
| Om Mushroom Superfood - Master Blend -mix with water | Target, Amazon, The Vitamin Shoppe |
| Orgain® Organic Protein Powder – mix with water | Costco, Sam’s Club, Target, Walmart |
| Ripple Nutrition® protein shake (pre-mixed) | Target, shop.ripplefoods.com |
| Vega One® Organic All-in-one-shake – mix with water | GNC, Vitamin Shoppe, Walmart.com |

** Vista Health is not affiliated with the makers of these products and do not endorse these products. **

Pre-operative Bariatric Surgery Diet: Meal Options

Vegetable

Pick 2

Per Serving: 25 calories, 5 g carb, 2 g protein

| Eat More Often | Serving Size |
|---|-------------------------|
| Artichoke | 1 medium |
| Asparagus | ½ cup cooked |
| Bean sprouts | 1 cup |
| Beets | ½ cup / 1 medium |
| Broccoli | 1 cup raw / ½ c cooked |
| Brussels sprouts | ½ cup |
| Cabbage | 1 cup raw / ½ c cooked |
| Carrots | 1 cup raw / ½ c cooked |
| Cauliflower | 1 cup raw / ½ c cooked |
| Celery | 6 sticks |
| Cucumber | 1 |
| Eggplant | ½ cup |
| Greens: Collards, Turnips, Mustard, Kale) | ½ cup cooked |
| Green beans | ½ cup |
| Leeks | ½ cup |
| Lettuce greens | 5 cups |
| Mushrooms | 1 cup |
| Okra | 6 pods or ½ cup cooked |
| Onions | ½ cup raw / ¼ c cooked |
| Pepper, bell | 1 cup raw / ½ c cooked |
| Radishes | 10 |
| Rutabagas | ½ cup cooked |
| Scallions | ½ cup |
| Spinach | 1 cup raw / ½ c cooked |
| Squash -spaghetti | ½ cup cooked |
| Squash - yellow | ¾ cup cooked |
| Tomatoes | 1 small or 1 cup cherry |
| Water Chestnuts | ½ cup |
| Zucchini | ¾ cup cooked |
| Eat Less Often | Serving Size |
| Spaghetti sauce | ½ cup |
| Tomato Juice | ½ cup |

Protein

Pick 1

Per Serving: 110-160 calories, 14-21 g protein

| Eat More Often | Serving Size |
|--|--------------|
| Beans / lentils | ¾ cup cooked |
| Edamame | ¾ cup |
| Tofu | ½ cup |
| Egg Whites | 4 large |
| Egg Substitute, plain | ¾ cup |
| Egg (large) | 2 whole |
| Game, wild, no skin | 3 ounces |
| Pheasant, venison, rabbit | 3 ounces |
| <u>Fish</u> | |
| Fish, fresh or frozen | 3 ounces |
| Salmon | 2 ounces |
| Sardines | 4 medium |
| Tuna in water | 3 ounces |
| Tuna in oil | 2 ounces |
| <u>Shellfish</u> | |
| Clams | 15 |
| Crab, lobster, scallops | 3 ounces |
| Oysters | 12 medium |
| Shrimp | 15 medium |
| <u>Poultry (no skin)</u> | |
| Chicken / turkey, white meat | 3 ounces |
| Cornish hen | 3 ounces |
| Chicken / turkey, dark meat | 2 ounces |
| Duck or goose | 2 ounces |
| Ground turkey breast | 3 ounces |
| Eat Less Often | Serving Size |
| Beef, lean trimmed of fat: round, sirloin, flank | |
| 93-97% lean | 2 ounces |
| Deli meat (natural) | 3 ounces |
| Lamb roast / chop | 2 ounces |
| Pork – lean tenderloin | |
| Center cut chop, Canadian Bacon, Ham | 2 ounces |

Pre-Operative Meal Ideas:

2 ounces salmon with ½ cup cauliflower rice and ½ cup of cooked asparagus

3 ounces ground turkey mixed in ½ cup of low-sugar marinara sauce and 1 cup of zoodles / spaghetti squash

15 medium shrimp with broccoli and ½ cup of sauteed radishes (very similar to potatoes)

Salad: 2 cups of lettuce with 2 cups raw cut up vegetables, 1 hardboiled egg and 1.5 ounces of chicken breast. Please use low calorie salad dressing mist / spray.

Egg wrap with seasoned-grilled and raw vegetables; or a cauliflower wrap (frozen food section) prepared with meat and vegetables; think burrito night.

Special Note for Diabetic Patients:

This diet is likely a reduction from your normal intake of carbohydrates and calories. If you are taking prescription pills or injections, consult with your doctor about how to adjust medications. Taking less medication will help prevent low blood sugar, which in turn prevents you from eating snacks to treat it. Eating extra may take you over the 800 -1,000 calorie limit and 50 grams carbohydrate limit for the pre-op high protein diet. Please check your blood sugar at least 4 times/day.

Additional note:

After Surgery Patients may struggle with continued weight loss or go back to making poor choices. Following this diet for 2 weeks can help hit the ‘reset button,’ shrinking the stomach and encouraging patients to eat mindfully throughout the day to improve their metabolism.

Timeline of important dates (complete in as your go through the process):

| | |
|--|--|
| Date of operation | |
| Start pre-operative high protein diet (2 weeks before operation) | |
| Date for liquid diet (1 day before operation) | |
| Start Phase 1 Full Liquid Diet (date of discharge from hospital) | |
| Start Phase 2 Pureed Diet (per surgeon’s direction, weeks 2-4) | |
| Start Phase 3 Soft Diet (per surgeon, weeks 4-6; up to 6 months) | |
| Start Phase 4 Bariatric Diet (per surgeon’s direction) | |

Stage I: Bariatric Clear & Full Liquid Diet Weeks 0-2 After Surgery

Immediately following surgery your stomach will need time to heal. You will only tolerate small portions of liquid at one time and will only be allowed to sip bariatric clear liquids on day 1. Once you are at home, you can start including full liquids (protein shakes). Aim for 48-64 ounces (8 cups) of total fluid per day. It is common to only tolerate 16-32oz/day to start. By the end of the first week you should be consuming 60 grams of protein per day.

Guidelines:

- Limit fluid intake to 1oz every 15 minutes
- Frequently sip on liquids and space out through-out the day to prevent dehydration.
- Stop when you start to feel full; if you ignore this signal, you may experience nausea, vomiting, or feeling that something is “stuck”.
- Avoid very hot or cold liquids initially.
- You may find you don’t tolerate or like the same drinks anymore.
- You may find that drinks now taste “too sweet.” Try diluting sweet drinks or use unflavored protein powders.
- Start chewable or a liquid form of bariatric multivitamins

| Food Group | Stage I – Allowed | Not Allowed |
|--|---|---|
| <p style="text-align: center;">Protein</p> <p>Aim for 60 grams of protein per day. See page 19</p> | <ul style="list-style-type: none"> • Protein shakes <ul style="list-style-type: none"> • 20-30 g protein, 0-4 g sugar, some carbohydrate, and up to 200 calories • Protein waters (sugar free) • Whey protein powder mixed with skim or 1% milk • Bone broth • Protein soups | <ul style="list-style-type: none"> • Avoid protein shakes high in added sugars. • Avoid high calorie sugary shakes such as Ensure® or Boost®. |
| <p>Other Beverages</p> | <ul style="list-style-type: none"> • Water • Sugar free artificially sweetened beverages • Decaffeinated coffee and tea • Sugar free popsicle • Sugar free gelatin (Jell-O®) | <ul style="list-style-type: none"> • No juice- lifelong • No sugar sweetened drinks (including honey)- lifelong • No straws- lifelong (can cause bloating, indigestion) • No alcohol for 1 year (irritates stomach, fast intoxication) • Avoid carbonated drinks- lifelong (may stretch pouch and allow for weight gain) |

Sample Menu for Stage I - Full Liquid Diet

Ideally you should be having protein shakes because they contain some carbohydrates, if you do not tolerate protein shakes you can try protein water to meet your protein goals.

Pay attention to your protein and fluid intake, choose a liquid protein 4-6 times per day (example: 3 meals and 2-3 snacks).

Breakfast

½ cup protein water or ½ cup protein shake (10-15 grams protein)

Morning Snack

½ cup of skim or 1% milk mixed with chocolate protein powder (10-15 grams protein)

Lunch

½ cup low sodium beef bone broth mixed with unflavored protein powder (5-10 grams protein)

½ cup sugar free punch mixed with protein powder (5 grams protein)

Afternoon Snack

½ cup pre-mixed vanilla protein shake (10 grams protein)

Dinner

½ cup skim or 1% milk mixed with strawberry protein powder (10-15 grams protein)

½ cup low sodium chicken broth

Evening Snack

½ cup skim or 1% milk (5 grams Protein)

Goal: By the end of the first week, you can expect to consume approximately 50-60 grams of protein per day.

Protein Drinks After Surgery: Stage I, II, III, and Lifelong

How to pick a protein supplement post-surgery:

- Check the nutrition label per serving:
 - 20-30 grams of protein per serving
 - 150-200 calories per serving
 - 5 or more grams carbohydrate - You need some carbohydrates
 - 0-4g added sugar per serving – Avoid empty calories from sugar
- Avoid shakes for weight gain like original Ensure[®], Glucerna[®], Boost[®] or Breeze[®] and sugary drinks like Special K[®]. These can slow down weight loss, cause weight gain, and may result in dumping syndrome due to the high sugar content.

Protein supplements that adhere to recommendations:

- Ensure Max Protein[®] = 30 grams protein and 150 calories (6g carbohydrates, 1g sugar)
- Premier Protein[®] = 30 grams protein and 160 calories (5g carbohydrates, 1g sugar)
- Fairlife[®] Nutrition Plan = 30 grams protein and 150 calories (4g carbohydrates, 2g sugar)
- GNC Total Lean[®] Lean Shake = 25 grams protein and 170 calories (6g carbohydrates, 2g sugar)
- Elevation[®] High Performance (Aldi brand) = 30 grams protein and 160 calories (5g carbohydrates, 1g sugar)
- Vega Sport Premium Protein[®] = 30 grams protein and 160 calories (6g carbohydrates and 2g sugar)
- Whey protein powder mixed with 1% or fat free milk.
 - If you can't tolerate whey, try egg-based protein powders

Several companies make savory protein soups:

- Bariatric Fusion[®] Meal Replacement: chicken soup = 27grams protein, 160 calories (10 grams carbohydrate)
- Celebrate Nutritional Supplements[®] Meal Replacement: Chicken Soup = 24 grams protein and 130 calories (8 grams carbohydrate)
- Celebrate Nutritional Supplements[®] Protein Soups: Cream of Broccoli and Cheese, Cream of Tomato, Cream of Vegetable = 15 grams of protein, and 90-100 calories (5-7 grams carbohydrates)
- Unjury[®] Chicken or Santa Fe Chili Protein Soups = 21 grams protein and 90 calories (2 grams carbohydrate)

** Vista Health is not affiliated with the makers of these products and do not endorse these products **

Stage II: Pureed Diet Weeks 2-4 After Surgery

Your surgeon will instruct you when to advance to the pureed diet. During your first month after surgery, your stomach pouch is very small and the opening to your intestine may be swollen. You will be able to eat a limited amount of food. Focus on eating the most important food for healing: protein. All proteins must be soft, moist, and well chewed to pass through your small stomach successfully.

