



FRESNO HEART &  
SURGICAL HOSPITAL

A CAMPUS OF COMMUNITY REGIONAL MEDICAL CENTER



# NUTRITION GUIDE

## For Metabolic and Bariatric Surgery

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July 2024

Fresno Bariatric Program

Fresno Heart and Surgical Hospital

 @fresnobariatric

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# INTRODUCTION TO BARIATRIC SURGERY

Congratulations on your decision to pursue a healthier lifestyle through metabolic and bariatric surgery. We are committed to helping you through this life-changing, challenging, but ultimately rewarding experience. Our goal is to make sure you are ready and thoroughly prepared for surgery.

This guide will help prepare you for what lies ahead. Keep in mind, these are guidelines; it is not a substitute for the individualized treatment you will receive as an ALSA patient. You have a team of physicians, nurses, psychologists and dietitians specially trained and dedicated to helping you obtain the best possible outcomes.

You already know that traditional diet and exercise programs can help with weight loss, but keeping weight off is more important than these short-term victories.

Many of you are already eating mindfully, exercising and optimizing a healthy lifestyle, and yet, your weight does not budge. That is the concept of “set-point”- a predetermined weight and body fat content beyond your control. Surgery can reset your set-point, whereas traditional diet and exercise programs do not. It’s time to try something new!

Bariatric surgery is effective, not because it forces you to eat less, but because it allows you to lose weight without your body opposing the weight loss. However, keep in mind that if your lifestyle, food choices, eating habits and exercise regimen do not change, you may wind up where you started.

Metabolic and Bariatric surgery is an amazing tool, but to get the best results, it is important you know how to use it properly. It is essential that you follow the nutritional plans that are outlined in this handout.

**Your team: doctor, nurse, psychologist, and dietitian are available to answer questions and provide any other support you may need.**



# PREPARING FOR BARIATRIC SURGERY

Before surgery, there are many behaviors that can ensure you have a smooth transition to your post-operative life. One suggestion is to begin journaling what you are eating and drinking. Downsizing your meals is also a good place to start; try to be mindful of what and why you are eating. Taking smaller bites, eating slowly, and using internal cues instead of external ones will lead to more enjoyment and satisfaction with meals. Making small changes, one at a time, can help you to develop new habits. Taking a look at your sleep pattern is also helpful, since sleep deprivation can lead to weight gain, increased stress and reduced ability to fight disease.

**It's important to remember it will be your food & exercise habits that will determine your level of success with weight loss and weight maintenance.** Use the following as a guide to get an early start on your new, healthier life.



## BEHAVIORAL GOALS

- Create a structured meal pattern; avoid skipping meals
- Avoid distractions while eating (phone, computers, TV)
- Develop an awareness of physical hunger and fullness
- Use a small (7-9") plate
- Avoid drinking with meals
- Self-monitor eating and physical activity

## NUTRITIONAL GOALS

- Decrease fast food meals
- Avoid calorie-containing beverages
- Decrease processed foods and foods with added sugar
- Build meals around lean proteins, whole fruits and vegetables, and whole grains. **Use the MyPlate method:** 1/2 your plate as fruits/vegetables, 1/4 as starch, and 1/4 protein
- Stay hydrated; aim for 48-64oz of low calorie beverages each day



# HOW NORMAL DIGESTION WORKS

Digestion begins in the mouth as food is chewed, breaking it down into simpler nutrients that can be used by the cells. Saliva contains an enzyme (amylase) that when mixed with the food begins the breakdown of carbohydrates. The food is then swallowed and travels into the stomach. Typically, the stomach stores food for up to four hours and initiates digestion by breaking down protein and killing bacteria with strong acidic gastric juice. From here, it moves into the first part of the small intestine. The duodenum functions to break down food into simple nutrients and absorb a variety of nutrients, including iron and calcium. The next stop is the jejunum, which functions to absorb our nutrients. Digestion continues in the ileum and finishes in the large intestine with a bowel movement.

