

**BRIGHAM HEALTH**



**BRIGHAM AND WOMEN'S**  
Center for Metabolic and Bariatric Surgery

## Nutrition Guidelines for Sleeve Gastrectomy and Gastric Bypass

Nutrition Concerns: 617-732-8884\*

Medical Concerns: 617-732-8882\*  
(\*expect to leave a voicemail)

**Message us through patient gateway!**  
[www.patientgateway.org](http://www.patientgateway.org)

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[www.brighamandwomens.org/WeightLossSurgery](http://www.brighamandwomens.org/WeightLossSurgery)

This book is designed to help you, your family, and your friends understand how eating will change after surgery. It is important to commit to healthy lifestyle habits for the rest of your life to be successful with surgery. It is still possible for people to overeat and gain weight after bariatric surgery. It is encouraged to start practicing healthy lifestyle changes before surgery so they will become habits you can sustain long-term!

We hope the guidelines in this book, and the support from our team, will help you to have a healthy life after surgery.

In this book, you will find:

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**Your Typical Dietitian Appointment Schedule**

Individual appointments are 30 minutes; groups and classes are 45-60 minutes.

Before Surgery:

- Nutrition Class
- Nutrition Assessment
- Nutrition Follow-Ups as needed

After Surgery

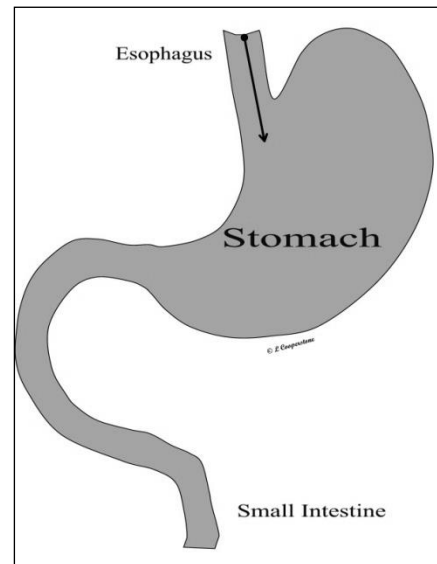
- 2-3 weeks (group session)
- 3 months
- 6 months
- 9 months
- 1 year
- After 1 year, meet with dietitian twice per year (every 6 months) forever

## The Surgeries

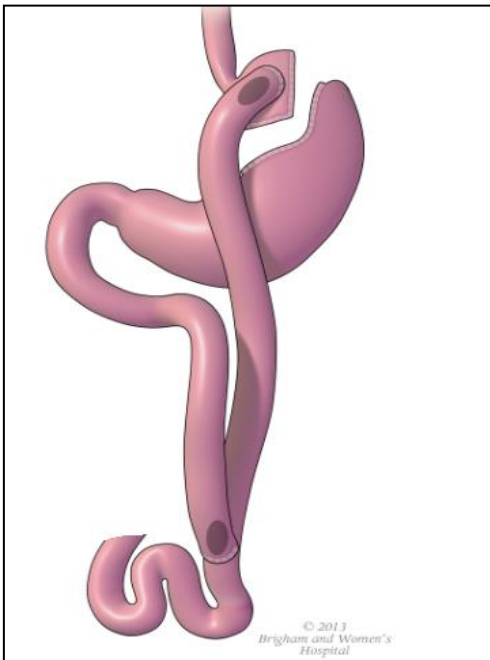
There are two main ways that gastric bypass and sleeve gastrectomy will help you to lose weight and become healthier.

- **Restriction** – Your smaller stomach will limit how much food you can eat in one sitting. The restriction will decrease over time so you will need to rely on healthy lifestyle habits.
- **Metabolic Changes** – Stomach hormones and some other signals in your body change after surgery. This can make people feel less hungry and can help with health conditions like diabetes. Your body can adapt to this change in gut hormones over time and you will probably feel hunger again.

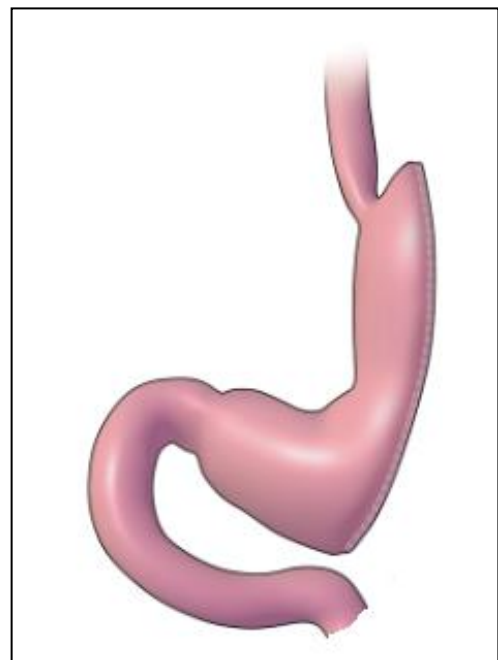
You are usually in the hospital for 1 night after sleeve gastrectomy and up to 2 nights after gastric bypass surgery



### Gastric Bypass



### Sleeve Gastrectomy



### Dumping Syndrome

Dumping syndrome affects about half of gastric bypass patients. Dumping syndrome is the body's reaction to eating and drinking foods and beverages with added sugar, such as cakes, cookies, candies, juice, and soda. These foods or beverages pass too quickly through the stomach pouch—causing symptoms such as nausea, cramping, cold sweats, dizziness, extreme tiredness, and an increase in heart rate. Usually the symptoms will stop in 1-2 hours. Lying down can help patients to recover. Eating high-fat foods, such as fried foods, causes similar symptoms.

Sleeve gastrectomy patients usually do not have dumping syndrome. However, all patients are encouraged to avoid foods and beverages with added sugar and high-fat foods.

## Skills for Success

Bariatric surgery is only a tool. Begin implementing these changes NOW and continue these habits after surgery. You must commit to a healthy lifestyle (diet, exercise, behaviors) to stay successful long-term.

### **Sip fluids throughout the day, aiming for 48-64 ounces**

Choose sugar-free, non-carbonated fluids (water, crystal light, decaf coffee/tea, zero calorie sports drinks, etc.).

Know the signs of dehydration: headaches, dizziness, dark urine.

No caffeine until stage 4 or ~6 weeks after surgery.

Avoid alcohol for 12 months after surgery.

### **Eat slowly, take small bites, chew foods to puree**

Take bites the size of a dime.

Chew, chew, chew; puree the food with your teeth.

Wait between bites to see how your stomach feels.

Aim for 30-40 minute meals.

### **Sit down to eat every 3-4 hours**

Avoid grazing, nibbling, and picking throughout the day.

Have regularly scheduled eating events.

When you're eating, just eat! Avoid distractions.

Eat off a smaller plate.

### **Avoid eating and drinking at the same time**

Wait to drink fluids until 30 minutes after you eat solid food.

It's okay to drink before eating.

*Why?* Eating and drinking at the same time can overfill your stomach and make you feel sick.

### **Plan meals and snacks in advance**

Life is busy now and it will be busy after surgery too.

You will make healthier choices when you plan ahead.

Chop/peel ingredients in advance and meal prep.

Pack food and fluids for busy days.

Bring your own food to social events if you aren't sure what will be served.

### **Stay Accountable**

Track yourself: food and beverage choices, exercise, and weight are good places to start.

Keep your appointments with our bariatric team.

Let your support team know how they can help you stay on track.

## Physical Activity

Most people need to exercise at least 250 minutes (or about 4 hours each week) to maintain weight loss. This is also equal to about 35 minutes every day. It is important to choose an activity you enjoy and, it is okay if it takes you time to build up to that amount of exercise! If needed, consider breaking up your exercise into smaller amounts throughout the day (i.e. 10 mins 3 x daily) to get started. Remember, before beginning strenuous activities, check with your doctor.

**Other benefits of exercise include:**

- Improves mood
- Improves heart health
- Improves bone health
- Boosts energy
- Keeps body strong
- Promotes better sleep

**Here are some ideas for increasing your physical activity before and after surgery. \***

*\* Please refrain from swimming until your first post-operative appointment. Your surgeon may limit other activities.*

- ✓ Walk more! You may start walking immediately after surgery.
- ✓ Make exercise a family event. Go for a walk together after dinner or on the weekend.
- ✓ Keep exercise clothes in your car to make sure you will go to the gym.
- ✓ To decrease impact on your joints, try pool exercises, water aerobics, or a stationary bicycle. \*
- ✓ Turn up the music and dance.
- ✓ Do yard work, gardening, or household chores that require brisk movement.
- ✓ Check out exercise apps on your phone or videos online.
- ✓ Try chair exercises.
- ✓ Check out a new exercise class.
- ✓ Use resistance bands or free weights to add strength activities.

**Consider using the FITT principle to progress in your physical routine.**

Frequency	Intensity	Time	Type
How often you perform these exercises.	How hard you are exercising.	How long are you exercising for?	The type of exercise you do.
Start with 1-2 times per week and increase gradually.	Add speed, inclines, repetitions or weight to keep intensifying your workouts.	Try to build up to the recommended amount of exercise: 35 mins daily or add longer exercises in fewer times weekly. I.e. 1 hour walk 4 days a week.	Try to include both <u>aerobic</u> (running, walking, swimming) and <u>strength training</u> exercise (weights, resistance bands, body weight exercises).