Guidelines:

- **Eat 1 tablespoon of pureed protein, if that goes well, consume a second tablespoon. After you are done with 2 tablespoons of protein, try adding 1 tablespoon of vegetable, then add a second. You will likely be able to consume 4 tablespoons of food by the end of the second week.**
- Increase clear liquids intake to 48-64 ounces per day. Drink between your meals.
- Portions of puree are 2-4 Tablespoons, do not exceed ½ cup (4 tablespoons).
- Try to include protein at all meals and snacks: 3-6 protein foods per day.
- Avoid drinking fluids 10 minutes before eating and 30 minutes after a meal.
- Stop when you feel full.
- Take your chewable Bariatric Vitamins.

Tips to puree food in the blender:

- Cut food into small pieces, place in blender or food processor
- Add broth, milk, or water in equal parts to solids
- Blend until smooth, strain foods that did not fully blend

| Food Group | Stage II- Allowed | Not Allowed / Notes |
|---|--|--|
| Protein Portion: 2-4 tablespoons Aim for 60 grams of protein/day | <ul style="list-style-type: none"> • Soft scrambled eggs • Lean ground meats (chicken, turkey, sirloin) • Soft fish (chopped) • Soft chicken (pureed / canned) • Low-fat cottage cheese • Fat-free refried beans • Low fat Greek yogurt <ul style="list-style-type: none"> ○ Ex: Dannon Oikos® Triple Zero or Two Good® • Smooth peanut butter • Protein shakes / protein water | Avoid high fat proteins: marbled beef, bacon, ground pork and pork shoulder. Avoid anything breaded, fried, and served with cream sauce or butter. Avoid added sugars. Be sure to check all labels and only choose products with 0-4 grams of added sugar. |

| | | |
|--|--|--|
| <p>Vegetables and Fruit</p> <p>2-4 tablespoons as tolerated</p> | <ul style="list-style-type: none"> • Pureed: fruits and vegetables, applesauce or mashed fruit | <p>Eat Fruit last</p> |
| <p>Condiments</p> <p>Select condiments that contain 15 calories or less</p> | <ul style="list-style-type: none"> • Dried herbs and spices • Lemon and lime juice • Sugar-free sweetener - Stevia®, Sweet 'N Low® (saccharin) Splenda® (sucralose) • Sugar-free ketchup and barbeque sauce • Low fat plain Greek yogurt <ul style="list-style-type: none"> • Use to replace sour cream or mayonnaise • Flavored Vinegars: balsamic and apple cider vinegar • Sugar-free coffee creamer | <p>Many condiments are high in calories: butter, oil, Italian dressing.</p> <p>Avoid added sugars: honey, sugar, brown sugar, maple syrup, and agave.</p> <p>Seasonings that are too spicy may irritate your stomach.</p> |
| <p>Beverages</p> <p>Aim for 48-64 ounces fluid per day</p> | <ul style="list-style-type: none"> • Water • Sugar-free beverages such as Crystal Light® • Decaffeinated coffee or tea • Sugar-free popsicle • Sugar-free gelatin (Jell-O®) • Sugar-free hot chocolate made with water or low-fat milk • Broth-based soups, no chunks | <p>Avoid sports drinks: regular Gatorade® or Propel®</p> <p>No juice</p> <p>Carbonated liquids (irritating, may stretch pouch over time)</p> <p>No Straws (causes bloating and indigestion)</p> <p>No Alcohol (irritates the stomach, fast intoxication, high in calories)</p> <p>Avoid cream-based soups. The high fat content can cause dumping and is high in calories.</p> |

Sample Menu – Stage II Pureed Foods

Breakfast

1 egg white scrambled with 1 tsp low fat cheese - (10 grams protein)

Morning Snack

Drink water, a snack is optional and should be protein-based.

Lunch

1 cup skim milk mixed with vanilla protein powder (25 grams protein)

Afternoon Snack

Drink water, a snack is optional and should be protein-based.

Dinner

1-2 oz pureed or canned chicken (7-14 grams protein)

¼ cup pureed or mashed canned green beans

Evening Snack

1/4 cup Greek yogurt mixed with protein powder (15 grams protein)

Protein intake from sample meal plan is approximately 60 grams protein per day

You may not be able to eat all the food in the sample menu. Start slowly and after each bite ask yourself if you feel full and look for signals of fullness. Do not exceed ½ cup portions of puree food in one sitting.

Identifying Feeling of Fullness

After eating you will have different fullness cues signaling that you are full; these will likely be different than the fullness cues you are familiar with. Listen to your body; signs of fullness include **slight pressure in your chest, burping, a hiccup, pain/ twisting feeling in the stomach,** and **excess saliva production**. When you start to feel a sense of fullness, stop eating. One extra bite can cause discomfort, pain, nausea or even vomiting. If you experience any of these issues, try to identify the cause to prevent them from occurring again:

- Did you eat too much or take small enough bites?
- Did you eat too fast?
- Did you drink fluids before, with or after your meal?
- Did you chew your foods to pureed consistency?
- Did you lie down right after you ate a meal?

Stage III: Soft Solid Food Diet Week 4+ after surgery

The soft diet usually begins after your second post-operative appointment with the surgeon. Do not advance to the soft diet without your surgeon’s approval. Please note: diet progression is very slow for safety purposes and helps to re-establish your relationship with food. You are often on a modified version of the soft diet for 3-6 months.

You can gradually introduce more solid foods into the diet once these foods can be tolerated without discomfort. Do not try any “solid foods” until you have been on a soft diet for at least 2 weeks.

Soft foods are considered any food in which a fork can easily cut through, they do not need to be pureed. This diet does not include high-fiber foods, grains, raw fruits or vegetables, fried foods, tough meats, whole nuts, or seeds.

Guidelines:

- Chew foods to a mushy consistency before swallowing (10 chews/ bite).
- Stop eating when you start to feel full.
- Avoid drinking fluids 10 minutes before eating and 30 minutes after a meal.
- Eat protein-rich foods first, followed by vegetables and fruits. Meals and snacks should contain 15 to 20 grams of protein each. Starches are generally recommended 1-year post-op.
 - Measure 1 ounce portions of protein and vegetable, this will help you mentally and physically pay attention for fullness. If you can eat 1 ounce of protein, then you can move on to the vegetable.
- You will need protein shakes for at least 3-6 months after surgery to meet your protein goal.
- Document problem foods in your food diary.

| Food Group | Stage III- Allowed | Not Allowed / Notes |
|--|--|--|
| Protein Start with 1 ounce portions per meal Aim for 2-3 servings per day | <ul style="list-style-type: none"> • Extra lean ground beef (round or sirloin) • Skinless chicken or turkey • Fish, shrimp, crab • Pork tenderloin and lean ham • Smooth peanut / almond butter • Tofu or tempeh • Eggs • Meatless options Beyond Meat® Impossible Burger® • Refried beans / canned beans | <ul style="list-style-type: none"> • Anything breaded, fried, served with cream sauce or butter • High fat cuts of meat <ul style="list-style-type: none"> ○ Bacon, prime cuts of beef, pork sausage, goose, lamb • Poultry skin • Tough meat such as jerky • Fish in oil • Nuts, seeds, dried beans |

| Food Group | Stage III- Allowed | Not Allowed / Notes |
|---|---|--|
| <p align="center">Dairy</p> <p>1 serving= ½-1 cup milk or milk substitute, ½-1 cup yogurt, 1 ounce low fat or reduced fat cheese</p> <p>Aim for 2 servings per day</p> | <ul style="list-style-type: none"> • Nonfat milk, 1% milk, 2% milk, buttermilk, nonfat dry milk powder, unsweetened almond milk, or unsweetened soy milk • Light or nonfat Greek yogurt or Skyr • Low-fat cheese / cottage cheese / string cheese | <ul style="list-style-type: none"> • Whole milk • Sugar-sweetened milk alternatives • Whole milk yogurt, fruit on the bottom, or other sugar-sweetened yogurt • Cheese with more than 5 grams fat per ounce |
| <p align="center">Vegetables</p> <p>1 serving = ¼ cup cooked, frozen or canned; ¼ cup vegetable juice</p> <p>Aim for 2-3 servings per day</p> | <ul style="list-style-type: none"> • Cooked vegetables (fresh, frozen, or canned) • Vegetable juice • Try vegetable replacements for wraps, pastas, and rice. | <ul style="list-style-type: none"> • Deep-fried vegetables • Anything served in cream sauce or butter/margarine • Raw vegetables including lettuce (after 6 weeks) • Gas producing vegetables: cabbage, cauliflower, broccoli, brussels sprouts, onions (3 months post-op) – DS and SADI-S |
| <p align="center">Fruit</p> <p>1 serving = ¼ cup canned fruit, ½ piece of fresh fruit without skin or seeds</p> <p>Aim for 1-2 servings per day</p> | <ul style="list-style-type: none"> • Water-packed canned fruit • Fresh fruit without skin • Banana • Applesauce (un-sweetened) | <ul style="list-style-type: none"> • Raw fruit with tough skin (2 months post-op) • Dried fruit • Grapes (difficult to digest the seeds and skin wait until 3 months post-op) |
| <p align="center">Starches</p> <p>Avoid eating starchy food your first year; these foods should be eaten on special occasions only</p> | <ul style="list-style-type: none"> • Low fat whole grain crackers or breads (limit) • Baked white or sweet potatoes • Whole grain or lentil pasta or brown rice (2 Tbsp) • Whole grain flour tortilla or corn tortilla (less than 100 calories) | <ul style="list-style-type: none"> • White bread, rolls, crackers, rice, or pasta • High fat chips, fries, popcorn • Cereals: select high fiber, low sugar cereal at 1 year post-op • Energy Bars |
| <p align="center">Fats</p> <p>No more than 3 servings per day of fats</p> <p>1 tablespoon per serving</p> | <ul style="list-style-type: none"> • Reduced-fat salad dressing • Low-fat mayonnaise • Low-fat cream cheese • Low-fat sour cream <ul style="list-style-type: none"> ○ Try replacing with Greek yogurt | <ul style="list-style-type: none"> • Butter, bacon fat, fatback, lard, shortening, and full fat cream cheese • Cream-based sauces: ex: alfredo and hollandaise sauces |

| Food Group | Stage III- Allowed | Not Allowed / Notes |
|--|---|--|
| <p style="text-align: center;">Condiments</p> <p>Calorie content should be less than 15 calories.</p> | <ul style="list-style-type: none"> • Sugar-free Barbeque sauce, Ketchup, or syrup • Mustard • Dried Herbs and Spices • Lemon and Lime juice • Sugar free sweetener - Stevia®, Sweet 'N Low® (saccharin) Splenda® (sucralose). • Flavored Vinegars • Unsweetened Cocoa powder or pumpkin puree for hot cereal | <ul style="list-style-type: none"> • Chocolate, Coconut • Check all sauces, dressings, and seasonings for added sugars or fats. |
| <p style="text-align: center;">Beverages</p> <p>Aim for 48-64 ounces per day</p> | <ul style="list-style-type: none"> • Water • Decaffeinated coffee or tea • Sugar-free beverage mixes • Diet, decaffeinated non-carbonated beverages • Sugar free popsicles • No sugar added Carnation Instant Breakfast® | <ul style="list-style-type: none"> • Caffeinated coffee or tea • Regular soda or sugar-sweetened beverages or fruit juice • Alcohol |

Sample Menu - Stage III Soft Foods

Breakfast

2 Tablespoons of cottage cheese, ½ banana, 1 tablespoon of peanut butter (15 grams protein)

Morning Snack

1 cup skim milk with chocolate protein powder (30 grams protein)

Lunch

¼ cup tuna salad with low fat mayonnaise, rolled in large spinach leaves (10 grams protein)

Dinner

2 ounces of baked fish, ¼ cup cooked carrots, and ¼ cup cauliflower rice (15 grams protein)

Evening Snack:

½ cup light Greek yogurt (10 grams protein)

Protein intake from sample meal plan is approximately 80 grams of protein for the day.

