



**CENTERPOINT
MEDICAL CENTER**

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NUTRITION GUIDELINES FOR WEIGHTLOSS SURGERY



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Starting now, you should begin to make dietary changes in order to get ready for a healthy lifestyle after surgery. The sooner you make these changes before surgery, the easier it will be to choose healthy after surgery.

1. **For every meal, you should include a source of lean protein.** The following is a list of lean protein sources. Lean meats should be grilled, baked, broiled, or roasted.

- Chicken, turkey (not fried)
- Fish, shellfish (not fried)
- Beef — round, sirloin, flank, tenderloin, roast, ground (93% or leaner)
- Pork — loin chop, tenderloin, ham, Canadian bacon
- Lean deli meats such as baked ham, turkey breast, or roast beef
- Game meats such as venison, pheasant
- Buffalo meat (bison)
- Eggs, egg whites, egg substitutes
- Skim or 1%, milk, soy milk, lactose-free milk, unsweetened almond milk
- Low-fat cottage cheese made from skim or 1% milk
- Protein shakes or bars
- Low-fat or fat-free cheese Low- or no-sugar, low- or no-fat yogurt (e.g., Dannon Light & Fit® or store brand), and/or Greek yogurt
- Tofu, soy products
- Nut butters (look for “natural”), nuts
- Beans (black, kidney, garbanzo, navy, etc.), lentils, legumes (also count as starch)

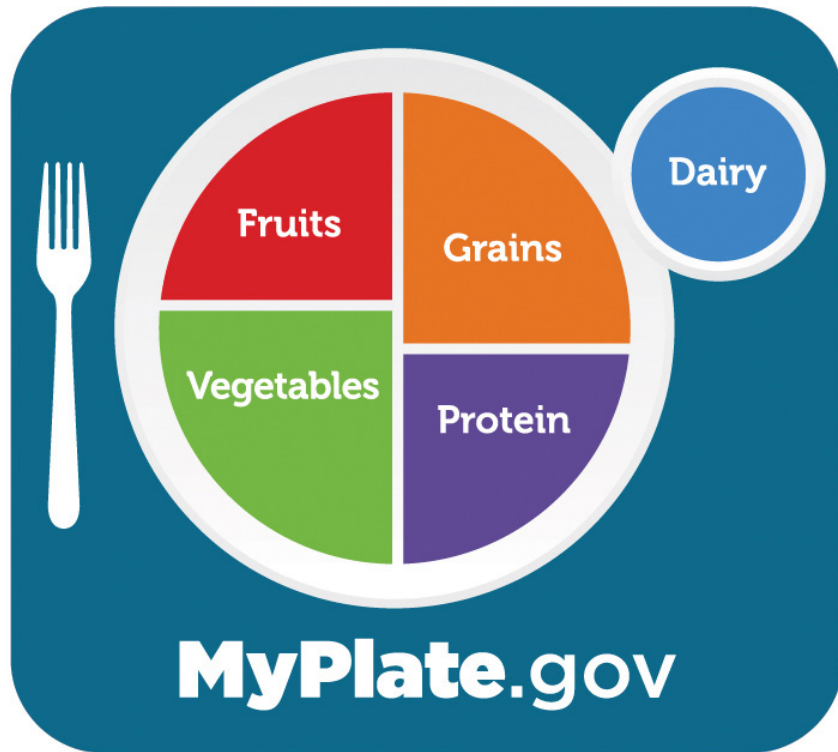
2. **For every meal, add a vegetable and/or fruit.** This is the main fiber portion of your meal. Vegetables and fruits can be fresh, frozen, or canned; the point is to eat them. Look for reduced-salt or no-salt varieties, if canned vegetables. Fruit should be “in its own juice,” with no syrup or added sugar. Keep fruit choices to 1/2 cup or 1 piece. Potatoes and bananas are the starchiest of the bunch; limit these.

Vegetables:

Salad greens/ lettuces, kale, spinach, mushrooms, radishes, cucumbers, onions, peppers, zucchini, squash, broccoli, cauliflower, eggplant, asparagus, brussel sprouts, carrots, tomatoes, green beans, wax beans, celery, cabbage, okra, artichokes

Fruits:

Apple, applesauce (unsweetened), apricots, blackberries, blueberries, cantaloupe, cherries, dates, figs, fruit cocktail, grapefruit, grapes, honeydew melon, kiwi, mandarin oranges, mango, nectarine, orange, papaya, peach, pear, pineapple, plums, prunes, raisins, raspberries, strawberries, tangerine
watermelon



SMART goals are Specific, Measurable, Attainable, Reasonable, and Time-focused.