Digestion is also not as simple as calories in/calories out. Your digestive tract is a complex system of hormones, bile acids and involves the interaction of food with your gut micro bacteria. What researchers are now proving is something we have known for decades: obesity is not your fault. It is not due to lack of self-control, lack of exercise, gluttony, laziness or mental illness. It is a disease, and like many diseases, poorly understood, but treatable.

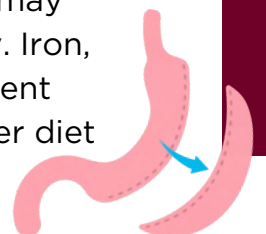


## HOW WILL DIGESTION WORK AFTER METABOLIC AND BARIATRIC SURGERY?

Today's metabolic and bariatric surgeries are performed using small incisions (laparoscopic), which allow patients to experience fewer complications, shorter hospital stays, and faster recovery.

The Sleeve Gastrectomy (SG) and Gastric Bypass (RYGB) account for 90% of the operations performed worldwide. Other surgeries include single-anastomosis duodeno-ileostomy bypass (SADI-S) and biliopancreatic diversion with duodenal switch (BPD/DS). In selected patients, revision surgery may be effective in achieving additional weight loss and a reduction in co-morbid conditions. Each surgery has its own advantages and drawbacks. Your surgeon will review your health history and work with you to determine which surgery is best for you.

In general, these surgeries make your stomach smaller, and in some cases bypass a portion of your intestine. This results in less food intake and changes how your body absorbs food. Surgery also causes hormonal changes that lead to decreased hunger and increased fullness. With all surgeries, it is important to chew food thoroughly and eat a healthy diet. Taking vitamin and mineral supplements lifelong is important to prevent nutrient deficiencies that may result from smaller portions and/or the malabsorptive effect of surgery. Iron, Calcium, Vitamin D, Vitamin B12 and Folate are the most common nutrient deficiencies after weight loss. Your dietitian will guide you on the proper diet and supplement routine to be successful after surgery.

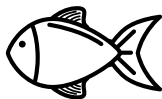




## NUTRITION BASICS

Food serves as an important vehicle for taking nutrients into the body. Food is broken down into specific nutrients that the body requires. These nutrients, known as macronutrients, include carbohydrates (simple and complex sugars), fats (fatty acids) and proteins (amino acids). Vitamins and minerals are examples of micronutrients.

### Protein



Helps build, maintain and repair body tissue. Research shows that an intake of at least **60 grams of protein per day** is associated with better preservation of lean body mass for gastric bypass and sleeve gastrectomy patients.

### Carbohydrates



These provide energy. Nutrient-dense carbs, such as whole grains, fruits & vegetables, legumes and low fat dairy are recommended. Foods high in **ADDED sugars** are discouraged due to lack of nutrients and intolerance.

### Fats



Provides energy and fat-soluble vitamins (Vitamin A, D, E and K). Provides essential fatty acids (Linoleic and Linolenic).

### Fluids



Supports all body functions. It carries nutrients through the body and removes waste. A lack of fluid can result in dehydration.



**Reminder: Protein and water will be the most important nutrients you consume after your surgery. Protein is necessary to help heal and preserve muscle tissue while you're losing weight. At mealtimes, focus on eating protein foods first to meet your daily goal. We suggest an intake of 60gm/day for women and 80gm/day for men. Most patients will not meet this goal immediately after surgery, but rather are working toward this goal. Use the table on the next page to find your favorite protein foods.**