## Getting Ready for Surgery

### What to Buy Before Surgery





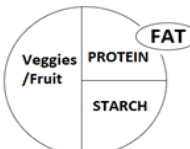
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|--|--|
| <input type="checkbox"/> Measuring Cups & Spoons | <input type="checkbox"/> Protein Shakes                |
| <input type="checkbox"/> Food Scale              | <input type="checkbox"/> Vitamin & Mineral Supplements |
| <input type="checkbox"/> Sugar-free Fluids       | <input type="checkbox"/> Body Weight Scale             |

#### Before Surgery Key Points:

- 1) See our shopping guides to find protein shakes and vitamin & mineral supplements
- 2) You will need to follow a specific diet starting 2 weeks before surgery. See separate handout called “pre-operative diet”.

### After Surgery Diet Progression

After surgery, you will follow a progressive texture diet while your stomach is healing. The chart below provides an overview of what to expect and the following pages provide more detail for each stage.

When to Start	Duration	Diet Stage	Goals and Example Foods	Vitamins
Post-Op Day 0	1 day	Stage 1: Fluids 	Sip sugar-free fluids throughout the day. No caffeine or carbonation.  → Water, crystal light, broth, decaf coffee/tea, etc.	
Post-Op Day 1 Start date: _____	9 days	Stage 2: Protein Shakes 	Continue fluid goals and aim for 60-70g protein/day from shakes.  → Protein powder with milk/water, ready-to-drink shakes	
Post-Op Day 10 Start date: _____	10 days	Stage 3A: Smooth Foods 	Continue above goals and wait 30 minutes after eating to drink.  → Greek yogurt, refried beans, tofu, SF applesauce, banana, SF pudding, oatmeal, canned fruit, protein shakes as needed to meet goals	Start <u>chewable</u> vitamins
Post-Op Day 20 Start date: _____	20 days	Stage 3B: Soft Foods 	Continue above goals and wait 30 minutes after eating to drink.  → Moist chicken, flaky fish, eggs, beans, well-cooked vegetables (no skins/peels), tomato sauce, avocado	Continue <u>chewable</u> vitamins
Post-Op Day 40 Start date: _____	Lifelong	Stage 4: Regular Textures 	Continue above goals and choose a balanced diet, prioritizing lean protein, vegetables, and fruits first, adding other foods over time.  Caffeine can be added back. No alcohol for 6-12 months.	May start pill form of vitamins if desired

## Post-Op Diet Stage 1: Fluids

**Starts:** In the hospital on either the day of surgery or the first day after surgery.

**Date to start:** \_\_\_\_\_

**Lasts for:** Up to 1 day

**What to do:**

1. Sip sugar-free, non-carbonated, non-caffeinated fluids throughout the day
  2. Watch for signs of dehydration (dark color urine, headaches, dizziness)
- 

**Examples of fluids:**

- Water
- Crystal Light, MiO, or other sugar-free flavorings
- Decaf coffee and tea
- Broth
- Fruit-flavored water (Hint Water or homemade by floating fruit in water)
- Sugar-free Jell-o
- Sugar-free popsicles
- Sugar-free sports drinks (PowerAde Zero, Propel, Gatorade Zero)
  - G2 only recommended with severe diarrhea and vomiting

You will be in the hospital for this entire diet stage and you will be given the right types of fluids. The nurses will guide you to sip enough fluids during the day.

**Stage 1 Key Points:**

- Fluids are the number one priority.
- You will only be able to sip small amounts of fluid at one time. Pace yourself throughout the day.
- Gulping and chugging fluids will cause stomach pain.
- Avoid caffeine until Stage 4. It irritates the stomach.
- Carbonation can cause gas, belching, bloating, and stomach discomfort. Some people never tolerate carbonation after surgery.
- You can use artificial sweeteners such as PureVia and Truvia (Stevia) and Nectresse (monk fruit), or others: Equal (Aspartame), Sweet & Low (Saccharin), Splenda (Sucralose)
- If you are experiencing gas pain or discomfort, try walking around.

## Post-Op Diet Stage 2: Protein Shakes

**Starts:** In the hospital on either day of or second day after surgery.

**Date to start:** \_\_\_\_\_ **Lasts for:** 8-9 days

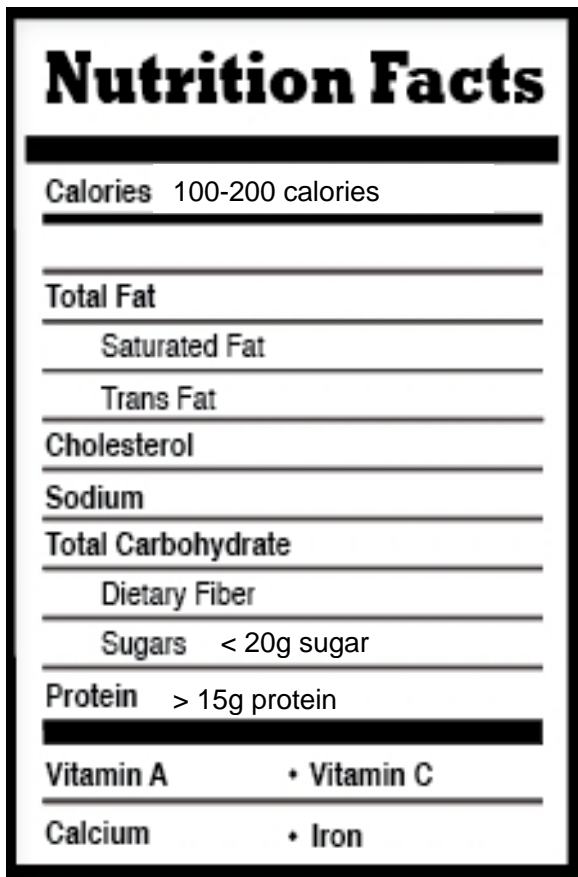
**What to do:**

1. Aim for 48-64 oz fluids every day. Prioritize hydration before protein shakes
2. Drink 60-70 grams of protein from protein shakes daily
  - If you have not finished the protein drink after 1 hour, stop drinking. Try again in ~2 hours
  - It is normal to not reach your goals right away. Work up to these goals every day.

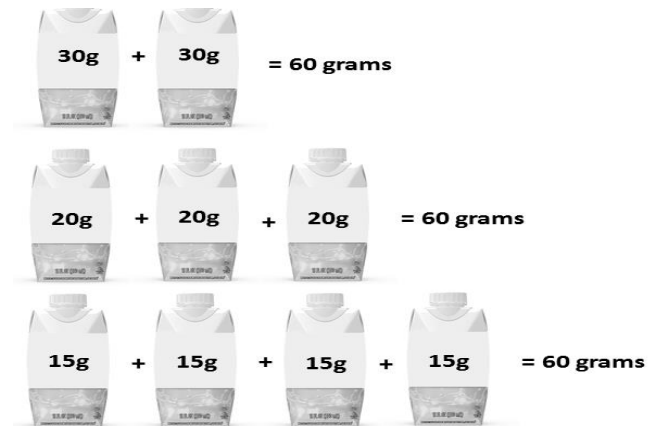
### Each protein shake should have:

- ✓ **Between 100-200 calories**      ✓ **15g or more protein**      ✓ **Less than 20g sugar**

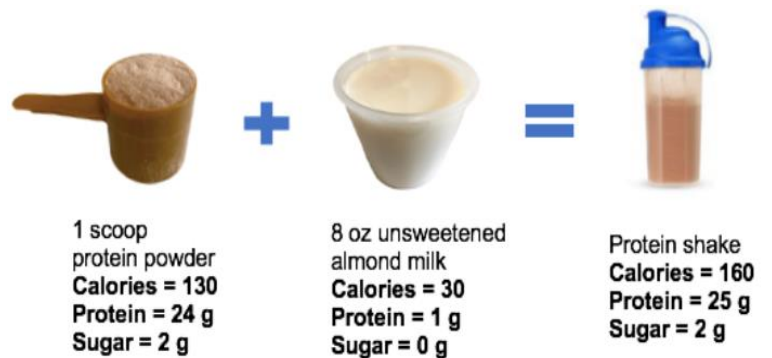
Find these numbers on a nutrition label:



▶ If you choose a premade shake, you may drink 2-4 shakes daily to reach 60 grams protein:



▶ If you use a protein powder, be sure to add the calories, protein and sugar of the powder **and** the liquid (milk, almond milk, etc.) to meet the guidelines:





## Post-Op Diet Stage 2: Protein Shakes (continued)

### Possible problems after surgery:

#### Lactose Intolerance:

Lactose is the natural sugar in milk. Sometimes after surgery, your body cannot digest this sugar. This causes problems like nausea, cramping, bloating, gas, and/or diarrhea. It is not normal to have these problems from drinking protein shakes, if you do, you might be experiencing lactose intolerance.

#### What if you are experiencing lactose intolerance?

- Stop drinking protein shakes for 24 hours. Keep drinking your fluids.
- When you start drinking protein shakes again, avoid any shakes that have milk, 'whey protein **concentrate**,' or 'milk protein **concentrate**' in the ingredient list.
- Instead, choose a protein shake that is made from 'whey protein **isolate**.' The lactose has been filtered out of whey protein isolate.
- Call your dietitian if you need help finding lactose-free options.