An example is “I will walk for 20 minutes a day for 5 days for the next week.” or “I will drink 20 ounces of water by noon each day for the next week.”

My SMART goals are:

- 1.
- 2.
- 3.

Obstacles in reaching these goals:

Internal

External

Ways to change these difficulties and remove obstacles:

How ready am I to make the necessary changes to reach these goals?

1 2 3 4 5 6 7 8 9 10
Not ready at all! I'll start right now!

My confidence in achieving these goals:

1 2 3 4 5 6 7 8 9 10
Not confident Very confident

MACRONUTRIENTS



		without physician or dietitian approval.
Rupture of the staple line	Rupture of the staple line is unlikely.	Follow the post op diet progression and avoid eating an excessive quantity of food at one time.
Stretching of the stomach pouch, sleeve, or stoma dilation	This can be caused by eating large portions of food at one time and advancing your diet without permission from your physician or dietitian.	Avoid large portions of food and modify the texture of foods only gradually in the early postoperative weeks. Follow recommendations for advancing your diet to prevent stretching.
Weight gain or no further weight loss	Eating high calorie foods or beverages, or lack of regular physical activity.	Keep a record of all foods, beverages, and snacks consumed. Measure portion sizes. Use only low calorie beverages in addition to skim milk. Be sure to include physical activity every day (goal of at least 30 minutes/day).
Gas		Limit intake of gassy vegetables, high fat and greasy foods.
Low blood sugars (hypoglycemia)	Low blood sugars can occur if you have not eaten for several hours. Reactive hypoglycemia can also cause low blood sugars. This typically occurs 1 hour or so after a meal if starches (bread, potatoes, pasta) were consumed. The starch is digested, turned into sugar and causes an initial high blood sugar. The pancreas then releases too much insulin, resulting in the episode of low blood sugar.	Keep a food log of your meals, meal times, and time of symptoms. Do not skip meals. Aim for a serving of carbohydrates with every meal in addition to protein and non-starchy vegetables.

KEYS FOR LONG-TERM SUCCESS AFTER WEIGHT LOSS SURGERY

Eat small, healthy meals -slowly! Following the Stage 4 diet is important in the long run. It is important to eat properly to achieve the best weight loss and nutrition. You need to take the recommended vitamin and mineral supplements daily for the rest of your life to avoid complications.

Make exercise a regular part of your daily life. Exercise is key for maintaining weight loss once you've reached your goal weight. Incorporate a variety of exercises into your routine like cardio, resistance training, and stretching. Your goal is to get at least 30 minutes of exercise 5-7 days per week.

You may gain weight after the first year anniversary of your weight loss surgery. Patients who succeed in keeping off their weight tend to pay attention to their food choices and portion sizes as well as increase their physical activity. Long-term follow-up with the bariatric team is important to maintain weight loss and to help prevent complications. Keeping a food diary, or using an app such as MyFitnessPal, is a simple method for patients to keep track of their diet and be accountable.

Some patients will avoid long-term follow-up appointments because they are embarrassed or frustrated that they have gained weight. You need to follow up! The bariatric surgery staff is here to help.

Carbohydrates:

Carbohydrates are an important part of our diet and are essential for producing energy. However, they can be — and usually are — the highest in added fats, sodium, sugars, and calories. Therefore, the point is to choose them carefully and limit both how often you eat them and the portion size when you do.

What you should look for are carbohydrates that are whole grains and minimally processed versus highly processed. For example, a highly processed choice would be “enriched wheat” in a slice of white bread, pasta or pretzels, “bleached” as in rice, or any food that has sugar or high fructose corn syrup as one of the first few ingredients. These are also referred to as “empty” carbs because they contain little or no nutritional value. Avoid these.

A whole grain, minimally processed item would actually have the word “whole” in front, such as whole grain oats or whole wheat. These you can include in your meal plan in small amounts. Carbohydrates should be eaten last and not consumed if you feel full. Here are some examples of acceptable choices:

- Whole grain brown rice — 1/2 cup serving
- Whole grain pasta — 1/2 cup serving
- Sweet potato — 1/2 cup serving
- Starchy vegetables such as corn, peas, beans (black, kidney, garbanzo, navy, etc.), legumes, lentils — 1/2 cup serving
- Whole grain cereal, such as Shredded Wheat®, Cheerios®, Wheaties®, All Bran® — serving size as listed on box
- Oatmeal, whole grain Cream of Wheat® — 1/2 cup or 1 packet
- Whole grain bread, English muffins, wraps, pitas, crackers
- 1 serving is equal to 15 grams of carbohydrates. Read your labels.