# PROTEIN CONTENT OF FOODS



Meats, Poultry, and Fish	Portion size	~ Grams of protein
Beef/Turkey Jerky	1 oz dried	10-15
Beef, chicken, turkey, pork, lamb	1 oz cooked	7
Fish, Tuna fish, shellfish	1 oz cooked	7
Soy and vegetables	Portion size	~ Grams of protein
Soy Milk	8oz	7
Tofu	1 oz	3
Edamame, fresh or frozen	1 oz	8
Legumes and Nuts	Portion size	~ Grams of protein
Lentils, kidney, black, navy, cannellini beans	1/2 cup	8-9
Refried beans	1/2 cup	6
Peanut butter	2 tbsp	7
Nuts / seeds	1 oz (1/4 cup)	4-6
Dairy products	Portion size	~ Grams of protein
Milk, skim or 1%	8 oz	8
Yogurt, fat free, light	6 oz	5
Greek yogurt, plain, non fat	5 oz	12-18
Cottage cheese, Ricotta (skim)	1/2 cup	14
Sugar free pudding made with milk	1/2 cup	4
Grains, vegetables, fruit	Portion size	~ Grams of protein
Breads	1 oz slice	3
Cereals, rice, pasta	1/2-1/3 cup	3
Quinoa	1/3 cup	6
Vegetables (variety fresh, frozen, canned)	1/2 cup, 1 cup leafy greens	2
Fruit (variety fresh, frozen, canned)	1 small, 1/2 cup	0



# UNDERSTANDING INGREDIENT LISTS

## What do I look for?

By using the information on food labels, you will be able to make the best possible choice with regard to your new dietary goals. We strongly encourage you to make label-reading a part of your new shopping habits. There are (2) sources of information available on labels- ingredient lists and the nutrition fact panel.

Ingredient declaration is required on all foods that have more than one ingredient. The ingredients are listed in order of predominance by weight. The ingredient that weighs the most is listed first, and the ingredient that weighs the least is listed last. The common or usual name for ingredients is listed unless there is a regulation that provides for a different term.

Protein may be listed on labels as caseinate, whey, soy, pureed meat or individual amino acids. Fat may be listed as partially-hydrogenated oil, soy, canola, corn, sunflower, safflower, medium chain triglyceride oils, cream, or butter.

Carbohydrates have many different names. Be sure to read ingredient lists to look for foods with high sugar content. The scientific names for sugars often end in "ose." The following list provides different names of sugars. If these ingredients are listed within the first five, it's probably a significant source of sugar and should be avoided.

## Finding Hidden Sugars

Look on the ingredient list for all forms of sugar:

- Sucrose
- Dextrose
- Maltose
- Fructose
- Lactose
- High Fructose
- Corn Syrup
- Dextrin
- Agave Nectar
- Crystallized Cane Sugar or Juice
- Molasses
- Turbinado
- Corn Sweetener
- Malt
- Honey
- Fruit Juice Concentrate
- Evaporated Cane Sugar

## Sugar Substitutes

Sugar substitutes can be tolerated by most patients after surgery and contain little to no calories. However, using high amounts of these sweeteners is not recommended long term because repeated exposure may create a preference for sweetness. Here are some examples:

- Splenda® (Sucralose)
- Equal® (Aspartame)
- Sweet-N-Low® (Saccharin)
- Stevia® (herbal supplement)

## Sugar Alcohols

These are a type of reduced calorie sweetener (1/2 the calories of regular sugar). In some people, they can have a laxative effect, or other gastric symptoms, so you may want to check the ingredient list. Examples: Sorbitol, Mannitol, Erythritol, or Xylitol



# HOW DO YOU READ A FOOD LABEL?

## 1. Serving Size

This is based on the amount of food that people typically eat.

The nutrition information is based on one serving size only. Remember, you will be eating much smaller portions so the nutrition information will need to be adjusted.

1. Serving Information

2. Calories

3. Nutrients

Nutrition Facts	
4 servings per container	
<b>Serving size</b>	<b>1 cup (227g)</b>
Amount per serving	
<b>Calories</b>	<b>280</b>
<b>% Daily Value*</b>	
<b>Total Fat</b> 9g	<b>12%</b>
Saturated Fat 4.5g	<b>23%</b>
Trans Fat 0g	
<b>Cholesterol</b> 35mg	<b>12%</b>
<b>Sodium</b> 850mg	<b>37%</b>
<b>Total Carbohydrate</b> 34g	<b>12%</b>
Dietary Fiber 4g	<b>14%</b>
Total Sugars 6g	
Includes 0g Added Sugars	<b>0%</b>
<b>Protein</b> 15g	
Vitamin D 0mcg	0%
Calcium 320mg	25%
Iron 1.6mg	8%
Potassium 510mg	10%

4. Quick Guide to percent Daily Value (%DV)

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

## 2. Calories

Calories are a measure of energy that you get from food. The number of servings you eat determines the amount of calories you actually eat.