#### Sensory changes:

##### If taste is bothering you:

- Add your own flavor!
  - Add extracts (vanilla, almond, etc.) which are found in the baking aisle at grocery stores. You only need a few drops, add slowly and taste along the way
  - Add sugar-free syrups. Find at the grocery store or online. Popular brands are Da Vinci Gourmet and Torani
- Flavor your shakes with spices such as cinnamon, ginger, nutmeg, and cloves.
- Flavor with unsweetened cocoa powder or powdered peanut butter; limit to 1 tablespoon daily.
- Consider unsweetened options such as an unflavored protein powder or chicken soup flavor (like chicken broth!)

##### If smell is bothering you:

- Drink your shake from a bottle with a small opening.
- Drink your shake using a straw.
- Drink your shake at a very cold temperature.

##### If you need to chew:

- Pour your protein shake into a popsicle or ice cube tray and freeze to make a protein popsicle.
- Semi-freeze your protein shake or blend it with ice to make a slushy.

#### Stage 2 Key Points:

- Be aware of signs of dehydration: sudden lightheadedness or dizziness, headaches, and dark urine color.
- Experiment with flavors and temperatures to improve your fluid intake. Some patients prefer ice cold while others prefer room temperature or warmer beverages.
- Keep track of the amount of protein (grams) and fluids (ounces) that you are drinking by using a food/beverage log.
- Changes in bowel regimens, such as less frequent movements or loose stools, are normal. If you are having discomfort, contact the bariatric team or refer to page 27 for tips and solutions.

## Post-Op Diet Stage 3A: Smooth Textures

**Starts:** 10 days after your surgery date

**Lasts for:** 10 days

**Date to start:** \_\_\_\_\_

**What to Do:**

1. Keep sipping fluids; Goal: 48-64 ounces daily
2. Prioritize protein foods first to reach your 60-70 gram daily goal. Then, may include non-protein foods
3. Based on typical portion sizes, you will need an eating event 5-6 times daily
4. Start taking your chewable vitamin and mineral supplements

**Only choose foods listed on this page. Your stomach is still healing and other foods may be irritating. See Stage 3A handout for specific texture, ingredient and recipe descriptions.**

**Protein Foods**

- Egg whites or egg beaters (no whole eggs)
- Fat-free Greek yogurt (without fruit chunks)
- Refried beans (black / pinto, low fat)
- Low-fat cottage cheese
- Tofu
- Part-skim ricotta cheese
- Protein shakes and powders

**Non-Protein Foods**

- Fat-free or light yogurt
- Unsweetened applesauce, canned pears or peaches (in own juice or water/no syrup)
- Soft banana
- Oatmeal, cream of wheat, farina, maizena
- Pureed vegetable (no peel, no seeds)
- Sugar-free pudding

**How do I know how much protein I am eating?**

It is important to keep track of how much protein you are eating. To do this, refer to page 21 and read nutrition labels to adjust for the amount you ate. See this Greek yogurt example:

- The serving size is “1 tub.” →
- If you eat the whole tub, you ate 15g protein. →
- If you eat half of the tub, then you only ate half the protein. In this case, half of 15 is 7.5 grams.



**15 g protein** **7.5 g protein**

<b>Nutrition Facts</b>	
Serving Size 1 Tub (150g)	
Amount per Serving	
<b>Calories 90</b>	Fat Cal 0
%Daily Value	
<b>Total Fat 0g</b>	<b>0%</b>
Saturated Fat 0g	<b>0%</b>
Trans Fat 0g	
<b>Cholesterol &lt;5mg</b>	<b>1%</b>
<b>Sodium 60mg</b>	<b>3%</b>
<b>Potassium 210mg</b>	<b>6%</b>
<b>Total Carbohydrate 7g</b>	<b>2%</b>
Dietary Fiber 0g	<b>0%</b>
Sugars 5g	
<b>Protein 15g</b>	<b>30%</b>
Vitamin A 0%	• Vitamin C 0%
Calcium 15%	• Iron 0%

## Post-Op Diet Stage 3A: Smooth Textures (continued)

### Stage 3A Key Points:

- Remember to stay hydrated but avoid drinking while eating. Wait 30 minutes after eating to drink.
- Aim to eat something every 3-4 hours. You might not feel hungry, but you still need to eat regularly.
- Some days you won't have room for everything. Do your best to reach your protein goal first.
- Stop eating or drinking at the first sign of fullness. "Fullness" may feel like chest pressure, runny nose, hiccups, watery eyes, or nausea.
- Keep track of how much you are eating and drinking using a food log (journal, apps, etc.). See page 20 for an example.
- Seasonings and spices are fine. You do not need to eat bland foods.

### Example Day

Eating Event	Food or Protein Shake	Grams Protein
1	Ready to drink protein shake (i.e. premier protein, Ensure Max, etc.)	30 grams
2	1 Scrambled egg white	6 grams
3	1.5 ounces pan-fried tofu	6 grams
4	¼ cup oatmeal cooked with ¼ scoop protein powder	7 grams
5	¼ cup cottage cheese with chive	7 grams
6	¼ cup Chocolate Almond Bliss with ricotta cheese*	7 grams
	<b>Total</b>	<b>59 grams</b>

\*Ask your dietitian for this recipe or find it on our website!

## Post-Op Diet Stage 3A: Smooth Textures (continued)

### Vitamin and Mineral Supplements:

You will need to take vitamin and mineral supplements for the rest of your life after surgery. We recommend chewable or liquid supplements until stage 4. At stage 4, you can change to pill form of vitamins if you prefer.

### Multivitamin with Minerals:

- Take a 'complete' multivitamin(s) daily; dose will vary based on brand of multivitamin.
- Complete multivitamins contain iron, zinc, folic acid, and copper.
- Do not take gummy multivitamins – these don't have all the right nutrients for your bariatric needs.
- Separate your multivitamin(s) with iron from calcium by at least 2 hours.

### Vitamin B<sub>12</sub>:

- Your body needs 350-500 micrograms vitamin B<sub>12</sub> daily after surgery.
- Your multivitamin might have this amount of vitamin B<sub>12</sub>, read the label to double check. If not, you need an additional B12 vitamin (sublingual, liquid or nasal spray options until stage 4).
- Refer to our shopping guide for more assistance.
- You can take vitamin B<sub>12</sub> at any time or with any other supplements.

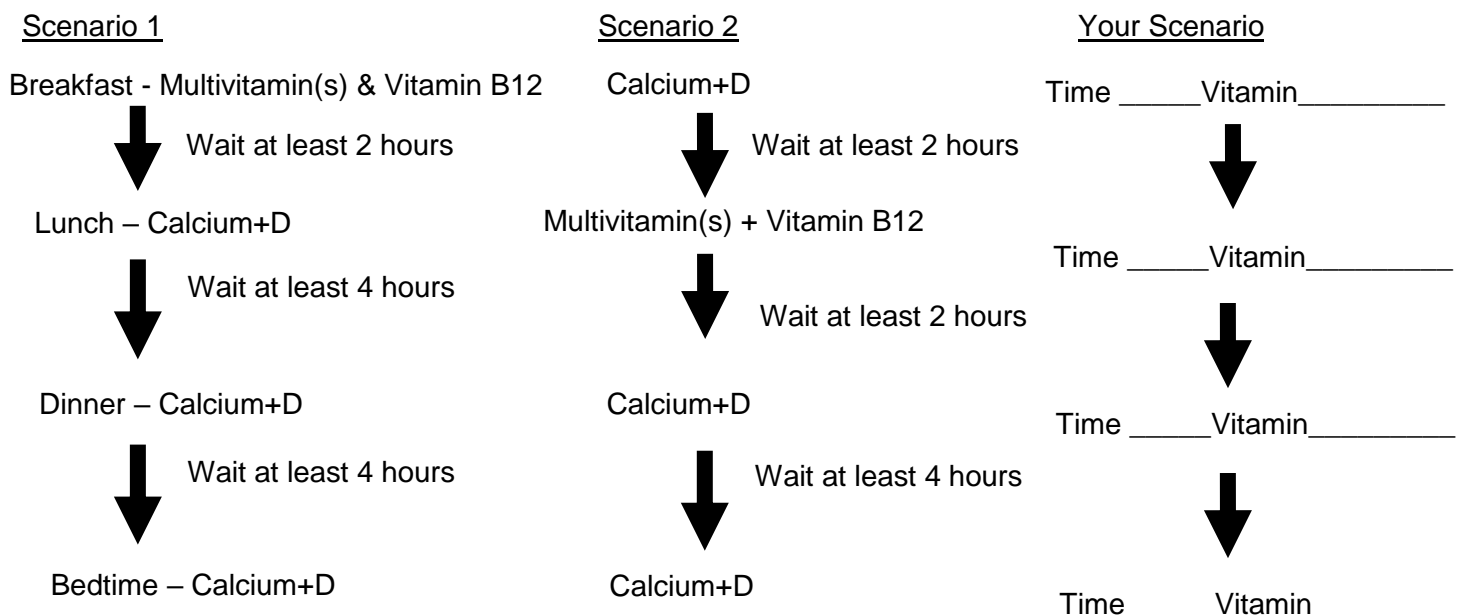
### Calcium Citrate with Vitamin D:

- Take 500-600 mg of calcium citrate 2-3 times daily for a total daily goal of 1200-1500 mg.
  - Your body can only absorb 600 mg of calcium at one time.
  - Check serving size on calcium nutrition facts label to take the proper dose.
  - Separate calcium doses by at least 4 hours.
- Separate multivitamin(s) with iron from calcium by at least 2 hours.
- You can meet your calcium needs from a combination of food and supplements. Talk to your dietitian.