Fats :

- Decrease the amounts of full-fat items such as sour cream, mayonnaise, ranch dressing, and cream cheese to reduce calories.
- Here are some better choices: Olive oil, canola oil
- Low-fat or fat-free salad dressings, if creamy
- Salad dressings, marinades with an olive oil base
- Lower-fat margarine or spreads such as Promise Light® or I Can't Believe It's Not Butter®



Everyone needs protein, but it is most important to have protein in your diet in the early stages after your surgery. Your body needs protein to:

- Heal your incision and your new stomach pouch.
- Retain your muscle mass while you are losing weight.
- Prevent poor healing, hair loss, and a feeling of low energy.

Here is a list of lean, high protein foods to include in your meal planning:

Foods highest in protein

- Non-fat dairy products
- Moist, cooked lean meats
- Skinless poultry
- Cooked fish and seafood
- Eggs, egg substitutes

Other protein foods

- Cooked legumes (lentils, pinto beans, kidney beans)
- Soy foods (tofu, soy milk, veggie burgers)
- PB2

After several months, your new pouch or sleeve will be healed and you will be able to tolerate more types of food. It will always be important for you to make sure you are getting the protein your body needs. Choose lean or low-fat sources to prevent unwanted weight gain. When preparing your foods, avoid frying or adding extra fat to avoid the excess calories and possible stomach discomfort. "Nutrition Facts" on food labels provide information on the grams of protein in most foods.

How do you know if you are getting enough protein?

Since you will be eating only small amounts of food at a time after surgery, you need to choose high-protein foods first at each meal, before you eat other foods. Total your grams of protein from foods and beverages to ensure you are meeting your daily protein goal. Use the nutrition facts label and the list of food sources in this handout as a reference. As a general rule of thumb, each ounce of meat, fish, poultry, or egg contains 7 grams of protein.

Common Measurements

3 tsp = 1 tbsp 1 oz = 2 tbsp 2 oz = cup
 4 oz = cup 8 oz = 1 cup

Potential Problems	Causes	Suggestions
Nausea and Vomiting	Nausea and vomiting may occur commonly within the first 2-3 months after surgery and is usually due to: <ul style="list-style-type: none"> • Taking bites that are too large • Not chewing adequately • Consuming too large of a volume at one time • Eating foods that are too dry or tough 	If nausea and vomiting occur after eating a new food, wait several days before trying it again. It may be necessary to return to liquid or pureed foods temporarily. Avoid cold beverages and those with caffeine or carbonation.
Dumping Syndrome	This occurs most commonly with the gastric bypass and duodenal switch, but may also occur with sleeve gastrectomy. <ul style="list-style-type: none"> • Occurs in response to the presence of digested food and simple carbohydrates. • Symptoms include abdominal fullness, nausea, weakness, rapid pulse, cold sweat, or diarrhea 	Avoid all high-sweetened foods and beverages, and high fat or greasy foods. Avoid drinking while eating and within the first 30 minutes after eating. If dumping occurs, lying down for 20 to 30 minutes may help slow the transit to the small bowel
Pain in shoulder or upper chest area	May occur when you eat too much or eat something hard to digest.	Stop eating if pain occurs during eating and try to eat later after pain has resolved. Contact your doctor if symptoms persist or worsen as they may be related to other conditions.
Dehydration	Dehydration can occur with inadequate fluid intake, persistent nausea, vomiting, or diarrhea.	It is important to drink at least 64 ounces of fluid a day, especially during the first few months of rapid weight loss.
Lactose Intolerance	Some patients experience a new intolerance to milk and milk products after surgery.	Use lactase-treated milk and lactase enzyme tablets. Try Lactaid 100% or Dairy Ease 100%.
Constipation	Occurs commonly, especially if not drinking enough fluids or if taking an iron supplement.	Drink plenty of water daily. Eating fruits and vegetables reduces the risk of recurrent constipation. Daily use of Miralax may be required.
Diarrhea	May be related to certain foods, especially greasy or fried foods.	If you develop an illness causing diarrhea, drink fluids to keep hydrated.
Heartburn or reflux	Can be related to certain foods (citrus, spices). May develop if you have a hiatal hernia. Ulcers can cause heartburn.	An antacid may be required. Keep track of your symptoms and report them to your surgeon if no improvement.
Bloating		Limit liquids to 2 ounces at one time and sip slowly.
Blockage of the stoma or new stomach	The stoma or new stomach may be temporarily blocked if foods with large particle size are eaten too quickly or without thorough chewing.	You can try a few sips of a carbonated beverage such as ginger ale to help clear the blockage. If symptoms of pain, nausea, and vomiting persist, a physician should be contacted. Do not progress to solid foods