Stage IV Solid Bariatric Diet

It is important to continue progressing the diet slowly and add any new foods in one at a time to assess for tolerance. Include a variety of foods in your daily meals: an assortment of lean proteins, low-fat dairy products, vegetables, and fruits will allow you to get the nutrients that your body needs.

- High protein foods should make up 50% of each meal for months 2-6.
- Around 6-12 months post op you may be able to tolerate 2-3 ounces (size of deck of cards) of protein in one sitting. If you can tolerate a 2-3 ounces protein the rest of your meal should consist of vegetables, and fruits. Most people only need 2-3 ounces of protein per meal.
- At one-year post-op, starchy foods such as bread, tortillas, pasta, rice, and potatoes can be consumed in small portions. Try to select high quality starches: whole grain and low in added fats.

Remember:

Eat 3 meals a day ($\frac{1}{2}$ -1 cup) and 1 or 2 high protein snacks a day the size of $\frac{1}{4}$ - $\frac{1}{2}$ cup. Larger portions will delay weight loss and may cause your stomach to stretch. Avoid consuming frequent snacks, more than 3 meals, or “grazing” on food or liquid calories (example: protein shakes); these habits can cause weight gain.

Eat slowly: ensure that you are chewing food thoroughly. Tough meats such as jerky is allowed during this stage but should be chewed to applesauce consistency.

Listen to your hunger and fullness signals: if you eat when you aren't hungry your stomach won't notify you when it is getting full. If you ignore any fullness signals, your stomach will start stretching, which results in weight gain.

Notes:

Alcohol can be dangerous after any bariatric surgery. Due to the modifications to your stomach, alcohol is absorbed quicker and you will reach a greater degree of intoxication with a small amount. Never drink more than 2 alcoholic drinks within 24 hours and try to avoid carbonated beverages (using soda as a mixer or beer) or high sugar drinks (including juice as a mixer). Once individuals begin incorporating alcohol again weight loss tends to stop.

Protein Intake

Protein is important for healing after surgery, to maintain lean body mass (muscle), and prevent hair loss. Signs of protein malnutrition include: brittle nails, hair loss, slow healing, weakness, and a weak immune system.

Recommendations

60-95 grams per day for a women

80-110 grams per day for a man

Recommendations vary; please consult your dietitian for your specific goal

Each meal should include 15-30 grams of a high-quality protein food such as lean meats, low-fat dairy products, eggs, or protein supplements (which may be needed at first to achieve your protein goal). It is important to eat high protein foods first at each meal for the first 6 months after surgery and until you can consume a 2-3 ounce solid portion of protein. This will allow your body to feel a sense of fullness and you will consume much less food, allowing for a quicker and more successful weight loss.

Suggestions to Increase Protein:

- Low-fat Cottage Cheese: add to eggs or fruit, make high protein pancakes, and blend into protein shakes. Try making cottage cheese ice cream.
- Low-sugar Greek Yogurt: add to fruit, milk-based beverages, sugar-free pudding or gelatin, and protein shakes.
- Skim Milk: use in place of water during cooking and add to soups.
- Eggs and Egg Substitutes: add to salads, make into 2 ingredient banana pancakes, make into a low-carb wrap.
- Beans/Legumes: add to soups or salads, use pureed beans as a condiment, or roast (chickpeas) with spices for a crunchy snack.
- Soy Protein: Add tofu or vegetarian meat alternatives to soups, low-fat casseroles, and vegetables.
- Protein Powder and Non-fat Dry Milk: add to oatmeal, applesauce, sugar-free pudding, and yogurt.
- Bone Broth can be used in place of regular chicken broth or water for soup, stew and to thin out sauces.
- High protein pastas can be used in place of regular pasta. Look for lentil, black bean, and chickpea varieties.
- Replace rice with quinoa

Dietary Fluid Information

Prior to surgery, most of the fluids your body receives come from the foods you consume. Because your food and carbohydrate consumption after surgery decreases, your body requires extra fluids to maintain hydration.

You should drink 48-64 ounces liquids each day which is 6-8 cups (8 ounce is equal to 1 cup). Beverages should be calorie-free, non-carbonated, caffeine-free, and sugar-free. Avoid juice and other high calorie beverages like smoothies, full fat milk, and sweet teas.

By carrying a water bottle with you, you will have a visual cue to sip on liquids all day. Find a water bottle that is reusable, easy to clean, and that you wouldn't want to lose.

Light colored urine during the day means you are keeping up with your fluids. Dehydration can cause nausea and can quickly escalate; please stay mindful of fluid consumption between meals.

Fluid Guidelines

1. Acceptable beverages include the following:
 - Water
 - Sugar free drinks
 - Examples: Mio® drops, Crystal Light®, Diet Kool-Aid®
 - Any other calorie-free liquid product that is non-carbonated and non-caffeinated
 - Decaf coffee and herbal tea
 - Always check the label for 0g Sugar, 0 Calories.
2. Fluids should be consumed on a near constant basis
 - Stop sipping liquids 10 minutes before a meal: this is for the first 6 months following surgery. Eventually you can drink before a meal.
 - Do not eat and drink at the same time
 - Don't drink liquids until 30 minutes after completing your meal: this is recommended lifelong.

Food in your stomach can form a plug that blocks the outlet from the pouch. Additional fluid intake can create a very uncomfortable sensation and may also force food into the rest of the digestive system making you hungry quicker. If you drink during your meal, you will wash the food out of the stomach pouch and consume more food than desired.

3. Avoid drinking through a straw. This habit can over-inflate your new stomach with air, stretching the stomach out and may cause discomfort.
4. Never drink carbonated beverages; this will stretch the stomach out.

Dumping Syndrome

Dumping syndrome is an unpleasant condition common after the Roux-En-Y gastric bypass surgery, usually due to eating and drinking at the same time or eating inappropriate foods.

Symptoms include:

- Severe cramps
- Diarrhea
- Sweating
- Light-headedness
- Heart palpitations
- Vomiting 'mucus'

To avoid dumping syndrome, follow these guidelines:

- Do not eat and drink at the same time
- Avoid food and beverages high in sugar
- Avoid fatty, greasy foods
 - Replace your deep fat fryer with an air fryer
 - Trim visible fat off meat prior to cooking
- Avoid eating large portions, even if high in protein

Avoid the following foods and beverages:

- Cake
- Candy
- Cookies
- Custard
- Ice cream
- Granola and sweet cereals
- Pastries and pie
- Agave nectar
- Corn syrup
- Honey
- Maple syrup
- Molasses
- Jam and jelly
- Sugar
- Alcohol
- Energy drinks
- Fruit Juice
- Nutrition shakes high in sugar
- Sports drinks
- Soft drinks
- Sugar-sweetened beverages

Try the following Non-nutritive sweeteners and look for them in the products you purchase:

- Monkfruit
- NutraSweet® (aspartame)
- Stevia (Truvia®, Stevia in the Raw®)
- Sweet 'N Low® (saccharin)
- Splenda® (sucralose)

If any of the following types of sugar are among the first three ingredients, do not eat that food:

- Brown sugar
- Corn syrup
- Confectioners sugar
- Dextrose
- Fructose
- Glucose
- Granulated sugar
- Honey
- Lactose
- Levulose
- Maltitol*
- Mannitol*
- Maltose
- Maple Syrup
- Molasses
- Raw / Turbinado sugar
- Sorghum syrup
- Sucrose
- Sorbitol*
- Xylitol

*Sugar alcohols may cause gas/diarrhea

Food Intolerances

Most individuals respond differently to foods they had once consumed. Sometimes it takes trial and error to discover which foods are best tolerated. Some food intolerances may be permanent, although most resolve with time.

Typical foods that may be difficult to tolerate include:

Meats:

- Shellfish
- Dry poultry: try moist cooking methods such as slow cookers or pressure cooking
- High fat meats such as beef or pork

Vegetables:

- Raw vegetables
- Cooked vegetables with tough skin
- Stringy vegetables (celery, peapods, asparagus) (*bypass*)
- Gas causing vegetables (broccoli, cauliflower, cabbage, Brussels sprouts, onions) (*DS*)

Fruits:

- Dried fruits / Hard fruit
- Skins of fruits, especially grapes
- Citrus fruits and other fruits with membranes.

Milk Products:

If you are or become lactose intolerant, try the following.

- Acidophilus milk
- Lactaid milk
- Unsweetened almond or soy milk

Bread/Starch Products:

- Generally, most starches are hard to tolerate, especially dense breads such as bagels, pasta, and biscuits. Breads are typically harder to tolerate and usually slow the rate of weight loss when consumed. Starches should be limited to less than 150 calories per meal (lifelong).

Other Foods:

- Nuts and seeds
- Legumes and beans
- Spicy foods
- Fried, high fat foods
- Sweets and high sugar foods
- Any dry, sticky, stringy, or gummy foods

Special Considerations for Duodenal Switch Patients

The Duodenal Switch (DS) and Single Anastomosis Duodenal-Ileostomy (SADI-S) procedures are intentionally mal-absorptive meaning that the food you eat will not be completely absorbed by the gastrointestinal tract (GI tract). Food will move rapidly through your small intestine and into your colon increasing the frequency of bowel movements. Due to the nature of these procedures it's important to consider the additional concerns that a sleeve or a bypass patient would not have.

As mentioned above, bowel movements are often more frequent, this may initially be loose stool; in some rare cases patients will have diarrhea. Some patients will eat and then will find that they need to defecate quickly. Some online forums encourage patients to purchase adult incontinence briefs, however this is for the unfortunate few who experience very loose stool or dumping syndrome.

Dumping syndrome may happen in this population, however it is generally *caused by high fat foods*; it is recommended that the diet remains high in lean proteins and low-carb vegetables. Signs and symptoms of dumping syndrome include but are not limited to: abdominal pain, cold chills, diarrhea, body aches and sweating.

Multivitamin needs will also increase due to intentional malabsorption, bariatric multivitamins are specialized for the DS and SADI-S patients with additional fat-soluble vitamins (A, D, E, and K). Fat is needed to absorb these vitamins and due to the lack of fat in the diet, these vitamins have a harder time of being absorbed. It is imperative that patients remain on a Bariatric multivitamin high in A D E and K.

Fatigue and weakness is a common side effect over the first 6-8 weeks. Energy comes back eventually, but it takes time and it is a gradual increase much like after an illness. If you feel lethargic and have a hard time walking for long durations, please continue to adhere to the post-operative movement plan but break up the amount of time spent walking into tolerable chunks. For example: instead of a ten minute walk; walking for 5 minutes at a time, taking a rest break and restarting to complete the remaining 5 minutes.