### Other Supplements:

Some patients may need extra vitamins and minerals, such as iron, vitamin D, or B vitamins. We will check your vitamin and mineral levels regularly through lab tests and discuss extra supplements as needed.

### Here are two suggestions for separating your supplements:



## Post-Op Diet Stage 3B: Soft Textures

**Starts:** 20 days after your surgery date

**Date to start:** \_\_\_\_\_

**Lasts for:** At least 21 days / 3 weeks

### What to Do:

1. Keep sipping fluids (48-64 ounces daily following stage 1 guidelines)
2. Have a protein shake or eat a protein food 5-6 times per day (minimum goal 60-70 grams daily)
3. Keep taking vitamin and mineral supplements
4. Only eat foods listed on this page and from past stages as your stomach is still healing

### Food Choices in Stage 3B

#### Protein Foods

- Egg, egg whites, or egg beaters
- Fat-free Greek yogurt (without fruit chunks)
- Low-fat cottage cheese
- Part-skim ricotta cheese
- Tofu
- Chicken or turkey (dark meat is fine)
- Fish (flaky fish like tuna, cod, haddock, salmon, and tilapia)
- Veggie burger
- Beans and lentils
- Protein shakes or powders

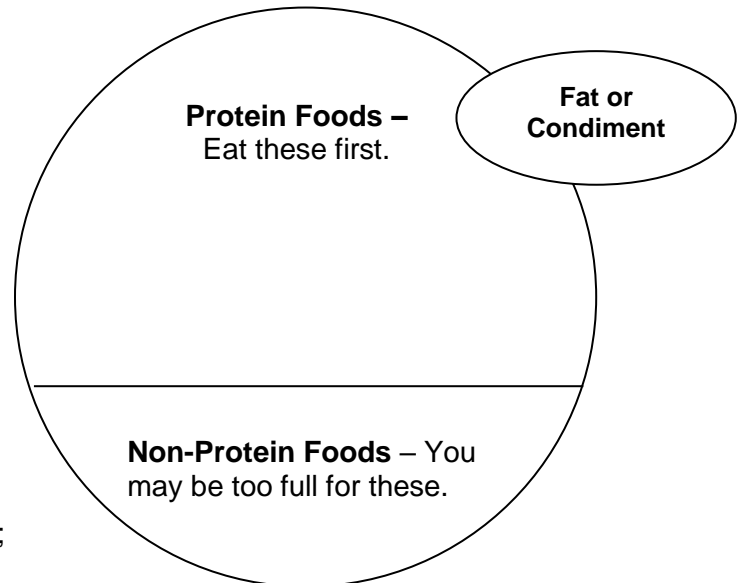
#### Non-Protein Foods

- Fat-free or light yogurt (non-Greek)
- Unsweetened applesauce
- Canned pears or peaches (in own juice or water; no syrup)
- Soft banana
- Oatmeal, cream of wheat, or farina
- Tomato sauce
- Well-cooked non-starchy or starchy vegetables with no skins or peels
- Reduced-fat or light cheese

#### Fats

- Light mayonnaise or salad dressing
- Hummus
- Avocado
- Smooth nut butter (not crunchy)
- Butter or oil

#### Example Plate – it might be this small!



#### How to Count Grams of Protein (if the food does not have a nutrition label)

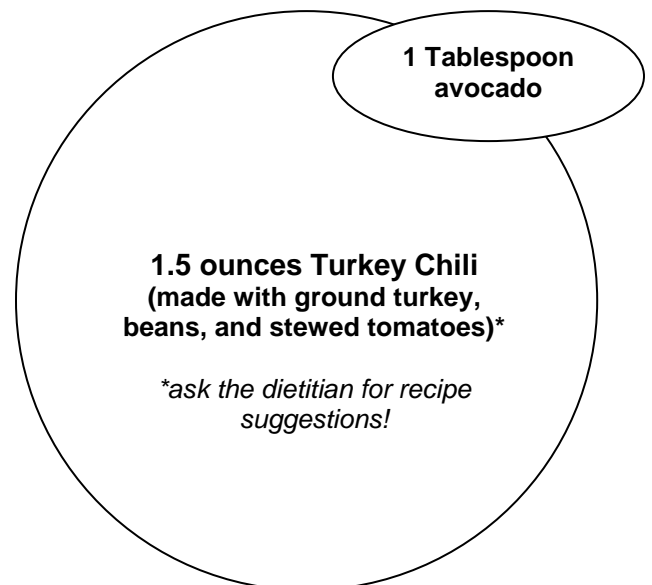
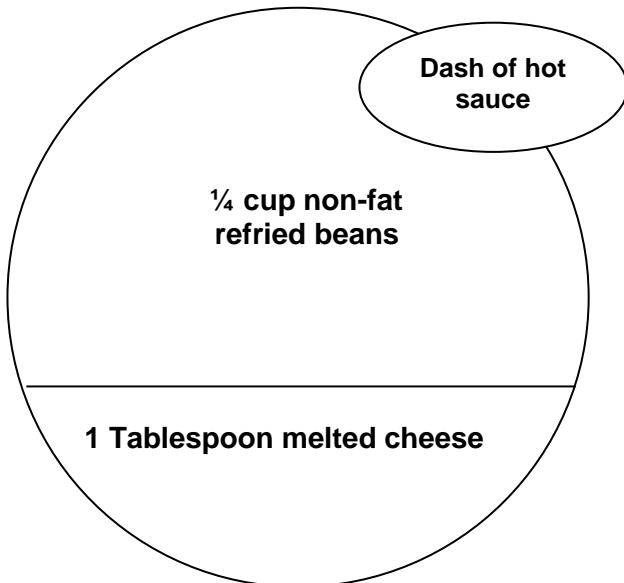
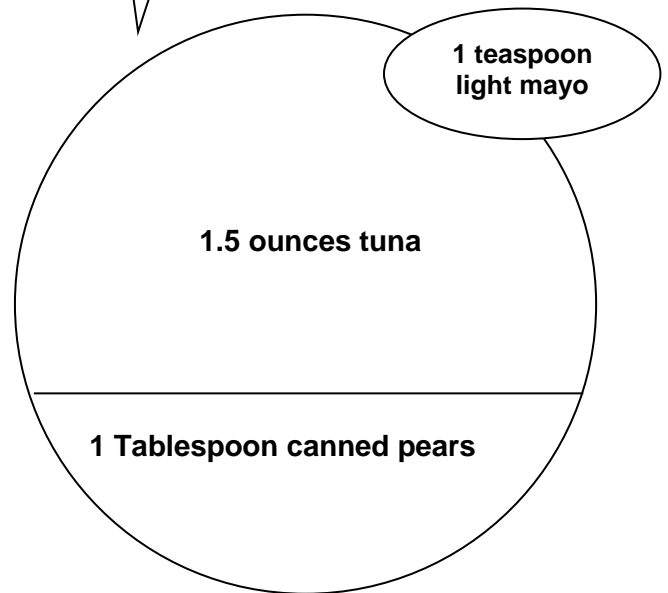
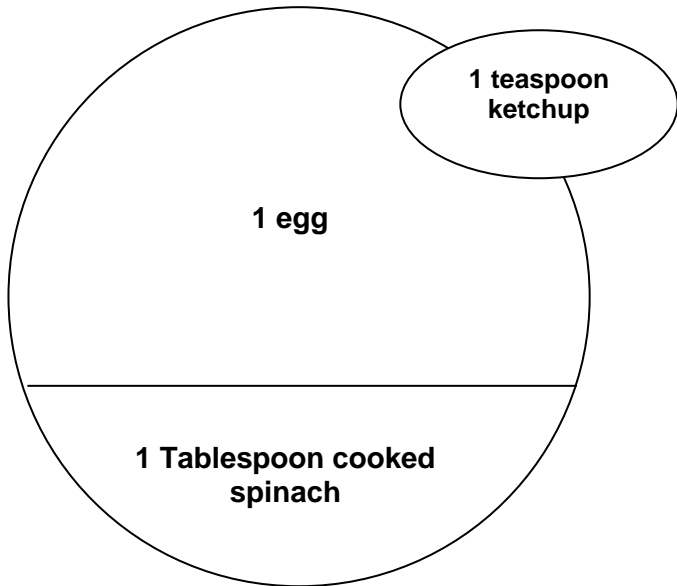
##### 7 grams of protein =

- 1 ounce chicken/turkey/fish
- 1 egg
- ¼ cup egg substitute
- 2 oz firm tofu / 3 oz soft tofu
- ½ cup beans

See page 21 for more details

## Post-Op Diet Stage 3B: Soft Textures (continued)

Here are some examples of eating events in stage 3B. You will receive recipe ideas from the dietitian and you can find them on our website!



## Post-Op Diet Stage 3B: Soft Textures (continued)

### Stage 3B Key Points:

- Think “fork-mashable” for the appropriate texture. If the food can be mashed easily with a fork, it’s probably soft enough to eat in this stage.
- You might not feel hungry but you still need to eat regularly. Space eating events evenly during the day, about every 3-4 hours. Set reminders or timers to help you remember to eat if helpful!
- Some days you won’t have room for everything. Do your best to reach your protein goal first.
- If food feels like it is “stuck”,
  - **Do not panic** and **do not drink water.**
  - Stay calm, move around, and it will pass.