FOODS THAT MAY BE DIFFICULT TO TOLERATE AFTER SURGERY

Meat and Meat Substitutes	<ul style="list-style-type: none"> • Chicken –needs to be moist • Steak –filet mignon tolerated better • Hamburger –turkey burger may be easier to tolerate at first • Tough, gristly meats like pork • Fried or fatty meat, poultry, or fish
Starches	<ul style="list-style-type: none"> • Bran, bran cereals • Granola • Whole grain or white bread (non-toasted) • Whole grain cereal • Rice • Pasta
Vegetables	<ul style="list-style-type: none"> • Fibrous vegetables (dried beans, celery, corn, cabbage, romaine hearts, artichokes) • Raw vegetables
Fruits	<ul style="list-style-type: none"> • Dried fruits • Coconut • Orange and grapefruit membranes • Skins and seeds (peel all fruit and de-seed)
Miscellaneous	<ul style="list-style-type: none"> • Carbonated beverages • Highly seasoned and spicy foods • Alcohol
Sweets	<ul style="list-style-type: none"> • Candy • Desserts • Jam • Jelly • Ice cream • Sweetened fruit or juice • Sweetened beverages, soda

Protein Sources			
Food/Beverage	Serving Size	Protein (in grams)	Calories
Meat, Fish, Poultry			
Baby food meat (plain)	1 jar (2.5 oz)	9-11	60-80
Lean ground sirloin	2 oz	14	150
Roast	2 oz	12	130
Pork Chop	2 oz	17	109
Tilapia	2 oz	15	72
Shrimp, boiled	6 large	7	33
Tuna, in water	1/4 cup	14	45
Salmon, baked	2 oz	12	115
Perch, flounder, sole, haddock (baked)	2 oz	14	65
Lobster	2 oz	15	80
Baked ham	2 oz	13	100
Chicken, dark (no skin)	2 oz	15	115
Chicken, white (no skin)	2 oz	19	90
Ground turkey (97% lean)	2 oz	11	60
Turkey, light meat (no skin)	2 oz	17	80
Turkey, dark meat (no skin)	2 oz	16	92

STAGE 4: SOLID FOODS

Protein Sources			
Food/Beverage	Serving Size	Protein (in grams)	Calories
Milk, Cheese, Yogurt			
Low-fat cottage cheese	1/4 cup	7	40
Skim mozzarella	1 oz	6	80
Fat-free American cheese	1 slice	7	35
Fat-free cheddar cheese	1/4 cup	9	35
Skim milk	1 cup (8 ounces)	8	90
Non-fat dry milk	1/4 cup	11	110
Yogurt, light	3/4 - 1 cup	5-9	80-100
Greek yogurt, non-fat	3/4 - 1 cup	18-22	100-120
Egg, large size	1 egg	7	65
Egg substitute	1/4 cup	7	50
Tofu	1/4 cup	5	95
Vanilla soy milk, non-fat	1 cup	6	70
Starches			
Fat-free refried beans	1/4 cup	4.5	68
Beans/lentils	1/4 cup	4	60
Edamame, shelled	1/4 cup	8	95
Soups			
Bean, pea, or lentil soup	1 cup	6-9	100-140
Chili	1/2 cup	15	150

Continue to eat nutrient-rich foods such as lean meats, poultry, pork, low-fat dairy products, vegetables, fruits, and whole grains. These foods contain the energy, protein, vitamins, and minerals that your body needs. Since you will only be able to tolerate limited amounts of food at a time, it is very important that you choose quality foods. Include only nutrient-dense foods, rather than empty-calorie foods that are high in sugar or fat content but do not contain any nutritional value.

Although you will be trying to eat vitamin- and mineral-rich foods, it is important to continue to take a vitamin and mineral supplement since you will not be able to eat large enough amounts to meet your needs, and some nutrients are not absorbed as well. Remember, vitamin and mineral supplementation is life-long.

The goal of this stage: Eat 3 well-balanced, nutritious meals each day, avoid excessive snacking or grazing between meals, and maintain small portion sizes.