Vitamin and Mineral Needs

Sleeve Gastrectomy and Gastric Bypass (Roux-en-Y)

- After surgery you need bariatric vitamins for the rest of your life.
- All vitamins need to be chewable for 1 month. After the first month capsules are acceptable.
- Please do not take gummy vitamins since they are poorly absorbed, do not contain iron and are typically high in sugar; bariatric soft chews are an exception.
- Please do not use a multivitamin “patch,” vitamins and minerals are not absorbed effectively through the skin. You will be at risk for deficiencies within the first few months.
- Not taking vitamins puts you at risk for nutrient deficiencies.
- Over the counter men and women’s multi-vitamins do not contain enough of the necessary vitamins and minerals to meet your needs after weight loss surgery.

| |
|--|
| Bariatric Multivitamins |
| Vitamin A • 5,000-10,000 IU /day (1,500 - 3,000 mcg /day) |
| Vitamin C • 120 mg /day |
| Vitamin D3 (Cholecalciferol) • 3,000 IU /day (75 mcg /day) |
| Vitamin K • 90-120 mcg /day |
| Thiamin (Vitamin B1) • 12 mg /day |
| Folic Acid • 400-800 mcg /day |
| Vitamin B12 • 350-500 mcg /day |
| Biotin • 600 mcg /day |
| Zinc • 8-11 mg /day for Sleeve • 8-22 mg/day for Gastric Bypass |
| *For every 8-16mg of Zinc you need 1 mg of copper to prevent deficiency* |
| Copper • 1 mg /day Sleeve • 2 mg /day for Gastric Bypass |
| Iron (from a multivitamin or often taken separately for tolerance) • 18 mg /day for post-menopausal women or men with Sleeve Gastrectomy • 45 mg/day for most women or men with Gastric Bypass • 60 mg /day anyone with a history of anemia Remember: Do not take with Calcium |
| Calcium Citrate (from a multivitamin or separately) • 1,200-1,500 mg / day Must be in the form of Calcium citrate. Remember: Do not take with Iron |

*** Modified from ASMBS guidelines. Clinical practice guidelines for the perioperative nutrition, metabolic, and nonsurgical support of patients undergoing bariatric procedures – 2019 update: cosponsored by American Association of Clinical Endocrinologists/American College of Endocrinology, The Obesity Society, American Society for Metabolic & Bariatric Surgery, Obesity Medicine Association, and American Society of Anesthesiologists.

Vitamin and Mineral Needs

BPD with Duodenal Switch (DS) and Single-Anastomosis Duodenal-Ileostomy with Sleeve (SADI-S)

- The afore mentioned recommendations for The Sleeve Gastrectomy and the Gastric Bypass surgeries are intended for this audience as well.
- Since malabsorption is higher for those with the DS or SADI-S there are greater micro-nutrient requirements. Please note Vitamins A, D, E, and K, B12, and Minerals: Zinc, Iron and Calcium.
- Bariatric supplements for the DS and the SADI-S are generally going to be called “High ADEK” or “Multi-ADEK”

| |
|--|
| Bariatric Multivitamins |
| Vitamin A • 10,000 IU /day (3,000 mcg / day) *Needs to be water-miscible for best absorption |
| Vitamin C • 120 mg /day |
| Vitamin D3 (Cholecalciferol) • 3,000 IU /day (75 mcg / day) *Needs to be water-miscible for best absorption |
| Vitamin E • 15 mg /day *Needs to be water-miscible for best absorption |
| Vitamin K • 300 mcg /day |
| Thiamin (Vitamin B1) • 12 mg /day |
| Folic Acid • 400-800 mcg /day • 800-1,000 µ /day for a female, child-bearing age. |
| Vitamin B12 • 350-1000 mcg /day |
| Biotin • 600 mcg /day |
| Zinc • 16-22 mg /day *For every 8-16mg of Zinc you need 1 mg of copper to prevent deficiency* |
| Copper • 2mg /day |
| Iron (from a multivitamin or often taken separately for tolerance) • 45-60 mg /day • Remember: Do not take with Calcium |
| Calcium Citrate (from a multivitamin or separately) • 1,800-2,400 mg /day Must be in the form of Calcium citrate. Remember: Do not take with Iron |

*** Modified from ASMBS guidelines. Clinical practice guidelines for the perioperative nutrition, metabolic, and nonsurgical support of patients undergoing bariatric procedures – 2019 update: cosponsored by American Association of Clinical Endocrinologists/American College of Endocrinology, The Obesity Society, American Society for Metabolic & Bariatric Surgery, Obesity Medicine Association, and American Society of Anesthesiologists.

Vitamin and Supplement Recommendations

For the first month, chewable, dissolvable, or liquid supplements are absorbed best, gummy vitamins are not recommended. Multivitamins with iron need to be consumed separately (2 hours) from calcium supplements due to iron and calcium competition.

Iron Recommendations:

- Men or post-menopausal women require 18mg of iron per day
- Menstruating women or men undergoing Bypass or DS require 45 mg of iron per day
- Individuals who are anemic or women undergoing DS require 60 mg of iron per day

Calcium Recommendations: Most calcium supplements contain 500-600 mg each and it is anticipated that some calcium comes from your diet (dairy, almonds, and leafy greens).

- Sleeve and Gastric Bypass: 1200-1500 mg per day
- DS and SADI-S: 1800-2400 mg per day

Sleeve and Bypass Vitamins

- **BariActive:** 1 per day with 4 calcium plus vitamin D and a weekly B12 nasal spray
- **Bariatric Advantage Multi-EA Chewable:** 2 per day with 1-4 additional calcium
- **Bariatric Fusion Complete Chewable:** 4 per day separated with 1-2 additional calcium
- **BariMelts:** 3 per day with iron, 2-4 additional calcium, may need additional iron.
- **Celebrate Chewable CelebrateONE** with 18-45mg of iron: 1 per day with 1-4 additional calcium
 - **Celebrate MC 60** (60mg iron): 2 per day with 1-4 additional calcium
- **Opurity by UnJury:** 1 per day with 1-4 additional calcium

Duodenal Switch and SADI-S Vitamins

- **BariActive:** 2 per day with 6-8 calcium plus vitamin D and a weekly B12 nasal spray
- **Bariatric Advantage High ADEK:** 2 per day plus 4 calcium
- **Bariatric Fusion Multi-ADEK:** 4 per day with 2 additional calcium
- **BariMelts:** 3 per day with iron, 1 ADEK, 4 calcium, and 2-3 additional iron
- **Celebrate Multi-ADEK:** 2 per day, 4 calcium, and 1 iron

Signs & Symptoms of Nutritional Deficiencies: Protein, Fat, Vitamins & Minerals

| | Symptoms of Deficiency | Treatment |
|------------------|--|--|
| Protein | Weakness, fatigue, hair loss, weak immune system, loss of muscle mass, may be related to low: iron, B12, folate levels, zinc, thiamin, and B6. | Protein goal: 60-95 grams per day for a women 80-110 grams per day for a man Focus on eating protein first at every meal. |
| Carbs | Low energy, low blood sugar. | Consistent carbohydrate intake; initially focus on fruit, then complex carbohydrates after one year. |
| Fats | Dry and damaged skin and hair, hormone imbalances, and poor absorption of fat-soluble vitamins (A, D, E, K) | 3 small servings per day: 1 tablespoon olive oil salad dressing, 2 tablespoons of avocado, 1 tablespoon of peanut butter or ½ ounce nuts, fish oil supplement. |
| Vitamin D | Osteoporosis or bone softening, cramps. Note: sunlight on the skin produces Vitamin D in the body, there are more Vitamin D deficiencies in colder climates. | If blood levels are less than 20, you will get a weekly prescription of 50,000 IU. If levels are greater than 20, take 4,000-6,000 IU Vitamin D. Good sources: dairy products, fatty fish, eggs, & fortified cereals. Note: it is difficult to resolve deficiency with food alone. |
| Calcium | Diminished bone density, cramps, low Vitamin D, leg and muscle pain, brittle and weak nails. | 500-2000 mg calcium citrate. Good sources: dairy products and green leafy vegetables. |
| Folate | Anemia, diarrhea, mouth sores, swollen tongue, gray hair, stomach ulcers, and nerve damage. | 1,000 mcg orally if severe. Take B complex for prevention. Good sources: fortified cereals, leafy green vegetables, beans, and peas. Alcohol interferes with absorption. |
| Iron | Anemia, weakness, fatigue, pale, short-of-breath, rapid heartbeat, dizziness, leg cramps, ice eating or pica, impaired learning, and decreased work performance. | If severe, a prescription for 325 mg ferrous sulfate 3-4 times per day. Normally you will take 40-60 gm daily in your multivitamin; take on empty stomach with Vitamin C source (citrus juices). Animal proteins are the best food sources. |

| | Symptoms of Deficiency | Treatment |
|------------------------|---|---|
| B1 (Thiamin) | Loss of appetite, dizziness, cramps, difficulty walking, sleep disturbances, irritability, numbness, confusion. Without treatment can result in legs swelling, nerve & heart damage, and potential death. | Take additional B complex vitamin for prevention, meat & nuts good food sources. Alcohol interferes with absorption. When there is a severe deficiency, patients are given 100 mg by IV at hospital, then 50 mg orally. |
| B6 (Pyridoxine) | Rash, anemia, nerve damage, muscle weakness, depression, and difficulty concentrating. | If low: 50 mg per day. Good sources: beans, nuts, wheat bran, meat, dairy & eggs are good food sources. |
| B12 (Cobalamin) | Fatigue, anemia, numbness and tingling in hands and feet, heart palpitations, trouble with balance, confusion, and depression. Without treatment can lead to permanent nerve damage, memory loss, and dementia. | 500 mcg daily sublingual tablet, a monthly shot, or a nasal spray. Good sources: Animal products such as meat, fish, eggs, yogurt, and milk. |
| Zinc | Poor wound healing, loss of appetite, changes in sense of smell and taste, impotence in men, hair loss, rash. | 60 mg twice a day until levels normal. Good sources: meat, liver, dairy, beans, shellfish, eggs, and peanuts. |
| Vitamin A | Night blindness, dry hair or skin. | A prescription for 30,000 IU per day for 1 week. Good Sources: liver, dairy products, fish, sweet potatoes carrots, dark colored fruits and leafy vegetables. |
| Water | Dry skin and mouth, loose skin, thirst, difficulty swallowing, diarrhea, darker urine, dizziness, cramps, heat exhaustion. | Drink at least 6-8 cups or more daily until symptoms disappear |

Bariatric Portion Plate

Follow this plate method as you lose weight prior to your surgery and during your maintenance phase post-surgery. Using a 7-inch plate ensures that you are filling your stomach with high fiber vegetables and fruit and that you are staying full with protein.

Remember: carbohydrates are your body's first choice for fuel, if you neglect carbohydrates and eat a significant amount of protein, your muscles will be maintained and your body will use fat as an energy source. Please keep your protein intake high to lose weight as well as to prevent weight gain while you are in your maintenance phase.



Nutrition Summary

Calorie, protein, and fluid needs vary based on lifestyle, medical history, and activity level. Check in with your dietitian for your needs. These are general guidelines:

Calories:

You do not need to count calories if you are following a meal plan. However, if you are frequently consuming high calorie liquids, sauces, gravies, or condiments like mayonnaise, you will likely exceed your calorie goal and delay weight loss. Your portions are initially small; therefore, calorie intake is low but will gradually increase with time.