After the sensation passes, think about what may have gone wrong...

- **Ate too fast?** Take 30 minutes for each eating event and pause after each bite.
- **Didn’t chew enough?** Chew until your food is pureed by your teeth.
- **Food too tough?** Make sure you are only eating foods from stages 3B and earlier.
- **Too full?** Try to stop before you get “over-full” which can feel like chest pressure or nausea.
- **Food too dry?** Dry foods may be hard to tolerate. Keep meat tender and moist.
  - Use a slow cooker, marinate meats, cook in foil packets, avoid over-cooking.
  - Add broth when reheating meat in the microwave to keep it moist.
- Dehydration can still happen. You are likely getting back to your daily routine and will be busy. Remember to drink your fluids in between eating times.
- You may not tolerate certain textures the first time you try them. If you have trouble with a food even when you are eating very carefully, avoid the food for 2-3 weeks before trying again.

## Post-Op Diet Stage 4: Regular Textures

**Starts:** 40 days after your surgery date – Only if meeting protein goals regularly in Stage 3B

**Date to start:** \_\_\_\_\_

**Last for:** Forever, but your meal plan may change over time.

### What to Do:

1. Keep sipping fluid 48-64 ounces daily (continue sugar free, non-carbonated choices)
2. Use this meal plan as a guide for a balanced diet; focusing on protein first (at least 60-70grams daily)
3. Keep taking vitamin and mineral supplements; you can change to pill form at this stage if you prefer

### Meal Plan

Use the meal plan to guide your food choices throughout the day. Each checkbox is a serving of food from that food group. In the early months after surgery, you will not have room to eat all the foods in the meal plan. Focus on foods from the protein, vegetable, and fruit groups first.

8 cups of fluid

8 protein servings

2 vegetable servings

2 fruit servings

1 dairy serving

2 fat servings

3 starch servings

Refer to pages 21-26 for serving sizes in each food group.

### How do I start in Stage 4?

- In Stage 4, you may not tolerate every food you try so be patient with your stomach. Tolerance usually improves with time. See below for possible 'problem foods' to guide your choices.
- The meal plan is not one size fits all. Your dietitian will help you change your meal plan as needed.

### Possible 'Problem Foods'

Your stomach can be sensitive for 3-6 months after surgery, and sometimes longer. The following foods have unique textures that may be difficult to tolerate if eaten too soon. Be cautious!

**Protein:** Tough red meat, hamburger, lobster, scallops, clams, shrimp

**Fruits:** Stringy, thick skins, peels (like oranges, grapes, pineapple)

**Vegetables:** Stringy, fibrous (like asparagus, peapods, celery, lettuces)

**Starches:** Rice, pasta, doughy breads, popcorn



**Frequently Asked Questions for Navigating Stage 4 and Beyond**

**Q: How much should I be eating in stage 4?**

**A:** Appropriate portion sizes will look a bit different for everybody. Avoid distractions and eat slowly so you can start paying attention to your body's cues for fullness. Stop eating at the first sign of fullness, which may feel like pressure in your upper chest, nausea, runny nose, or hiccups.

**Q: What will my meals look like?**

**A:** Look to your Stage 4 meal plan to guide food choices. Remember to choose protein foods first, then vegetables or fruits, and eat starches last. Use fats as a flavoring or to keep foods moist.

**Q: Will my appetite return?**

**A:** The hormone changes experienced initially might not last forever and it is normal for your appetite and hunger to gradually return after surgery. That is why it is important to establish healthy meal routines and avoid skipping meals. Foods high in protein and fiber help control hunger so fill up on these foods. Avoid eating out of habit or from behavioral triggers like boredom, stress, and emotions.

**Q: Will I be able to enjoy my favorite foods ever again?**

**A:** After the initial recovery period and in the long-term we would expect you to eat a wide variety of foods and no foods are off limits completely. We will work with you to carefully plan meals and snacks to help ensure you are meeting your nutrition needs while including foods that you enjoy.

**Q: How much weight will I lose?**

**A:** Every patient will lose a different amount of weight, at different paces. It's important to never compare your rate of weight loss with other patients because everyone is different. Most weight loss occurs in a "stair-case fashion" where patients lose a certain amount of weight followed by a stall period. Try to look for non-scale indicators of progress such as body composition changes, gains in energy levels and a reduction of medications.

**Q: How can I be successful with keeping weight off?**

**A:** Be aware of picking or grazing. Are you eating something just because it's available to you? Avoid unplanned eating moments and try to control your environment to minimize these opportunities. Have scheduled and structured eating times. Meal prep and planning can also help minimize unplanned eating.

Stay connected to the program by being active in support groups and/or attending your individual appointments on a regular basis. *The surgery is just a tool and your lifestyle, eating, and exercise patterns will determine how successful you will be long-term!* Some weight regain can happen to most patients, and it most likely to happen a year and a half after surgery. Some patients can regain higher amounts and it is important to address this with your bariatric team as soon as possible.

However, months or years later, patients sometimes experience a return of problematic eating habits. This can include emotionally-triggered eating, grazing, meal skipping, difficulty with portion control, restrictive eating, or even "binge" eating (feeling a loss of control). Please keep in mind that these behaviors, while worrisome, can be addressed with our team.

## Post-Op Diet Stage 4: Regular Textures (continued)

### Sample Meal Plans

These sample plans show how eating amounts can change over time. Choose the foods you like and tolerate!

#### Just starting Stage 4 – (begin no earlier than 6 weeks after surgery)

8 cups of fluid

8 protein servings

2 vegetable servings

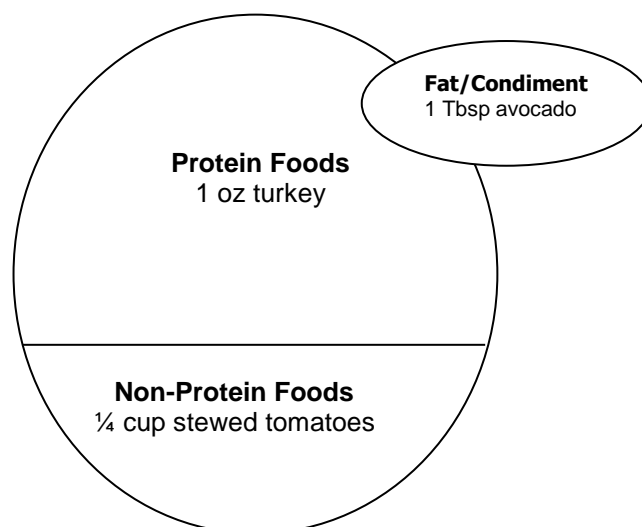
2 fruit servings

1 dairy serving

2 fat servings

3 starch servings

Time	Food	Fluid (oz)	Protein (g)	Vitamins
8 AM	1 ½ scrambled eggs (1 ½ protein), ¼ banana (½ fruit)		10	Multivitamin(s)
9 AM		8 oz decaf tea		
10 AM	3 oz fat-free Greek yogurt (1 protein), ½ cup strawberries (½ fruit)		7	75 mg calcium from food
11 AM		8 oz water		
1 PM	Homemade chili made with 1 oz turkey (1 protein), ¼ cup stewed tomatoes (½ vegetable), 1 tablespoon avocado (1 fat)		7	500 mg calcium supplement
2 PM		8 oz Crystal Light		
3 PM	1 scoop protein powder (2 ½ protein) in 8 oz skim milk (1 dairy)		26	300 mg calcium from food
4 PM		8 oz tea		
5 PM		8 oz water		
6 PM	1 oz fish (1 protein), ¼ cup cooked green beans (½ vegetable)		7	500 mg calcium supplement
7 PM		8 oz water		
8 PM		8oz Crystal Light		
9 PM	¼ cup ricotta cheese (1 protein)		7	75 mg calcium from food
10 PM		8 oz tea		
	<b>Total</b>	<b>64 oz</b>	<b>64 grams</b>	



## Post-Op Diet Stage 4: Regular Textures (continued)

Feeling comfortable with Stage 4 – about 8 months post-op

8 cups of fluid

8 protein servings

2 vegetable servings

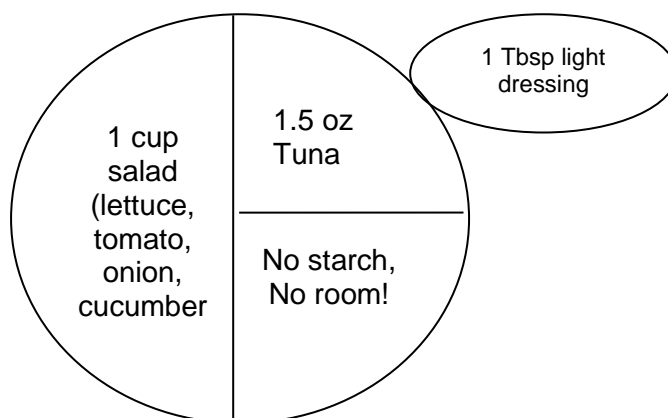
2 fruit servings

1 dairy serving

2 fat servings

3 starch servings

Time	Food	Liquid (oz)	Protein (g)	Vitamins
8 AM	1 scoop protein powder (2 ½ protein) in 8 oz skim milk (1 dairy)		26	300 mg calcium from food
9 AM		8 oz decaf tea		
11 AM		8 oz water		
12 PM	1.5 oz tuna (1.5 protein), 1 cup salad vegetables (lettuce, tomatoes, onion, cucumber) (1 vegetable), 1 Tbsp light dressing (1 fat)		14	500 mg calcium supplement
2 PM		8 oz Crystal Light		
3 PM	6 oz Greek yogurt (2 protein)		14	150 mg calcium from food
4 PM		8 oz decaf tea		
5 PM		8 oz water		
6 PM	1 oz ground turkey (1 protein), ¼ cup beans (½ protein, ½ starch), ½ cup stewed tomatoes (1 vegetable)		10	500 mg calcium supplement
7 PM		8 oz water		
8 PM		8oz Crystal Light		Multivitamin(s)
9 PM	¼ cup roasted chickpeas (½ protein, ½ starch), 2 clementines (1 fruit)		3	
10 PM		8 oz decaf tea		
	<b>Total</b>	<b>64 oz</b>	<b>67 grams</b>	