This includes adequate amounts of protein and fluid as well as your vitamin and mineral supplement regimen. You may not be able to tolerate the amount of food listed below. Remember, stop eating as soon as you start to feel full, do not drink with meals, and limit your meal times to 20-30 minutes to eat each meal.

Long-term after bariatric surgery, you are able to eat any type of food. You just have to be mindful of portion size and choices

Sample daily menu			
Breakfast:	7:30 – 8:00 am	2 slices of turkey sausage 1/2 cup Greek yogurt	MVI Vitamin B12
	8:30 – 11:30 am	24 ounces of water or sugar-free beverage	Calcium
Lunch:	12:00 – 12:30 pm	3 oz grilled chicken breast 1/4 – 1/2 cup salad greens 2 tbsp regular Italian dressing	MVI Vitamin D
	1:00 – 4:30 pm	24 ounces of water or sugar-free beverage	Calcium
Dinner:	5:00 – 5:30 pm	3 ounces of shredded pot roast with low fat gravy 1/4 cup cooked carrots	Iron (if needed)
	6:00 – 9:30 pm	24 ounces of water or sugar-free beverage 8-12 ounces protein drink (if needed)	Calcium

*During this phase, you should be able to meet protein needs with the suggested food servings above. However, it is recommended that you keep track of your daily protein intake and supplement with protein powder or protein drinks, as needed, when you fall below your daily needs.

*Remember to avoid drinking with your meals. Use only low-fat cooking methods and do not overeat. Chew thoroughly and avoid eating too quickly.

Suggested Foods List

Try the foods at the top of the list first as they may be easier to tolerate. Remember to introduce just one new food at a time. Keep in mind that everyone's tolerance is different and you may have more difficulties with some foods than others. Moist foods are usually tolerated better, and make sure to go slowly. Remind yourself how small your new stomach is.

Protein Sources	
Cottage Cheese (low-fat, small curd)	Ricotta cheese (low-fat)
Yogurts with less than 15 grams sugar/serving, blended	Greek yogurt with less than 15 grams of sugar/serving, blended
Sugar-free pudding/custard	Eggs, egg whites, or egg beaters (poached, soft-boiled, or scrambled)
Chicken, turkey (canned or prepared in slow cooker/Crockpot)	Baked fish that flakes easily with a fork (cod, salmon, tilapia, crab meat)
Canned tuna, salmon, or chicken (in water only)	Thinly sliced turkey breast

Vegetables –cooked, soft, and mashed well	
Green beans	Carrots
Spinach	Turnip greens
Mushrooms	Tomatoes, canned
Beets	

Fruits	
Diced pears, apricots, or peaches	Unsweetened applesauce
Banana -mashed	Fruits canned in 100% fruit juice (do not choose fruit canned in syrup)

Sample daily menu			
Breakfast:	7:30 – 8:00 am	1/4 – 1/2 cup low-fat, small curd cottage cheese 2 tbsp unsweetened applesauce	MVI Vitamin B12
	8:30 – 11:30 am	24 ounces of water or sugar-free beverage	Calcium
Lunch:	12:00 – 12:30 pm	1/4 – 1/2 cup tuna blended with plain non-fat plain Greek yogurt and smashed avocado	MVI Vitamin D
	1:00 – 4:30 pm	24 ounces of water or sugar-free beverage	Calcium
Dinner:	5:00 – 5:30 pm	2-3 ounces baked tilapia and 1/4 cup well-cooked green beans	Iron (if needed)
	6:00 – 9:30 pm	24 ounces of water or sugar-free beverage	Calcium (if needed)



Nutrition Facts	
5 servings per container	
Serving size	1/2 cup (125g)
Amount Per Serving	90
	% Daily Value*
Total Fat 4g	5%
Saturated Fat 1g	5%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 480mg	21%
Total Carbohydrate 12g	4%
Dietary Fiber 2g	7%
Total Sugars 7g	
Includes 1g Added Sugars	2%
Protein 2g	
Vitamin D 0mcg	0%
Calcium 23mg	2%
Iron 0.7mg	4%
Potassium 428mg	10%
*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.	

1. Look at serving size. Determine the amount of servings you are eating. All information on the label is based on the listed serving size.
2. Check out the calories. Tells us the calorie amount per serving. Check how this fits into your daily calorie goals.
3. Assess our macronutrients. Macronutrients are the nutrients that contain calories –Protein, Carbohydrates, and Fat. Look to see how the content of these nutrients fit into your daily goals.
4. Nutrients to limit: try to choose foods lower in saturated and trans fats and sodium. Saturated and trans fats are high in calories and raise LDL cholesterol. High intakes of sodium can increase blood pressure and cause fluid retention.