- | | |
|-----------------------------------|--|
| • 300-600/day (month 1 and 2) | Portion per meal: 2 Tablespoons- ¼ cup solids |
| • 400-800/day (months 3-6) | Portion per meal typically: ¼ - ¾ cup solids |
| • 600-1000 /day (months 6-12) | Portion per meal typically: ¼ -1 cup solids |
| • 1000-1200/day (1 year-lifelong) | Portion per meal: ½-1 cup or off of a 7-9 inch plate |

Protein:

- 60-95 grams per day for a women
- 80-110 grams per day for a man

Fluid: 64 ounces of water per day. Avoid drinking fluids with meals and wait 30 minutes after.

General: Follow a balanced meal plan: 3 meals per day with adequate protein, vegetables, and fruit. Avoid high calorie foods, foods that are high in carbohydrates, and foods high in added sugars, and fats.

Behaviors:

- Use a 7 inch portion plate for meals.
- Practice mindful eating: sitting at the table, chewing slowly, paying attention to taste, and your level of hunger.
- Stop eating when you are satisfied.

Vitamins: Bariatric vitamins must be taken lifelong. If you do not take Bariatric vitamins or start taking a regular multivitamin instead, you are at a high risk of vitamin deficiencies which can be detrimental to your well-being.

Exercise and Weight Loss Surgery

Exercise is an extremely important part of your treatment before and after surgery, for both overall health and for weight loss. During your initial evaluation, the exercise physiologist will provide an exercise plan for before and after surgery. If you need physical therapy, you will be referred for that service as well, both services require a physician's order. Services for an exercise physiologist are not covered by insurance; physical therapy is usually covered depending on the diagnosis.

Please call the exercise physiologist at 847-356-4759 at Vista Surgery Center in Lindenhurst to schedule your fitness evaluation. A 3-month post-op appointment is also recommended to help you maintain your routine and create a future exercise plan.

Before Surgery

- Begin a weekly routine of exercise; whether it is walking, biking, swimming, or going to the gym.
- Do warm up exercises and stretches daily.
- Add extras to your day
 - Take the stairs down once a day at work.
 - Park further back in the parking lot when going to the store.
 - Get up during commercials if you are watching television and put away dishes or laundry. Fold the clothes standing while watching television.
- Set one large goal with several small steps on the way.
 - Pedometers are a great tool to keep you on track
 - Example: I want to walk 1 mile.
 - This week I will walk 15 minutes every day.
 - Next week I will walk 20 minutes 4 times.
 - I will add 2 more minutes per week until I reach 1 mile.
- Keep track of your exercise (page 67 and 68)
 - How often (frequency)
 - How long (time/duration)
 - Type of exercise (aerobic, strength)
 - Pace on the treadmill, weights used
 - How hard you are working out (intensity)
 - Take your heart rate
 - How heavy are you breathing?
- Some insurance companies will require you to submit proof of exercising.

After Surgery

Generally, you should resume a walking routine immediately after surgery. Walking can be done outside, on a treadmill, at the mall, or using walking videos. Most people can ride a stationary bike beginning 2 weeks after surgery. Please do not swim or do water aerobics until four weeks post-op and all incisions are healed. Do not do any heavy lifting, pushing, or pulling during the first four weeks, this includes vacuuming, shoveling, and mowing the lawn.

Remember to make exercise simple, realistic, and fun. If you are at a gym or at home using a bike or treadmill, put a TV in front of you, or listen to music while walking outside. Find a partner to keep you accountable to exercise regularly.

Exercise Basics

FITT

Frequency = How often.

Example: 4-6 x week.

Intensity = How hard you are working out.

Based on a percentage of your target heart rate, or how short of breath you are.

Type = What mode of exercise you are using.

Examples: walking, biking, swimming, dance, weights.

Time = How long you exercise per day.

This does not have to be all in one session, it can be broken up over the day.

Your goal is 30-45 minutes.

Types of Exercise

Warm Ups: These exercises help to raise the body temperature and heart rate before a longer, harder duration of exercise is performed.

Aerobic Exercise: Longer duration exercise to help strengthen the cardiovascular/pulmonary systems and burn calories.

Strength Training: Using weights increases overall muscle strength and therefore helps in raising metabolism and burning calories.

Cool Downs: Stretches to keep you limber and help prevent injuries.

Warm Up Exercises

Why Warm Up?

Warming up prior to any physical activity produces a number of beneficial results, but its main purpose is to prepare the body and mind for more strenuous activity. One of the ways it achieves this is by helping to increase the body's core and muscle temperature. By increasing muscle temperature, the muscles become loose, supple, and pliable.

An effective warm up also increases both heart and respiratory rates. This increases blood flow, which in turn increases the delivery of oxygen and nutrients to the working muscles. All this helps to prepare the muscles, tendons, and joints for more strenuous activity.

Goal: 5 - 20 repetitions of each warm up exercise. Start with the lowest number of repetitions, then depending on your fitness level, increase the number of repetitions over the next 1-4 months.

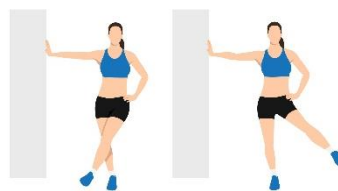
Below are a few examples, additional warm-ups will be demonstrated during your fitness evaluation.



Leg Swings front/back



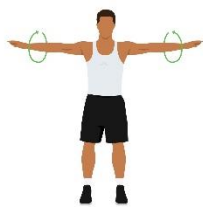
Marching in Place 10 secs



Sideway Leg Swings



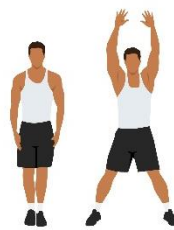
Arm Scissors



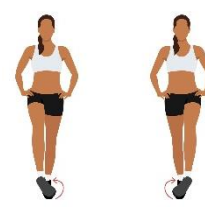
Arm Circles



Trunk Rotation



Jumping Jacks / arms



Ankle Circles

Aerobic Exercise



Treadmill



Stairs



Stationary Bike



Elliptical



Swimming

Choose the mode of exercise that you enjoy the most. The easiest program for most people to begin is a walking routine. Start off slowly and try to make one small change each week towards your goals. Swimming or bike riding might be a good alternative for those with knee pain.

Strength Training

Upper Body



Wall push up



Triceps Kickback



Bent over row



Bench Press



Shoulder Press

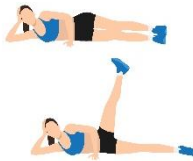
Lower Body



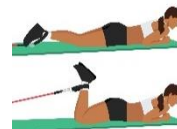
Hip sidekick



Hip Extension



Hip Abduction



Leg Curl



Squats

Strength training (AKA weight lifting) should be done 3 - 4 times per week with no more than 2 days in a row to allow your muscles to rest. When beginning to lift weights, remember that you should begin with low weight, for some this is only 3 - 4 pounds with 8 - 10 repetitions. Your goal will be to work up to 2 sets of 15 repetitions, usually over a period of 5 - 6 weeks. If you become very sore, you may need to back off slightly. The idea is to be fatigued by the end of your workout, but not extremely sore the following day.

Stretching



Hamstring stretch



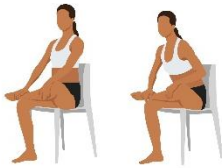
Calf Stretch



Glute Stretch



Quadricep Stretch



Hip Stretch



Low back stretch



Arm Stretches

Stretching is equally as important as all the other components of exercise. This activity can prevent injuries and soreness, as well as help gain flexibility. If you have knee or back pain, stretching frequently will help to loosen your muscles and reduce discomfort. Each stretch should be held for at least 15 - 20 seconds and done twice per stretch. Bouncing while you are stretching is not recommended, instead; hold the stretch. If you feel your muscle relax you can push a little bit further until you feel it tighten up again, then hold the new stretch.

Situations Where Exercise May Need to Be Stopped

Exercise is always good, however there are risks. Take things slowly when beginning a new exercise routine, baby steps are ok to prevent injuries and extreme soreness. Should you have any of the following symptoms stop exercising. If the symptoms persist get help or medical attention.

- Lightheadedness, dizzy, clammy skin
- Shortness of breath: more than what you are used to
- Leg pain or weakness, especially in the calf muscles
 - There is a potential risk for blood clots after any surgery
- Onset of angina or chest pain or pressure with exercise
 - Anywhere from jaw to belly button
- Irregular heartbeat that you have not noticed before
- Palpitation or racing heart rate
- Blood sugars that are over 300 or lower than 70
- Extreme fatigue or soreness that lasts longer than 24 hours

Your Psychological Evaluation

Frequently Asked Questions

What is a bariatric psychological evaluation?

A bariatric psychological evaluation is an individual appointment with a licensed clinical psychologist to make sure you are ready mentally for weight loss surgery. The purpose of the evaluation is to:

- Identify your psychosocial strengths & potential challenges to surgery
- Evaluate your understanding of risks & benefits of bariatric surgery
- Make sure you have realistic goals & outcome expectations
- Assess for ability to make the necessary lifestyle change
- Assess your understanding of the behavioral changes necessary after surgery
- Obtain a social, educational & work history, psychiatric history, diet & weight history
- Identify known co-morbid medical problems

When should I have the psychological evaluation?

Once the evaluation is completed, it is only valid for 6 months. If your scheduled surgery is more than 6 months from the date of the evaluation, you will not be able to have the surgery without having a second evaluation which your insurance may or may not pay for.

How do I prepare for my psychological evaluation?

The best way to prepare is to study the bariatric guidebook. You need to know about your surgery and what the risks are. You also need to know details about the bariatric diet. Try to get a good night's sleep and eat a healthy breakfast before your appointment.

How do I pay for the evaluation?

Check with your insurance company to find out if bariatric psychological evaluation is covered. Please check with your insurance company and if necessary, please be prepared to pay for any out of pocket costs.

Can I have someone with me?

You may not bring anyone into the interview with the psychologist or have anyone help you fill out the written part of the evaluation. If you need an interpreter, one will be made available.

What happens during the evaluation?

You will have a one-on-one interview with the psychologist in which you will discuss your life history, physical and mental health history, weight and eating history, and things you should know about the surgery, such as risks and the bariatric diet. You will complete a brief true-false personality questionnaire. Additional tests or consultation with your therapist may be done on a case-by-case basis. The entire process on average takes less than 2 hours.

How long does it take for my doctor to get the results?

The written personality questionnaire takes time to score and get the computerized report. A written report will be sent to you and your surgeon about 2 weeks after your appointment. You should not schedule a follow-up with your surgeon prior to this unless told to do so.

Compassionate Goal Setting

- Goals should be:
 - **Specific**
 - **Measurable**
 - **Attainable**
 - **Realistic**
 - **Time-Oriented**
- Tips for compassionate goal setting:
 - Try and stay positive: say what you will do, rather than what you won't.
 - Write down your goals and keep them in a place where you can see them.
 - Consider whether your goals are realistic.
 - When you get off track, ask yourself what you did well rather than focusing on the negative. Think about what you can do differently next time.
 - Whatever you do, don't use slipping up as an excuse to give up!
 - Reward yourself when you achieve a goal (not with food).
 - Keep a log of all the goals you have achieved.
 - Be flexible! Periodically evaluate and adjust your plan.
 - Set up a support system.
- Ways to tame your inner critic (that inner voice that can say mean things) when you are being hard on yourself:
 - First, recognize that critical voice.
 - Don't take the critical beliefs seriously.
 - Consider whether you would say this to a loved one.
 - Consider whether someone you respect would say this to you.
 - Disengage from the inner critic.
 - Fight the critic, in any way that works for you.
 - Use humor.
- Remember, shame and blame doesn't work, kindness and self-nurturing is far more effective to keep us on track with our goals.