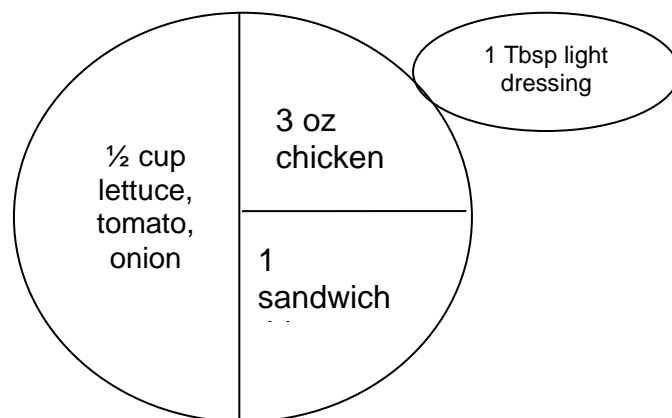


## Post-Op Diet Stage 4: Regular Textures (continued)

### Long-term Stage 4 – about 2 years post-op

- 8 cups of fluid ☒☒☒☒☒☒☒☒
- 8 protein servings ☒☒☒☒☒☒☒☒
- 2 vegetable servings ☒ ☒
- 2 fruit servings ☒ ☒
- 1 dairy serving ☒
- 2 fat servings ☒ ☒
- 3 starch servings ☒ ☒ ☒

Time	Food	Liquid (oz)	Protein (g)	Vitamins
8 AM	6 oz Greek yogurt (2 protein), ½ banana (1 fruit), ½ cup bran flakes (1 starch)		14	150 mg calcium from food
9 AM		8 oz decaf tea		
10 AM				Multivitamin(s)
11 AM		8 oz water		
12 PM	3 oz chicken (3 protein), lettuce, tomato, onion (1/2 vegetable), 1 sandwich thin (1 starch), 1 tablespoon avocado (1 fat)		21	500 mg calcium supplement
2 PM		8 oz Crystal Light		
3 PM		8 oz tea		
4 PM	½ cup cottage cheese (2 protein), 1 cup blueberries (1 fruit), 2 tablespoons sliced almonds (1 fat)		14	75 mg calcium from food +500 mg calcium supplement
5 PM		8 oz water		
6 PM		8 oz water		
7 PM	2 oz lean ground turkey meatballs (2 protein), 1/2 cup whole wheat pasta (1 starch), ¼ cup tomato sauce (1/2 vegetable), ½ cup cooked spinach (1 vegetable), ¼ cup light mozzarella (1 dairy)		14	
8 PM		8oz Crystal Light		500 mg calcium supplement
9 PM		8 oz tea		
	<b>Total</b>	<b>64 oz</b>	<b>63 grams</b>	



## Post-Op Diet Stage 4: Regular Textures (continued)

Use this meal planning worksheet to plan your individual eating schedule or track your food intake. Keep track of fluid and protein to help hit your minimum goals of 64 ounces fluid and 60-70 grams protein!

8 cups of fluid

8 protein servings

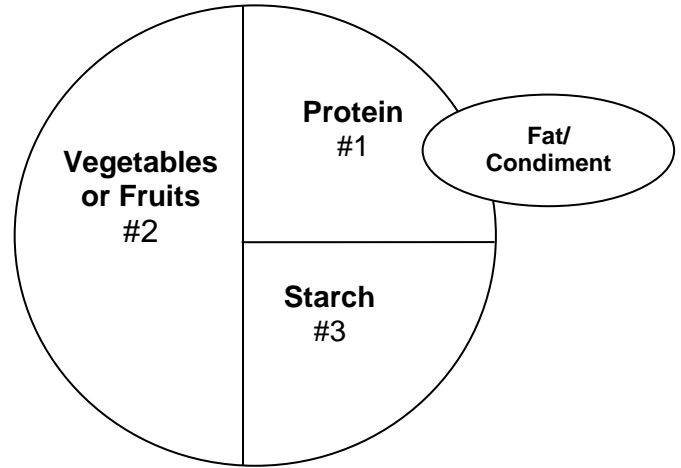
2 vegetable servings

2 fruit servings

1 dairy serving

2 fat servings

3 starch servings

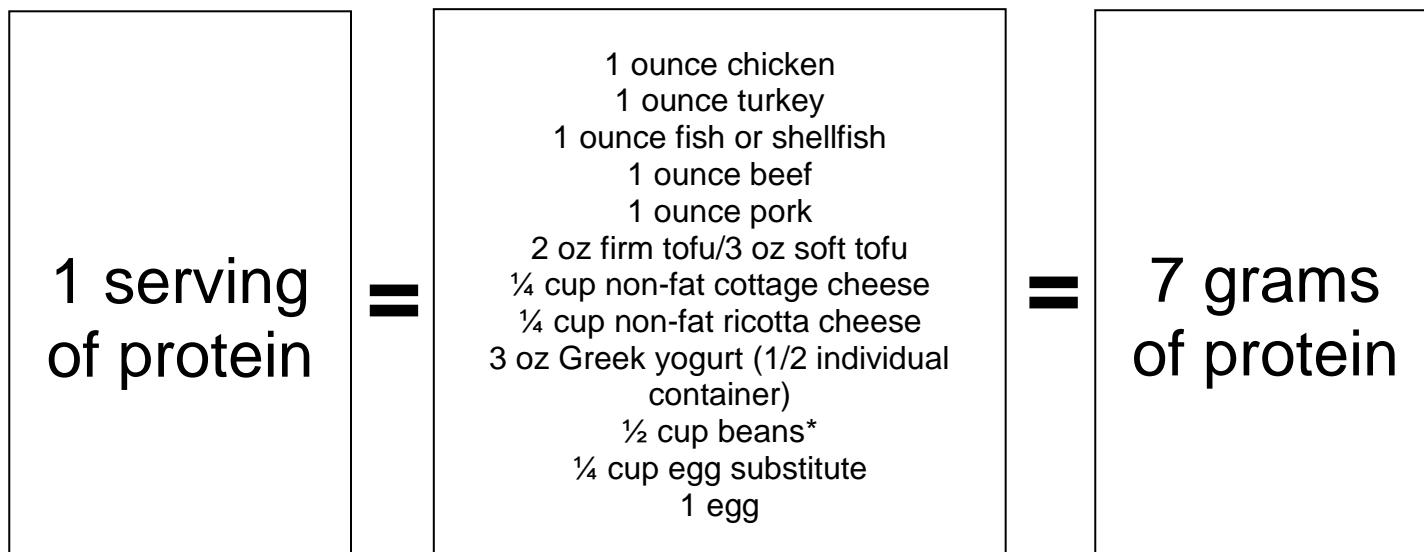


Time	Food	Liquid (oz)	Protein (g)	Vitamins
	<b>Total</b>	<b>oz</b>	<b>g</b>	

## Serving Sizes

### Protein Foods

Each protein food contains 7 grams of protein per serving. You may eat multiple servings at a time.



*\*1/2 cup beans is equal to 1 protein serving + 1 starch serving*

1 ounce or 1 serving = about 7 grams of protein  
2 ounces or 2 servings = about 14 grams of protein  
3 ounces or 3 servings = about 21 grams of protein

- Choose lower fat protein foods (like skinless chicken breast, 99% fat free ground turkey).
- Limit red meat (beef, lamb, pork).
- Processed meats can increase a person's risk of colorectal and stomach cancer. Processed meats include hot dogs, pepperoni, salami, sausages, corned beef, ham, bacon, pastrami, and any other meats that have been cured, smoked, salted or treated with any chemical preservatives. The dietitian can provide you with more information about processed meats.