Some Additional Tips:**1. Start moving away from instant, pre-packaged processed foods, fast food, and take out. Home cooked, real food is always the best choice.**

Even though these are processed pre-packaged meals, selections such as Lean Cuisine, Healthy Choice, and Weight Watchers can lead you away from impulse decisions when things don't go as planned and there's just no time. This could at least be a better choice than running through the drive-thru. Think of it as a "backup" plan. Just remember to look for an entrée that has lean protein and vegetables (fiber) and not just any low-calorie pizza or pasta. Remember these are the empty carbohydrates you are avoiding.

Soup is another quick choice. Avoid creamy and cheesy varieties and again look for protein and vegetables such as lentil, chili, or vegetable beef.

2. Start paying attention to how you eat. Begin with small bites and take one bite at a time. Taste your food; you want to enjoy your food longer while at the same time eat less. Put your utensil down after every bite and chew your food thoroughly. Aim for 20-30 minutes to eat your meal. The slower you eat, the more time you have to realize you have had enough. Break the habit of eating everything on your plate.

Eat the protein and vegetable portion of your meal first and if you start to feel full, leave behind the carbohydrate.

3. Eat 3 meals per day. Break the habit of skipping meals. This often leads to overeating when you do eat and grabbing unnecessary snacks and "grazing."**4. Drink plenty of fluids.** Anything that is sugar-free, non-carbonated and decaffeinated can help you meet your fluid needs. Keep in mind that plain water is best. Aim for at least 64 ounces per day. Here are some acceptable choices: Crystal Light, Sugar-free Kool-Aid, etc. (store brands are fine), MiO flavor enhancers, Aquafina Splash, Brewed decaf tea (may use artificial sweetener), Diet green tea, Sugar-free sports drinks.**5. Increase your physical activity.** Exercise is key for continued weight loss and maintaining weight loss after surgery. Starting increasing your exercise now. You can start with just a couple of minutes per day and slowly increase the duration of your exercise as you progress. Your goal is to get at least 30 minutes of exercise 5-7 days per week.**6. Work on eliminating any other bad habits at this time.** Smoking? Alcohol? Soda or other sugar-sweetened beverages? Now is the time to phase these out.

- Begins after full liquid diet (stage 2) and lasts for the next 4-6 weeks.
- Foods should be very soft, start with mashing everything well with your fork. Take small bites (size of a pencil eraser) of tougher foods (chicken, meats, fish).
- Begin eating only 3 small meals a day. Do not snack or "graze" throughout the day.
- Eat the protein portion of your meals first. If you are unsure which foods are high in protein, talk to your dietitian or refer to pages 8-9 in this book.
- Get in the habit of eating at least 2-3 ounces of protein rich foods at each meal.
- Eat slowly. Put your fork down between each bite and chew your food very thoroughly (to a mushy consistency).
- Stop eating as soon as you feel full, which initially may be after only 2 or 3 bites of food. Indications of fullness include feeling pain or pressure in the center just below your rib cage, nausea, or pain in your shoulders or upper chest. Do not eat to the point of discomfort.
- Your meals will be 3-4 ounces (1/2 cup) in total size. Use small plates and cups instead of large plates and bowls for your meals.
- Remember, do not drink liquids at meal time and for 30 minutes after meals. Drinking while eating or immediately after eating may cause dumping syndrome.
- If you are having difficulty with soft foods, return to just liquids for 1-2 days, then try again.
- If you experience an episode of vomiting, rest your pouch by returning to a liquid diet for 1-2 days.





- Days 2-14 after surgery
- Sip liquids slowly, no gulping
- Caffeine should be limited to 8 ounces/day and does not count towards fluid needs
 - Acceptable liquids on Stage 2:
 - Anything from Stage 1 –remember, these are the fluid that count towards hydration (you need a minimum of 64 ounces/day!)
 - Protein shakes
 - Milk (skim or unsweetened)
 - Yogurt (Greek preferred), smooth/blended
 - Condensed, strained cream soups such as tomato soup, cream of chicken, cream of mushroom, etc.
 - Sugar-free pudding
 - Applesauce

Remember, everything should be completely liquid at this time!