Emotional Eating

Whenever you eat when you're not hungry, you are eating emotionally. Whether it's to numb out, de-stress, deal with boredom or grief or anger, you are using food as a drug. Some people say it's because they love food. However, when you love something, you take time with it and are present for every moment of the enjoyment. Emotional eaters tend to stuff the food in their mouths mindlessly while multitasking and end up feeling sick and uncomfortable: this is suffering, not love.

What do you do to avoid emotional eating? We pay attention to what our bodies want. We eat when we are hungry, taking time to taste and enjoy the food without multitasking, and stop eating when we are full. We choose foods that will feel good in our bodies: foods that will make us feel energized and alive rather than spaced out and bloated.

When you want to eat and you're not hungry, you need to look at what you are really yearning for. What will really make you happy? What do you really value? Research shows that happiness is not related to being thin, rich or perfect.

Some individuals eat to numb out and not experience feelings, regardless of how much you don't want to; it's healthier to pay attention to the feelings and allowing yourself to feel them. Many times, we think we can't handle the feelings but if we accept them with compassion instead of pushing them away with food, we begin to realize that feelings won't destroy us. It's usually our own beliefs about the situations or feelings that cause us more grief than the feelings or situations themselves. For example, if someone is afraid to feel anger or loneliness, they might have an underlying belief that the feelings will break them down (which it won't), or that they don't have the right to feel this way. The only way to get past the emotion is to feel it, which can't be done while using food.

Conquering emotional eating is especially crucial for bariatric surgery patients because it can make the surgery ineffective and/or harm you physically. If you need help with emotional eating, come to our support groups or contact the psychologist at 847-356-4763 for a consultation. We are here to support your success.

Stress Management

Facts about stress:

- Stress is the way we respond to an event, not the actual event or situation. In other words, it's not what happens to you in life; it's how you handle it.
- We all need some stress to keep us from being bored with life, however too much leads to becoming overwhelmed and may cause problems.

Signs of stress:

- Physical
 - Rapid heart rate and breathing
 - Increased blood pressure
 - Sweating
 - Muscle tension
 - Insomnia
- Emotional
 - Depression
 - Anxiety
 - Irritability
- Cognitive
 - Negative attitude
 - Difficulty concentrating
- Behavioral
 - Overeating
 - Procrastinating

Ways to manage stress:

- Avoid unnecessary stressful situations
- Alter situations you can't avoid
 - Change your environment
 - Be assertive
 - Communicate feelings clearly
 - Manage time better
- Adapt your thinking and your own actions
 - Focus on the positive
 - Change your self-talk
 - Exercise
 - Get adequate sleep

- Eat healthy
- Practice relaxation or meditation
- Attend a support group or seek counseling

Mindfulness Relaxation Breathing Exercise

Regular practice of relaxation for 20 minutes daily can produce the ability to remain relaxed in almost any situation in your life. This is a great way to manage stress and maintain good physical health.

- Find a quiet place where you won't be disturbed.
- Sit in a comfortable, upright position with both feet on the floor.
- Set a timer for 20 minutes.
- Breathe comfortably through your nose. Let yourself become aware of your breath. Begin counting from 1 to 10. Each time you breathe out count as one breath cycle. When you get to 10, begin again and keep repeating.
- As you are breathing, notice any muscle tension and allow it to let go.
- Don't worry about achieving a deep level of relaxation. Allow internal and external distractions to be present and let yourself relax at your own pace.
- Expect distracting thoughts to occur, when they do; observe and come back to your breathing.

What to Expect During your Hospital Stay

Day of Surgery

When you arrive at Vista Medical Center East from Sheridan Road, go to the Same Day Surgery entrance. The same day surgery unit prepares patients for surgery which includes registering, changing into a patient gown, and getting an IV started. Your nurse and your anesthesiologist will interview you then escort you to the operating room where you will see your surgeon.

Your family can wait in the surgical waiting lounge near same day surgery. They should register with the volunteer, so the surgeon knows who to speak to afterward.

After Surgery

Following surgery, you will be transported to a postoperative recovery room. During this time, pain management is typically started through an IV and your vital signs will be carefully monitored. Once your breathing and vital signs are stable, you will then be taken to a hospital room where only 1-2 family members will be allowed to see you.

Pain Management

Bariatric patients often experience the most discomfort on the first day. The goal is to manage your pain, when you are not in pain you are able to breathe easier, move around quicker, and rest better. You will be asked to use a pain scale to rate the intensity of your pain. On a scale of 0-10, "0" indicates you are not feeling any pain and "10" means the worst pain you have ever felt; the goal is to have your pain less than 4.

Side note: You may feel pain in your back and shoulders; this is common and caused by the gas used during laparoscopic surgery.

Activity and Circulation

Activity early in your recovery is very important; movement helps to prevent pneumonia, blood clots, gas, and constipation. You will be expected to get up the day of surgery and walk within a few hours after surgery. If you do not feel stable to walk, please do leg pumps on the edge of the bed.

Gastrograffin Swallow Study

The morning after surgery you will be transported to Radiology for an x-ray of your stomach. You will be given barium and a liquid contrast dye to drink slowly and then an x-ray will be taken. The Gastrograffin Swallow Study is to verify that your staple line is intact (indicating that there are no leaks), there is no excessive swelling, fluid is exiting the new anastomosis (*connection from the stomach to the intestines with the bypass, SADI-A, and DS procedures*), and that the bowels are working.

Diet Progression

The first day you may be given small amounts of clear liquids. For the first two days, your dietary intake will consist of sugar-free gelatin, broth, diluted apple juice, and sugar-free popsicles. Remember to only sip 1 oz every 15 minutes for the first few days.

Breathing Exercises

As you are waking up from surgery, you will be asked to take deep breaths and cough, this will help you rid your lungs of the anesthesia. Respiratory therapy will instruct you on how to use an incentive spirometer. Use the incentive spirometer to expand your lungs and take deep breaths every one to two hours when you are awake. Deep breathing and coughing are excellent methods to prevent lung complications. Hold a pillow against your stomach (incision sites) while coughing or sneezing.

Note: If you have asthma, bring your inhalers with you to the hospital.

Discharge Day

Bariatric surgery patients may be discharged from the hospital on the second or third day if pain management is going well, there is no sign of infection, and oxygen saturation is fine. You must also be able to maintain an adequate fluid intake and activity before discharge.

Pain medications and surgical incisions make it inadvisable to drive after bariatric surgery. Schedule arrangements for transportation to and from the hospital since you will not be allowed to drive yourself home. You will receive written discharge instructions regarding medications and diet from the nurse and the dietitian.

Your first follow-up appointment with the surgeon will be 7-10 days after surgery. Your surgeon will check your incisions and remove the drain if you were discharged with it in place.

Caring For Yourself at Home

There are a variety of things you need to know for your safety, recovery, and comfort:

Control Your Discomfort

- Take your pain medication as prescribed, try to ween yourself off as soon as possible.
- Get up and move: the earlier you start walking and getting back into your normal daily routine the better you will feel.
- Follow the diet as instructed. If you have questions call the dietitian at 847-360-2439 (email: janine.pruett@amhealthsystems.com) or call your surgeon at 847-856-2525 (Dr. Siegel with Lake County Surgeons).
- Do not lift anything over 20 pounds, do strenuous exercise, or have sexual relations for at least 4 – 6 weeks after surgery. You may develop a hernia or break open an incision if you lift anything heavy. This includes shoveling snow, gardening, and lifting grocery bags, small dogs, and children.

Medication

All oral medication must be in liquid form or crushed for the first month, if crushed please mix into a protein shake or yogurt. All patients get a prescription for 3 months of a Proton Pump Inhibitor (PPI) reduce stomach acid and risk of ulcer formation.

Exercise

- Increase activity as tolerated and directed by exercise physiologist.
- Continue walking at home and gradually increase as tolerated.
- Warm up exercises and stretching should begin about 3-5 days after surgery.

Eating Techniques

- Try to consume 50-60 grams of protein from protein shakes daily.
- Eventually, consume 3 meals per day, setting aside 30 minutes to eat each meal.
- Stop eating before you feel full.

Follow-up

- Follow-up with the surgeon is approximately 1.5 weeks, 1 month, 3 months, 6 months, 9 months, 1 year, 18 months, and then yearly.
- Follow-up with the dietitian as needed (in the surgeon's office on Fridays is ideal).
- Follow-up with the exercise physiologist is at 3-4 months after surgery or as desired.

Recognizing & Preventing Potential Complications

Signs of Infection

- Increased swelling and redness at incision site
- Change in discharge color, amount, or odor
- Increased pain
- Fever greater than 100.5°F

Prevention of Infection

- Take proper care of your incisions as directed.
- Drink your protein shakes and take your bariatric multivitamins; they both help with wound healing.

Blood Clots in Legs

Surgery may cause the blood to slow and coagulate in the veins of your legs, creating a blood clot AKA Deep Vein Thrombosis. Therefore, blood thinners are sometimes taken after surgery when you go home. If a clot occurs despite these measures, you may need to be admitted to the hospital to receive intravenous blood thinners.

Signs of blood clots in legs

- Swelling in the thigh, calf, or ankle that does not go down with elevation.
- Pain, heat, and tenderness in calf, back of knee, or groin area.

Prevention of blood clots

- Ankle pumps (raising your feet up and down)
- Walking
- Compression stockings
- Blood thinners

Pulmonary Embolus

An unrecognized blood clot could break away from the vein and travel to the lungs. This is an emergency and if you suspect this is the case, you should call 911.

Signs of Pulmonary Embolus

- Sudden chest pain
- Difficult and/or rapid breathing
- Shortness of breath
- Sweating
- Confusion

Prevention of Pulmonary Embolus

- Same as preventing blood clot in legs – call your physician promptly

Bowel Issues

Diarrhea Management:

- Foods that are high in fat, added sugars, or contain sugar alcohols such as mannitol or sorbitol (frequently found in gum/mints) may cause diarrhea.
- After surgery some people can no longer tolerate milk; try soymilk or treated milk such as Lactaid®, DairyEase®, or FairLife®.
- Yogurt or probiotic supplements can help increase the number of “good” bacteria to prevent diarrhea.

Constipation Management:

- Increase fiber as able depending on the dietary stage you are on.
 - During the first month eat mashed fruit, vegetables, and beans.
 - Try adding 2 tbsp of wheat bran to unsweetened applesauce. Warm in microwave or eat cold.
- Use dietary fiber supplements such as Citrucel® or Benefiber®.
- Sip water or other low-calorie beverages, at least 6 – 8 cups per day.
- Walk daily.

Excessive Gas:

- Sip liquids slowly and avoid carbonated beverages and straws.
- High fat foods, dairy products, and sugar alcohols may also cause gas.
- Eat yogurt or take a probiotic supplement; many bariatric vitamin companies also sell probiotics formulated for bariatric patients.
- Try over-the-counter products such as Beano®, Gas X®, Maalox®, or Devrom®.

When to Call the Doctor

- Drainage that is cloudy or foul smelling
- Fever over 100.5° F
- Pulse (heart rate) over 115 beats per minute
- Pain, swelling, or redness in the legs (potential for blood clot)
- Abdominal pain with nausea and vomiting
- Hiccups or abdominal pain lasting more than 2 hours
- Diarrhea past the 7th post-op day
- New onset of back, chest or left shoulder pain
- Urinary pain, burning, and frequency

Medications to Avoid After Bariatric Surgery

Marginal ulcers represent nearly half of all postoperative complications and occur in as high as 5% of gastric bypass patients. Smoking and the use of nonsteroidal anti-inflammatory agents (NSAIDs) are the top offenders. Many family physicians, orthopedists, and internists do not always understand the need to avoid these medications after bariatric surgery and may mistakenly assure you that it is okay to use these drugs.