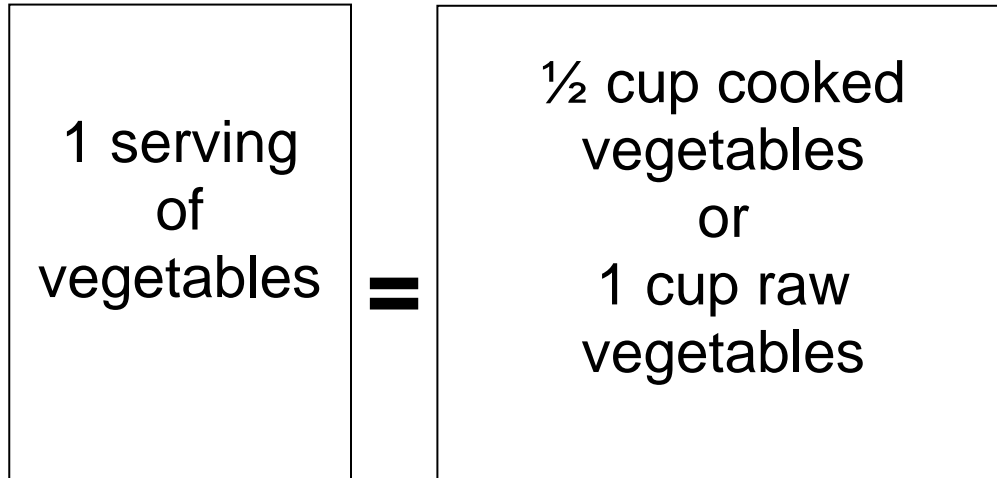
**Remember to meet 8 protein servings every day (which is about 60-70 g of protein daily)!**

## Serving Sizes (continued)

### Non-Starchy Vegetables

Each vegetable serving contains 5 grams or less of carbohydrates and 2-3 grams of fiber per serving.

*Fresh and frozen vegetables are ready to eat! Rinse canned vegetables to remove some salt.*



#### Examples of non-starchy vegetables:

Artichoke  
Asparagus  
Beets  
Broccoli  
Brussels Sprouts  
Cabbage  
Carrots  
Cauliflower  
Celery  
Chayote  
Cucumber  
Eggplant  
Endive

Green beans  
Jicama  
Kale  
Kohlrabi  
Lettuce  
Mushrooms  
Mustard greens  
Okra  
Onions  
Peppers  
Radishes  
Rutabaga

Salad Greens  
Sauerkraut  
Scallion/chive  
Spinach  
Sprouts  
Snap Peas  
Summer Squash  
Tomato  
Turnips  
Water Chestnuts  
Zucchini

**Starchy vegetables (corn, peas, potatoes, plantains, yuca (manioc), winter squash) are found on the Starches List (page 26).**

**Aim for at least 2 servings of non-starchy vegetables every day!**

## Serving Sizes (continued)

### Fruits

Each fruit serving contains 15 grams of carbohydrates and 2 or more grams of fiber.

Use fresh, frozen or canned fruits with no sugar added.

Eat fruit in its whole form instead of blending or juicing. Whole fruit will fill you up more!

#### Fresh, Frozen, & Unsweetened Canned Fruit

Apple (2 in. across).....	1 apple
Applesauce (unsweetened) .....	½ cup
Apricots (canned).....	½ cup or 4 halves
Apricots (medium, fresh).....	4 apricots
Banana (8 in. long).....	½ banana
Blackberries .....	¾ cup
Blueberries .....	¾ cup
Cantaloupe .....	1 cup cubes
Cherries (canned).....	½ cup
Cherries (fresh).....	12 cherries
Figs (fresh).....	2 figs
Grapefruit (medium).....	½ grapefruit
Grapefruit (segments).....	¾ cup
Grapes .....	15 grapes
Honeydew melon .....	1 cup cubes
Kiwi .....	1 kiwi
Mandarin oranges.....	¾ cup
Mango .....	½ mango
Nectarine (2 ½ in. across).....	1 nectarine
Orange (2 ½ in. across).....	1 orange
Papaya.....	1 cup
Peach (fresh).....	1 peach or ¾ cup
Peaches (canned).....	½ cup (2 halves)
Pear (fresh).....	½ large or 1 small
Pears (canned).....	½ cup or 2 halves
Persimmon .....	2 persimmons
Pineapple (canned).....	1/3 cup
Pineapple (fresh).....	¾ cup
Plum .....	2 plums
Pomegranate.....	½ of fruit
Raspberries .....	1 cup
Strawberries (whole).....	1 ¼ cup
Tangerine (clementines).....	2 tangerines
Watermelon .....	1 ¼ cup cubes

Every fruit & amount  
listed on this page  
=  
1 serving of fruit

#### Dried Fruit (no added sugar)

*Serving sizes for dried fruits are small  
because they are calorie-dense foods.*

Apples.....	4 rings
Apricots.....	7 halves
Dates.....	2 ½ medium
Figs.....	1 ½
Prunes.....	3 medium
Raisins.....	2 Tablespoons
Dried cranberries.....	2 Tablespoons

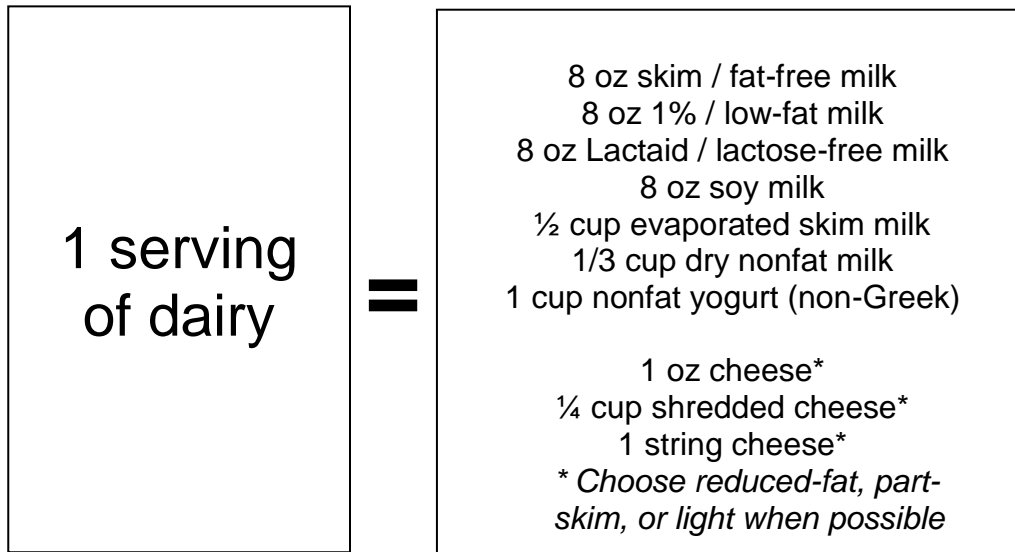
**Aim for 2 servings of  
fruit every day!**



## Serving Sizes (continued)

### Dairy

Each serving of dairy contains 6-8 grams of protein. Watch out for added sugars by reading the food label.



**Aim for 1 serving of  
dairy every day!**

## Serving Sizes (continued)

### Fat

Each serving of fat contains 5 grams of fat. *Conversion tip:* 1 Tablespoon = 3 teaspoons

1 serving  
of fat

=

2 teaspoons of nut butter  
1 tablespoon avocado  
1 teaspoon butter  
1 tablespoon light tub margarine  
1 teaspoon mayonnaise  
1 tablespoon light mayonnaise  
1 teaspoon oil (olive, canola)  
10 small or 5 large olives  
2 teaspoons creamy salad dressing  
1 tablespoon light creamy dressing  
1 tablespoon oil-based dressing  
2 tablespoons light salad dressing  
2 tablespoons of hummus  
6 almonds  
2 whole pecans  
10 small peanuts  
2 whole walnuts  
1 teaspoon pumpkin seeds  
1 tablespoon other nuts and seeds

**Limit to 2-3 servings of  
fat every day!**

## Serving Sizes (continued)

### Starches

Each serving contains 15 grams of carbohydrates.

Every food &  
amount listed on  
this page  
=  
1 serving of starch

Choose 100% whole grain / whole  
wheat options whenever possible!

#### Cooked Beans/Peas/Legumes (also count as 1 protein)

Beans and legumes (kidney, pinto, black, lentils,  
chickpeas, black-eyed peas)..... $\frac{1}{2}$  cup  
Baked beans..... $\frac{1}{4}$  cup

#### Breads

Bagel (from cafe)..... $\frac{1}{4}$  (1 oz)  
Bagel (pre-packaged, grocery store)  $\frac{1}{2}$  (1 oz)  
Bread sticks.....2 (2/3 oz)  
English muffin..... $\frac{1}{2}$   
Hamburger or hot dog bun..... $\frac{1}{2}$  (1 oz)  
Pita, 6 in. across..... $\frac{1}{2}$   
Plain roll, small.....1 (1 oz)  
Bread.....1 slice (1 oz)  
Tortilla, 6 in. across.....1  
Sandwich thins/deli flats.....1

#### Cereals/Grains/Pasta

Cold cereals (unsweetened)..... $\frac{3}{4}$  cup  
Bran cereals..... $\frac{1}{3}$  cup  
Bran cereals (flaked)..... $\frac{1}{2}$  cup  
Granola.....2 Tbsp  
Shredded wheat..... $\frac{1}{2}$  cup  
Bulgur (cooked)..... $\frac{1}{2}$  cup  
Hot cereals (unsweetened)..... $\frac{1}{2}$  cup  
Grits (cooked)..... $\frac{1}{2}$  cup  
Pasta (cooked)..... $\frac{1}{2}$  cup  
Rice (cooked)..... $\frac{1}{3}$  cup  
Quinoa (cooked)..... $\frac{1}{3}$  cup

#### Starchy Vegetables

Corn..... $\frac{1}{2}$  cup  
Corn on the cob, 6 in. long.....1  
Green peas..... $\frac{1}{2}$  cup  
Plantain..... $\frac{1}{2}$  cup  
Potato, baked (medium)..... $\frac{1}{2}$   
Potato, mashed..... $\frac{1}{2}$  cup  
Taro, boiled/mashed..... $\frac{1}{2}$  cup  
Winter squash (acorn, butternut)..... $\frac{1}{2}$  cup  
Yam/sweet potato..... $\frac{1}{3}$  cup

#### Crackers and 'Snack Foods'

Animal crackers.....8  
Graham crackers (2.5 in. square).....3  
Matzo..... $\frac{3}{4}$  oz  
Melba toast.....5  
Oyster crackers.....24  
Popcorn (popped, 94% fat free).....3 cups  
Pretzels..... $\frac{3}{4}$  oz  
Rye crisp (2 in. x 3 in.).....4  
Saltine crackers.....6  
Wheat Thins.....8  
Triscuits.....4

Limit to 3 servings of  
starch every day!