Goals for Stage 2

- Meet your fluid goal of 64 ounces (8 cups) per day. Drink enough fluid to keep your urine a clear, pale yellow color. If your urine becomes cloudy, dark, or foul-smelling, you need to drink more!
- Focus on increasing your protein every day until able to consistently meet your protein goals.
- Limit high-sugar beverages. All beverages should have less than 15 grams of sugar per 8 ounce serving to prevent dumping syndrome (see page 18 for more details about dumping syndrome).
- Avoid drinking carbonated beverages during this phase. They produce a lot of excess gas which may be uncomfortable.
- Get in the habit of always carrying a beverage with you. Pre-freeze or refrigerate plastic bottles of your choice beverage taking small, frequent sips throughout the day. You should never go a few hours without drinking anything. Constantly sip to avoid becoming dehydrated.

Low-Calorie Pre-Operative Diet: You will be on a special low-calorie liquid diet for 14 days before surgery. During these two weeks, you will not be eating any solid foods –your diet will consist of protein shakes and calorie-free fluids. One of the common side effects of obesity is fatty infiltration of the liver, which can make surgery difficult. The pre-op diet will help shrink that fat surrounding your liver, which makes surgery and recovery easier and minimizes the risk of surgical complications.

Beverages should be calorie-free, caffeine –free, and non-carbonated. Examples include:

- Water
- Broth
- Sugar-free drink mixes like Crystal Light, sugar-free Kool-Aid, sugar-free Hawaiian Punch, MiO, etc.
- Flavorings and seasonings (such as True Lime, True Lemon, True Orange)
- Flavored waters such as Propel, Fruit 2 O, SoBe Lifewater, PowerAde Zero, etc.
- Decaffeinated coffee or tea
- Sugar-free Jell-O
- Sugar-free popsicles (no fudgesicles)
- Calorie-free artificial sweetener of choice
- Equal (NutraSweet, Aspartame)
- Sweet N' Low (Saccharin)
- Splenda (Sucralose)



STAGE 1: CLEAR LIQUIDS

Protein supplements will be essential for adequate nutrition during this phase. Your goal is to get **70-100 grams of protein** every day during the liquid diet phase. When choosing a protein supplement, look for one that has **at least 20 grams of protein/serving and around 150-160 calories/serving** (or less). Examples of appropriate protein supplements are listed below:

Protein Supplements	Serving Size	Calories	Protein (grams)	Carbs (grams)	Fat (grams)
Protein Shakes					
Premier Protein	11 oz	160	30	5	3
Unjury Ready to Drink Protein	8.5 oz	110	20	2	1.5
Muscle Milk 100 calories	11 oz	100	20	7	1.5
Pure Protein Shake	11 oz	140	30	6	1.5
Protein Waters					
Premier Protein Clear	16.9 oz	60	20	1	0
Protein2o	16.9 oz	70	15	7	0
Isopure Plus zero carb	20 oz	160	40	0	0
Protein Powders					
Bariatric Advantage High Protein Meal Replacement Powder	2 scoops	150	27	11	2.5
Unjury Protein Powder	1 scoop	90-110	21	0-4	0-0.5
Isopure Infusion	1 scoop	90	20	2	0
Pure Protein Powder	1 scoop	160	25	9	2.5

*If choosing a protein powder, mix with water or unsweetened almond or soy milk. Do not mix with cow's milk as this is higher in carbs and not recommended during the pre-op phase.

- Day after surgery, in hospital
- Sip liquids slowly, no gulping
- Start with 15 ml every 15 minutes for the first hour, slowly increase volume as tolerated
- Caffeine should be limited to 8 ounces/day and does not count towards fluid needs
- Remember, goal is 64+ ounces/day
- Examples of appropriate fluids that may be used for hydration:

- Water
- Broth
- Sugar-free drink mixes like Crystal Light, sugar-free Kool-Aid, sugar-free Hawaiian Punch, MiO, etc.
- Flavorings and seasonings (such as True Lime, True Lemon, True Orange)
- Flavored waters such as Propel, Fruit 2 O, SoBe Lifewater, PowerAde Zero, etc.
- Decaffeinated coffee or tea
- Sugar-free popsicles (no fudgesicles)
- Calorie-free artificial sweetener of choice
- Protein water
- Protein powder mixed in water





You will not be able to meet certain vitamin and mineral needs after surgery without supplementation because of the small amounts of food that you will eat and because your body may have difficulty absorbing them. Vitamin and mineral supplements will be required daily and life-long supplementation is needed to avoid any vitamin and mineral deficiencies.