When you need pain management do not take Aspirin, Advil® (Ibuprofen), Motrin® (Ibuprofen), or Aleve® (Naproxen). For minor pain or headache, it is recommended that you use Tylenol® (Acetaminophen). When it comes to cold medications and pain relief brands – always read the list of ingredients.

Marginal ulcers are serious, with nearly one-third needing a surgical repair. NSAIDs can irritate the stomach or impair healing and lead to an eroded hole or ulcer – most often where the stomach pouch has been stapled or sutured. Post-gastric bypass patients with marginal ulcers typically have early symptoms including abdominal pain and burning, nausea, and vomiting.

Steroids taken orally delay healing in the stomach and impair the stomach lining's ability to heal and form a protective layer between the stomach wall and gastric acid. This can lead to an ulcer, bleeding, or perforation. Examples of steroids are Prednisone, Medrol®, Decadron®, Depo-Medrol®, and Solu-Cortef®.

Oral steroids should be avoided the first 6 weeks after surgery and then if required should be accompanied by a proton pump inhibitor (PPI) medication for as long as 30 days after treatment has ended. Steroid injections into a joint or the back don't affect the stomach so don't require taking PPI's. Examples of PPI medications are Prilosec®, Prevacid®, Aciphex®, Protonix®, Nexium®, and Zegarid®. Some medications classified as antacids that are not PPI's and are not acceptable protection include Pepcid®, Zantac®, and Tagamet®.

Medications for the treatment of osteoporosis can result in ulceration of the esophagus or stomach if these medications do not empty out of the pouch quickly. Bariatric surgeons often advise patients not to use them unless all other methods of treatment of osteoporosis have failed. Examples of these drugs are Fosamax®, Boniva®, Reclast®, Aclasta®, and Actonel®. If needed, discuss monthly or yearly dose versions.

Medications for the treatment of Diabetes. Certain medications may cause Metabolic Acidosis after surgery to include: Jardiance®, Farxiga®, and Invokana®. It is advised to discontinue using at least three days prior to surgery, only to restart once the diet is back to normal / baseline; which would be at approximately the year mark.

The following is a list of common medications you should avoid for the rest of your life. If it is necessary that you take any of these, you must take a Protein Pump Inhibitor (PPI) with them to protect the stomach from ulcers (Nexium®, Prilosec®, Protonix®, or Prevacid®).

- Bisphosphonates: Fosamax[®], Boniva[®], Reclast[®], Aclasta[®], and Actonel[®].
- COX-2 inhibitors: Celebrex[®]

- **Non-Steroidal Anti Inflammatory Agents:**
 - Aspirin: Aspi-Low[®], Bayer[®], Bufferin[®], Durlaza[®], Ecotrin[®], Ecpirin[®], Halfprin[®], BC Powder[®], Vazalore[®], ZORprin[®]
 - Diclofenac: Cambia[®], Zipsor[®], Zorvolex[®], Cataflam[®], Voltaren[®], Voltaren-XR[®], Dyloject[®]
 - Diflunisal, brand name: Dolobid[®]
 - Etodolac: Lodine[®], Lodine XL[®]
 - Fenoprofen: Nalfon[®], Profeno[®]
 - Flurbiprofen: Ansaid[®]
 - Ibuprofen: Addaprin[®], Advil[®], Bufen[®], Genpril[®], Haltran[®], Ibuprohm[®], Ibu-Tab[®], I-Prin[®], Midol[®], Mortin[®], Medipren[®], Nuprin[®], Profen[®], Vicoprofen[®] (hydrocodone and ibuprofen), Combunox[®] (oxycodone and ibuprofen)
 - Indomethacin: Indocin[®], Indocin SR, Tivorbex[®]
 - Ketoprofen: Oruvail[®], Orudis[®], Actron[®]
 - Ketorolac: Sprix[®], Toradol[®]
 - Mefenamic Acid: Ponstel[®]
 - Meloxicam: Mobic[®]
 - Nabumetone: Relafen[®]
 - Naproxen: Aleve[®], Anaprox[®], Anaprox DS[®], EC-Naprosyn, Naprosyn[®], Naprelan[®], Prevacid NapraPAC[®]
 - Oxaprozin: Daypro[®]
 - Piroxicam: Feldene[®]
 - Sulindac: Clinoril[®]
 - Tolmetin: Tolectin[®], Tolectin DS[®], Tolectin 600[®]

Frequently Asked Questions

1. How long is the actual process from the first surgeon visit to when surgery is scheduled?

Generally, it takes about 2 - 3 months from the first visit to the day of surgery. Some insurances call for a 3 - 6 month period of a medically supervised weight loss attempt prior to being qualified for surgery.

2. How long does surgery take?

The gastric bypass and sleeve take several hours or more depending on surgical technique used and need for addition surgery such as a hernia repair.

The DS and SADI-S surgeries are generally completed after a sleeve therefore making the surgery relatively short. If the DS is not completed after a pre-existing sleeve gastrectomy, it is a very complex surgery and requires more operating time.

3. Is my procedure reversable?

Most surgeons would say that the gastric bypass is not completely reversable, though some revisions are performed as necessary. The Sleeve, the DS, and the SADI-S are irreversible due to the physical removal of stomach.

4. Will surgery cure my obesity?

Rapid weight loss occurs during the first year to 18 months. After that, weight loss slows and most patients have to watch what they eat and exercise in order not to regain weight. Eating too many calories, high fat foods, foods high in sugar, and drinking alcohol can result in weight gain.

A small weight regain may be normal, but huge gains usually can be avoided with support, education, effort, and careful attention to living a healthy lifestyle. As with most successes, you need to create a long-term plan and follow it. Weight loss surgery is not effortless nor does it last forever without serious commitment to the new way of life you created.

5. How long do I have to crush my medications after surgery?

Generally, you will need to crush your pills or get them in liquid or chewable form for one month after surgery. You will meet with the pharmacist for guidance.

6. Will I have a problem with constipation after surgery?

After surgery you will be eating significantly less food (including fiber) and you will be getting iron in your multivitamins. Due to lack of fiber and increased iron intake, some people have problems with constipation. Focusing on eating high fiber vegetables, fruit and beans can help.

Using a soluble fiber supplement is another helpful alternative. Remember to consume adequate fluids to keep the intestines mobile.

7. Why do I have to take bariatric multivitamins for life?

To understand why you must take multivitamins for life, you need to understand some of the gastrointestinal tract's anatomy and physiology: The stomach produces gastric acid (hydrochloric acid) which helps to break down proteins and absorb nutrients, the small intestine absorbs most vitamins we consume.

The sleeve gastrectomy removes a significant amount of the stomach that produces the gastric acid; gastric acid helps the body to absorb B12, iron, and calcium.

Gastric bypass involves rerouting the intestine to avoid the first part of the small intestine. This section normally absorb iron, calcium, magnesium, B vitamins and vitamin C.

The duodenal switch and the SADI-S procedures involve removing $\frac{3}{4}$ of the stomach avoids the first two sections of the small intestines: the duodenum and most of the jejunum which increases the risk of deficiency because there is not enough gastric acid and little intestine to absorb the nutrients. Additionally, due to the very short common channels (which allow the nutrients to be absorbed), there is a higher likelihood for malnutrition. A supplement with additional vitamins: A, D, E, and K is recommended for life.

8. How much do supplements cost?

Depending on personal preferences and sales, bariatric chewable vitamins can range in price from \$30 (example: all in one multivitamin) to \$75 per month (example: soft chews). Bariatric multivitamin pills tend to run about \$15-16 each month.

9. How do I know if I'm getting enough protein?

Eat protein first, then vegetables, then carbohydrates (fruit/grains) at every meal. It is important to keep track of all the foods and beverages you take in each day along with how much protein each item contains. Use food labels and the protein table to help determine the amount of protein in each food item (look carefully as the serving size to adjust protein amount accordingly).

10. What should I do if I cannot tolerate solid foods?

Reduce how fast you are eating (wait 30-60 seconds between each bite), take tiny bites (pea or dime size) and decrease the portion size that you are trying to eat. Assess if you are eating a food that is more advanced than you are ready for (example: a gas-producing vegetable before 3 months).

11. What should I do if I have problems with vomiting?

Vomiting is most often caused by overeating, eating too quickly, eating inappropriate foods, not chewing food adequately, or dehydration. Pay attention to these guidelines to prevent vomiting. Episodes of occasional vomiting are common initially and usually improve with time. If vomiting continues for more than 24 hours, call your doctor because this may indicate your stomach outlet is blocked or you have a stricture.

12. Why do I feel tired and sluggish, and what should I do?

The two main culprits of lethargy are dehydration and not eating enough protein. Not eating enough in general can cause these feelings, so make sure you are not skipping meals. If you are several months or more from surgery, you could also be lacking iron or B12 and may need to take additional supplements. Sometimes a lack of sleep, depression, and stress, can cause you to feel sluggish as well.

For DS and SADI-S patients, there is an initial period of feeling very weak and tired; you can expect to start feeling more energy around 6-8 weeks after surgery.

13. What can I do if I stop losing weight?

Eventually you will stop losing weight. If you stop losing weight before you have reached your anticipated goal weight, you should evaluate your activity level and food intake. Some ways to promote weight loss include increasing the intensity of your physical activity, adding resistance weight training, and by choosing lower calorie foods. Keep in mind that you are at risk for regaining weight; the surgery is not a cure for obesity. If you do begin to gain weight post-op, immediately evaluate what you are eating and your activity level. You may try following the 2 week pre-op diet as a 'restart'.

14. If I exercise before and after surgery, will I still need surgery to get rid of excess skin?

Exercising helps, but for most people there will be some loose skin. Factors that alter skin elasticity include amount of weight lost, age, exercise level, nutrition, and where excess weight was stored prior to surgery. Strength training and the use of supplemental collagen can help.

15. What is 'grazing'?

Grazing is nibbling small amounts of food or sipping beverages with calories here and there over the course of the day. You are recommended to eat three to five small meals within 30 minutes. Eating enough at mealtimes, and eating planned snacks when necessary, will help you resist grazing. Grazing can easily make your weight creep up.

16. Will I ever be able to eat my favorite sweet foods again?

Every individual is different when it comes to their tolerance for sweet foods. However, if you can tolerate sweets and desserts, it is not necessarily a good thing. Sweets are high calorie foods with little nutritional value and can easily lead to weight gain if consumed. The best approach is to develop new favorites that are lower in calories than the traditional sweets and enjoy in moderation.

17. How much should I be drinking?

Due to the reduced fluid intake you would generally consume from the food you eat, you require just as much fluid, if not more than the average adult. Additionally, a low carbohydrate diet prevents the body from holding fluids, therefore you will need more to keep the body hydrated. Generally, the goal is 64 ounces of fluid per day.

18. I am worried about meeting my fluid needs when I go to work.

If you are not able to have a water bottle near you at work or have access to fluids regularly, talk with your supervisor immediately. Let your supervisor know that you need to drink throughout the day to prevent dehydration. If they are unwilling to work something out with you, ask your doctor if he will write a note to your boss explaining that your situation is a medical necessity.