## Possible Problems and Solutions

We do not expect problems to occur, but if they do, we want you to know how to solve them. It is helpful to keep a record of anything unusual that occurs and what you did before and after it happened to identify trends and help you talk to your care providers more specifically.

### **Dizziness, Headaches, Lightheadedness, Dark Urine (Signs of Dehydration)**

- ✓ Drink fluids with electrolytes (like Propel Zero or Powerade Zero).
- ✓ Add salt to your foods.
- ✓ Drink salty bouillon or soup broth.
- ✓ Call the Physician's Assistant phone line at 617-732-8882 if you are unable to catch up on your fluids.

### **Constipation**

#### *Short-term Solutions*

- ✓ Increase your fluids – aim for 64 ounces daily.
- ✓ Try a laxative, such as Milk of Magnesia or Miralax, and take a stool softener up to 3 times daily.
- ✓ Try psyllium, a natural soluble fiber.

#### *Long-term Solutions*

- ✓ Increase your fluids – aim for 64 ounces daily.
- ✓ Increase your fiber intake.
  - Eat more fruits, vegetables, and whole grains if your diet stage permits.
  - If you are unable to add more fiber through your diet, try a fiber supplement, such as Benefiber or Metamucil.
  - Slow and steady is the key to adding fiber to your diet. Start with a small amount, such as one serving of fiber supplement or one extra serving of food with fiber. Stick with that amount for 1-2 weeks before increasing as needed.
- ✓ Stay physically active.
- ✓ Continue taking a stool softener as needed.

### **Diarrhea**

- ✓ Limit or avoid foods with lactose. Lactose intolerance can occur after surgery. Please see page 8 for more details.
- ✓ Eat slowly and chew thoroughly.
- ✓ Do not drink fluids with meals.
- ✓ Avoid high sugar, high fat, and spicy foods.
- ✓ Limit the amount of sugar-free products (like sugar-free candies). These products may contain sugar alcohols (artificial sweeteners that end with –ol such as malitol, sorbitol, xylitol, etc.) that can cause diarrhea.
- ✓ Limit caffeinated beverages.
- ✓ Try a probiotic supplement – ask your dietitian for suggestions.
- ✓ Try psyllium, a natural soluble fiber.

### Nausea and/or Vomiting

- ✓ Tune into your eating behaviors. Take small bites, chew thoroughly and pause after each bite.
- ✓ Stop eating or drinking at the first sign of fullness, which may feel like pressure in your upper chest.
- ✓ Stay hydrated. Drink at least 48-64 ounces of fluids.
- ✓ Keep foods tender and moist.
- ✓ Determine whether you might have lactose intolerance (page 8).
- ✓ Avoid eating and drinking at the same time.
- ✓ If these suggestions do not work, or you vomit bright red or dark brown liquid, please call the PA line or your surgeon's office.

### Bloating/Gas/Cramping

- ✓ Limit or avoid foods with lactose. Lactose intolerance can occur after surgery. Please see page 8 for more details.
- ✓ Limit or avoid sugar alcohols (artificial sweeteners that end with -ol such as malitol, sorbitol, xylitol, etc.).
- ✓ Avoid carbonated beverages.
- ✓ If drinking through a straw causes these problems, avoid using one.

### Heartburn

- ✓ Every person has different food and beverage triggers of heartburn. Make a list of the ones that trigger heartburn for you and avoid them.
- ✓ Take your prescribed heartburn medication.
- ✓ Tune into your eating behaviors. Take small bites, chew thoroughly and pause after each bite.
- ✓ Avoid lying down for 3-4 hours after eating.

### Hair Loss

- ✓ Hair loss after bariatric surgery is called 'telogen effluvium' and generally occurs around 3-6 months. This happens because some of your hair follicles are in resting stage (telogen phase) during the time of surgery, and the stress of significant weight loss can cause that hair to stay in the resting stage.
- ✓ There's generally not much you can do about hair loss at 3-6 months post-op except minimize washing and brushing to prevent extra fallout.
- ✓ If hair loss continues after month 6, speak to your dietitian. It could be related to iron, copper, zinc, or B vitamin deficiencies or not eating enough protein.
- ✓ You can also try Nioxin shampoo.

### Dental Health

- ✓ Because you won't be eating and drinking together after surgery, you may be at a higher risk for dental carries. Also, acid reflux may damage your teeth, so consider the following:
- ✓ Swish your mouth out with water/mouth wash (don't swallow!) and spit after eating to remove food particles.
- ✓ Floss regularly.
- ✓ Consider brushing 3 times daily.
- ✓ Talk to your dentist about your bariatric surgery, especially if you have acid reflux.
- ✓ Consider adding a 3<sup>rd</sup> cleaning; instead of every 6 months, schedule a cleaning for every 4 months.

## Frequently Asked Questions for Behavioral Considerations

### Working with the Bariatric Psychologists

Your experience after surgery will most likely be very positive. There are many behavioral and lifestyle changes needed after surgery. Our team will help you make changes and manage challenges both before and after surgery. We are also happy to help provide referrals for additional behavioral support as necessary.

Common challenges after surgery...	Behavioral treatment to help...
<ul style="list-style-type: none"> <li>• body image disturbance</li> <li>• “mourning” the loss of food</li> <li>• compulsive behaviors (e.g. gambling, excessive shopping, promiscuous sex)</li> <li>• difficulty noticing changes</li> </ul>	<ul style="list-style-type: none"> <li>• cognitive behavioral therapy (CBT)</li> <li>• communication skills</li> <li>• social support</li> <li>• relaxation techniques</li> <li>• coping skills training</li> </ul>

### Q. How can I expect to feel in the first month after surgery?

A. Patients often find that the first month after surgery can be the most challenging time. It is not unusual to experience “buyer’s remorse”, or the sense of “why did I do this to myself?”. This may be natural when dealing with post-surgical pain, impaired sleep, a liquid diet, limited calories, and fatigue. Very quickly that tends to shift, and mood and anxiety symptoms tend to improve. Please keep an eye on your symptoms, you may notice your mood returning to normal after you have settled into your new lifestyle.

### Q. Will I need to change my psychotropic medications after surgery?

A. Our team will review all of your medications and suggest changes, if needed. Extended release (ER) or sustained release (SR) medications are often not absorbed as well after surgery. You may need to speak with your physician about making a change to your prescription. **Please do not make any changes to your medication regimen unless approved by the prescribing physician (PCP or psychiatrist).**

### Q. Will my sleep disorder improve after surgery?

A. Many patients’ sleep improves after surgery. However, while patients with sleep apnea sense that they “snore less” or are sleeping better, they often still have milder symptoms of sleep apnea. Therefore, they may still require ongoing treatment. **Please continue use of CPAP, BiPAP, or AutoPAP until otherwise advised by your physician.**

### Q. What can I expect to feel in social situations?

A. Patients report many positive and negative changes to how they interact with others after surgery. Changes could include:

- increased positive attention
- feeling more comfortable in social situations
- decreased stigma/rejection
- improvements in body image
- improvements in sexual functioning
- disruptions of relationships
- insensitivity or jealousy from others
- increased irritability
- difficulty with increased sexual attention/navigating dating situations

It is worth noting that there is a higher divorce rate in patients who have had weight loss surgery. This could be associated with: younger age, prior history of divorce, shorter time in marriage, and/or history of substance abuse. A key factor in break ups of relationships appears to be one which was already unhealthy.

You are strongly encouraged to discuss with your partner the impact of weight loss on your relationship. While we will continue to monitor your mood and social status post-surgery, other psychological support may also be recommended. This could include: marital or family therapy or communication skills training.

**Q. How long should I avoid alcohol after surgery?**

A. It is recommended to avoid alcohol during the first year after surgery. This will allow for complete healing of your procedure and prevent dangerous leaks from the surgical sites. After that time, it is still important to be careful with how much you drink as your body will not metabolize alcohol in the same way.

As a result of the surgery, alcohol gets into the bloodstream at a higher rate than you have felt before, has a more immediate effect, and takes longer to clear your system. These factors lead to a situation in which one glass of wine, a beer, or a shot of liquor could lead you to be above the legal limit to drive within 15 minutes. An increase in rates of alcohol use disorder have also been noted and presents numerous risks. If you (or a loved one or friend) feels that you are drinking more or more often, please reach out to us for help.

**Q. How can I expect to feel years after surgery?**

A. It has been found that there is an increased risk of suicidal thoughts two to three years after surgery. There may be many reasons for that, partly linked to weight loss or regain issues, but also issues linked to alcohol use issues for some patients. Our bariatric psychologists will help you minimize any of these risks.