Initially, patients will be required to use chewable, liquid, or sublingual supplements for the first several months after surgery. You can switch to a solid pills when you are able to tolerate solid foods and have no difficulty with swallowing bigger pills. Be sure to get the surgeon's approval prior to starting any whole pills after surgery. **Remember, no gummy supplements!

Vitamin and Mineral Supplements			
Vitamin	Dose	Appropriate Brands	Helpful tips
Multivitamin	2-4 per day (dependent on brand)	<ul style="list-style-type: none"> Bariatric specific brands (such as Bariatric Advantage, Bariatric Fusion, or Celebrate) Flintstones Complete Chewable MVI or Centrum Complete Chewable 	Some vitamin tablets contain iron. When purchasing a multivitamin, be sure that it contains minerals (i.e., Selenium, Zinc, Copper) NO GUMMY MULTIVITAMINS!
Calcium	1000-1500 mg daily <i>*can only take 500-600 mg at one time</i>	<ul style="list-style-type: none"> Bariatric specific brands (such as Bariatric Advantage or Bariatric Fusion) Citrical Tums 	Do not take at the same time as Iron. (Must be separated two hours apart from iron.) Can be taken without food.
Vitamin B12	350-500 mcg/day Or 2500-3500 mcg once/week	Any sublingual Vitamin B12	Sublingual drops or lozenges MUST dissolve completely under the tongue.
Vitamin D	2000 IU daily	Any Vitamin D supplement	Doses may vary depending on blood work results. If you were or become vitamin D deficient, you may also be instructed to take a higher dose prescribed by your doctor
Iron	<ul style="list-style-type: none"> 18 mg/day for men and post-menopausal women 45-60 mg/day for pre-menopausal women 	Bariatric-specific brands (i.e., Bariatric Advantage, Bariatric Fusion)	You may not be required to take iron. Refer to instructions from your bariatric team. Do not take with calcium. If you are taking tablet Iron, you may be instructed to take vitamin C with this.

Vitamin and mineral supplements should be started once discharged from the hospital after surgery. You may be instructed to start taking vitamin and mineral supplements prior to surgery based on pre-op lab work results. Do not change vitamin and mineral supplements without surgeon or dietitian approval.

Gastric Sleeve: <1000 calories/day • 60-80 grams protein/day

Gastric Bypass: <1000 calories/day • 80-100 grams protein/day

Duodenal Switch: <1000 calories/day • 100-120 grams protein/day

Fluids: 64+ ounces/day

IT IS RECOMMENDED THAT YOU GET A MINIMUM OF 50 GRAMS OF CARBS/DAY FOR ADEQUATE BRAIN FUNCTION.

REMEMBER:

- Registered Dietitian to adjust calorie and macronutrient needs on individual basis, if needed.
- The most important aspects of the first months after surgery are proper hydration and protein. Aim for 64 ounces of water and other fluids daily by constantly sipping liquids. Do not gulp! Do not include high calorie or sugary beverages; do not include carbonated beverages.
- Your stomach is still recovering from surgery, so it is important that you do not try to advance your diet until your stomach is ready. It is not uncommon for you to experience nausea and/or vomiting if advancing your diet too quickly. This may simply be your stomach's reaction to the surgery and should not discourage you from hydrating yourself.

My Personal Vitamin Schedule (you fill this out with the Dietitian during your pre-op nutrition appointment):

Breakfast:

Mid-Morning:

Lunch:

Afternoon:

Dinner:

Before Bed:

Main Focus

- Drink enough fluid to keep your body hydrated.
- Eat adequate amounts of protein.
- Take required vitamin and mineral supplements.

Keys for Success

Drink 64 fluid ounces (8 cups) of liquid per day:

*Note: If your urine is dark and your mouth is dry, you are not drinking enough!

- Sip one cup of liquid over an hour.
- Don't drink with a meal, resume drinking 30 minutes after a meal.
- Sip approved beverages slowly.
- Avoid using a straw when drinking.
- High calorie foods, beverages, and snacks are omitted.

Once discharged from the hospital, start taking your supplemental multivitamins, vitamin B12, calcium, and vitamin D -these are REQUIRED daily. Patients, especially young women, may also be instructed to take additional supplements such as iron.

Foods need to be thoroughly chewed to prevent vomiting and obstruction in your new stomach. The diet will be advanced gradually, depending on your tolerance. This allows your body to heal. Keep in mind that everyone advances at a different speed.

It is important not to advance your diet too quickly.