19. I always drink with my meals, how can I break this habit?

When you begin to eat food, meals will be very soft and moist so that you shouldn't have issues with needing a drink to help swallow your food. Although habits are hard to break, you will be making a lot of changes with food behaviors following surgery; closely following the guidelines will lead to the development of new habits.

20. My joints limit my ability to exercise; what can I do?

Regardless of what physical activity you choose, you need to start slowly and gradually increase the intensity and the time spent doing the activity. If you have joint pain with weight-bearing exercise, you can start by doing exercises in a chair moving your arms and legs rhythmically or with resistance bands or weights. Pedaling a recumbent bicycle or engaging in water activities will also reduce stress on your joints.

21. How do I eat at restaurants?

Eating out is not recommended the first few weeks following surgery. After that time you will need to order low-fat, low-calorie, high protein menu items. This may involve asking for modifications (for example: grilled meat instead of fried food and sauce or dressings on the side).

You will need to be cautious in restaurants, focusing on taking small bites and eating very slowly, as there will likely be more distractions than when at home. When your meal comes, divide out the appropriate portion sizes right away to prevent unconscious overeating. You can also ask for a take-home box right away and place your leftovers in the box even before you start your meal.

22. Am I going to lose my hair?

Hair loss is a common concern for bariatric patients, especially for those with extreme weight loss. Fortunately, with adequate protein and multivitamin supplementation, hair will re-grow. While the body is focused on weight loss, attention is on preserving vital organs and energy on hair takes a step back. Generally, 3 to 6 months after surgery, patients will notice rapid hair loss.

The hair that falls out is in the 'telogen phase' meaning resting phase; the hair that is actively growing in the 'anagen phase' remains intact. There is no way to switch hair from the telogen to the anagen phase; regardless of supplementation, all hair in the telogen phase will be lost. Hair loss may reduce self-esteem for some, however it's best to remember that this is only a phase and within 6 months (after the initial significant weight loss period has slowed) the hair follicles will begin to re-grow hair. While the new hair grows, it may stick up however there are many hair care products that can help tame the new sprouts.

Be suspicious of a nutritional deficiency if your hair:

- Continues to fall out 1 year after surgery
- Hair loss started more than 6 months post-surgery
- You have difficulty consuming adequate protein or are neglecting to take your multivitamins supplements.

These may be indicators you have a protein, zinc, iron, vitamin A, folate, vitamin B6 or an essential fatty acid deficiency.

23. I'm a woman and would like to start a family someday, why do I have to wait before trying?

It is recommended that you wait at least 18-24 months post-surgery before you start trying to have a family. Fertility increases as weight loss occurs and therefore it is recommended that you start a birth control regimen or use protection. These recommendations are to ensure you can achieve your weight loss goals, that the baby is not affected by your rapid weight loss, and to reduce the chances of you or your baby from developing a nutrient deficiency. *Please note oral contraceptives are not as effective post bariatric surgery.*

Some bariatric multi-vitamin companies have prenatal bariatric multivitamins formulated with appropriate amounts and forms of vitamin A, folate, iron, iodine, and choline. Brands to consider: Celebrate® Nutritional Supplements and ProCare Health®; please note both brands require an additional calcium supplement.

Hypoglycemia after Gastric Bypass

What is Hypoglycemia? Hypoglycemia is low blood sugar

What does it feel like?

- Hungry
- Tired & Fatigued
- Shakiness
- Nervousness & Anxiety
- Sweating
- Dizziness
- Confusion & Difficulty Speaking
- Weakness & Fainting

Can this happen even if you've never been diabetic? Yes. There are several reasons that you might experience hypoglycemia, even if you were never diabetic. This may occur quickly after surgery or be something that begins up to a year after surgery.

- **Reactive hypoglycemia**- occurs specifically after bypass surgery and is the most common cause of hypoglycemia. Food moves rapidly into the small intestine which changes the body's response: the intestines aren't used to coping with carbohydrates that are as undigested as they will be at this point since part of the stomach and small intestine has been bypassed. The body is especially sensitive and "reactive" to high sugar foods. Think of it as a form of dumping. It typically occurs if you are including too many carbohydrates, not enough protein, or drinking fluids with your meals.
- **Calorie restriction**- your body is programmed to release a specific amount of insulin based on the food you used to eat. Now that you are eating much less, your body needs time to adjust.
- **Reduced body weight**- as your body loses fat, insulin resistance decreases. This causes the insulin you are producing to be more effective at decreasing your blood sugar. This is a good thing, but as your body adjusts, you may experience low blood sugar.

How to fix it:

- Do not go more than 4-5 hours without eating.
- Make at least ½ of your meal protein, eating it first.
- Avoid high carbohydrate snack foods (chips, pretzels, cereal, ice cream, 100 calorie packs, and crackers). The carbohydrates that you do include should be high fiber choices such as non-starchy vegetables, fruits, and whole grains. Remember that even healthy carbohydrate choices may cause hypoglycemia. At times, you may have to rely on carbohydrates from the fruit and vegetable groups instead of the grain group to maintain appropriate blood sugar.

- Have a snack before you exercise. Exercise causes your body to use available fuel in the blood (which makes your blood sugar drop).
- Avoid foods with added sugar. Refrain from consuming anything with more than 2 grams per serving of added sugar, however natural sugar from fruit and dairy is okay.
- Track your symptoms in your food journal, this is the best way to communicate your situation with your dietitian.

Protein Content of Foods

| Food Item | Serving Size | Protein | Calories |
|---|--------------|---------|----------|
| Milk & Yogurt | | | |
| Milk, fat-free, 1% fat or Soy (sugar free) | 1 cup | 8 | 90 |
| Evaporated fat-free milk | ½ cup | 8 | 90 |
| Greek yogurt, plain | 5-6 oz | 11-14 | 80-140 |
| Meats and Meat Substitutes | | | |
| Very Lean Meats | | | |
| Turkey breast or chicken breast, skin removed | 1 ounce | 7 | 35 |
| Fish fillet (flounder, sole, cod etc.) / Tuna in water | 1 ounce | 7 | 35 |
| Shellfish (clams, lobster, scallop, shrimp) | 1 ounce | 7 | 35 |
| Cottage cheese, nonfat or low fat | ¼ cup | 7 | 35 |
| Eggs and egg substitutes | | | |
| Egg Whites | 2 each | 7 | 35 |
| Egg Beaters® | ¼ cup | 7 | 35 |
| Fat-free cheese | 1 ounce | 7 | 35 |
| Vegetarian Options | | | |
| Beyond Meat® | 1 ounce | 5 | 58 |
| Tofu | ¼ cup (3oz) | 3.5 | 63 |
| Lean Meats | | | |
| Chicken or Turkey-dark meat, skin removed | 1 ounce | 7 | 55 |
| Salmon, Swordfish, Herring | 1 ounce | 7 | 55 |
| Lean beef (flank steak, London broil, tenderloin, roast beef) | 1 ounce | 7 | 55 |
| Veal, roast or lean chop | 1 ounce | 7 | 55 |
| Low fat cheese (3 grams fat per ounce) | 1 ounce | 7 | 55 |
| Low fat luncheon meats (3 grams fat per ounce) | 1 ounce | 7 | 55 |
| Fats | | | |
| Almonds | 6 nuts | 3 | 45 |
| Peanuts, dry roasted | 10 nuts | 3 | 45 |
| Peanut butter, smooth or crunchy | 1 Tbsp. | 3 | 100 |
| Starches | | | |
| Bread (white, pumpernickel, whole wheat, rye) | 1 slice | 3 | 80 |
| Reduced calorie or "lite" Bread | 1 slice | 1.5 | 40 |
| English muffin | ½ | 3 | 80 |
| Rice, brown cooked | 1/3 cup | 2 | 72 |
| Quinoa | 1/3 cup | 3 | 74 |
| Green peas / split peas | 1/3 cup | 3 | 40 |
| Lentils / Beans (cooked black, kidney, chickpeas) | 1/3 cup | 6 | 76 |
| Lentil and black bean pasta | 1 ounce | 7 | 90 |
| White Pasta (made with semolina flour) | 1 ounce | 3.5 | 100 |

Daily Food Journal

Date: _____

| Time | Food Item | Amount | Fiber Goal: 25 grams | Protein Goal: 65 grams | Calories 1000-1200 | Physical Feeling | Mood/ Location |
|--------------------|-----------|--------|-------------------------|---------------------------|-----------------------|---------------------|-------------------|
| Breakfast | | | | | | | |
| Morning Snack | | | | | | | |
| Lunch | | | | | | | |
| Afternoon Snack | | | | | | | |
| Dinner | | | | | | | |
| Evening Snack | | | | | | | |

Totals:

| | | |
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| | | |
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Water & Fluids: Goal at least 64 ounces of water per day (8 glasses)



Cardiovascular Exercise Log

| Date | Weight | BP | Heart Rate | | | Treadmill / Walking | | | Biking | | Elliptical / Cross-trainer | | | Arms | | Rower | | Miscellaneous & Comments |
|------|--------|----|------------|-----|------|---------------------|-------|------|--------|------|----------------------------|------------|------|-------|------|-------|------|--------------------------|
| | | | Pre | Mid | Post | Grade | Speed | Time | Level | Time | Load | Steps /min | Time | Level | Time | Watts | Time | |
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Strength Training Exercise Log

| Type of Exercise | Goal | Date: | | Date: | | Date: | | Date: | | Date: | | Date: | | Date: | |
|------------------|------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|
| | | Reps | Weight | Reps | Weight | Reps | Weight | Reps | Weight | Reps | Weight | Reps | Weight | Reps | Weight |
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| Type of Exercise | Goal | Date: | | Date: | | Date: | | Date: | | Date: | | Date: | | Date: | |
| | | Reps | Weight | Reps | Weight | Reps | Weight | Reps | Weight | Reps | Weight | Reps | Weight | Reps | Weight |
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Screening for Sleep Apnea

Height: _____ Weight: _____ Age: _____ Male / Female: _____

Questions

Please circle
Yes or No

| | | | |
|---|---|-----|----|
| 1. | A. Do you have sleep apnea? | Yes | No |
| | B. If yes: Do you have a working CPAP or BIPAP? | Yes | No |
| If you answered yes to both A & B, you are done with this survey, otherwise continue below. | | | |
| 2. | Do you snore? | Yes | No |
| 3. | Do you often feel tired, fatigued, or sleepy during the daytime? | Yes | No |
| 4. | Has anyone observed you stop breathing or gasp for air during your sleep? | Yes | No |
| 5. | Do you have or are you being treated for high blood pressure? | Yes | No |
| 6. | Is your BMI greater than 35? | Yes | No |
| 7. | Are you over the age of 50? | Yes | No |
| 8. | Is your neck circumference greater than 16 inches? | Yes | No |
| 9. | Are you male by birth? | Yes | No |

Please count how many questions you answered Yes.

Use the key below to determine your risk of Obstructive Sleep Apnea.

| Number of Yes and risk for Sleep Apnea | Next Step |
|--|--|
| 5-9 = High Risk | Schedule an appointment with the pulmonologist (847) 360-9800 |
| 3-4 = Intermediate Risk | Speak with your doctor and decide if you should schedule an appointment with the pulmonologist |
| 0-2 = Low Risk | No appointment necessary |

It is recommended that you schedule the pulmonary appointment as soon as possible to establish care and prevent any delays prior to surgery.