## 3. Nutrients

- Look for items high in protein. **A good source of protein is 5 - 10 grams per serving.**
- The American Heart Association recommends a limited amount of added sugars: 25gm per day for women and 36gm for men
- **Keep total sugars to less than 20gm/serving**
- **A low fat food provides about 3gm of fat/100 calories**

## 4. Daily Value Percentage

- % Daily Values are average levels of nutrients for a person eating 2,000 calories per day. Daily values are for the entire day, not just a meal.
- Remember, you will need less than 2,000 calories per day after surgery.
- **5% or less is low** - try to aim low for saturated fats, trans fats, cholesterol and sodium.
- **20% is high** - try to aim high for vitamins, minerals and fiber.

# DIETARY GUIDELINES AFTER SURGERY

It is important to follow the recommended diet progression at ALSA Medical Group. By following the diet stages listed here, you will decrease chances of any discomfort, complications such as blockages or leaks, and allow your body to heal from surgery. The diet is designed to help you develop healthy habits and achieve weight loss success.

## Diet Principles after Surgery

- Drink 48-64 fluid ounces (6-8 cups) of liquid per day. Liquids should be sugar free and non-carbonated.
- **Avoid eating and drinking at the same time and resume 30 minutes after a meal.** Drinking while eating can lead to discomfort and dumping syndrome.
- Chew your food well and eat slowly (a meal should take 20-30 minutes to finish).
- Follow the suggested portions size guidelines and stop eating at the first sign of fullness.
- Do not skip meals. This can lead to overeating at your next meal. Eat 3 small meals a day, and possibly 1-2 protein snacks. Do not graze.
- Take your vitamin & mineral supplements daily. Attend all follow up appointments, and review lab work annually to identify deficiencies.
- Use of straws and chewing gum may introduce air into your stomach causing bloating and GI discomfort and may need to be avoided for the first 2-3 months after surgery.
- Avoid alcohol and carbonated beverages. Bariatric patients may have an increased sensitivity, and alcohol is a source of empty calories. It is also a dehydrating beverage.
- Concentrate your diet on protein, vegetables, and healthy carbohydrates. Eat your protein foods first.
- Avoid foods high in sugar (ice cream, milkshakes, drinks with added sugar) which can lead to dumping syndrome and added calories.
- As your diet progresses, choose whole foods over protein bars/chips/supplements.
- Practice mindful eating - avoid talking and watching screens while eating.



# CLEAR LIQUID DIET

3 DAYS POST-OPERATIVE

\*REVISION SURGERY: 1 WEEK POST-OP



**Your goal will be to consume 48-64 fluid ounces each day.**

At the hospital, you will be started on a Clear Liquids diet. At first, you will tolerate just a few sips at a time. Drink the amount that feels comfortable for you, and experiment with various flavors and temperatures to see what works best.

**You may use ANY of the following to meet your fluid goal.**

Food Group	Fluids Recommended
<p>Clear Fluids</p> <p><b>*AVOID CAFFEINE, CARBONATION, &amp; ALCOHOL</b></p>	<p>Water</p> <p>Sugar-free flavored water (e.g. Crystal Light® or Mio®)</p> <p>Propel Zero®/Vitamin Water Zero®/Ultima Replenisher )</p> <p>Sugar substitute free water (Hint, Bai, Lemon Perfect, Nuun, Core Hydration)</p> <p>Infused/strained water (flavored with lemon, cucumber, etc.)</p> <p>Broth (vegetable, beef, chicken)</p> <p>Strained miso soup</p> <p>Gatorade Zero®, Powerade Zero®</p> <p>Diet/light apple, grape, cranberry juice</p> <p>Decaffeinated coffee/tea (no creamer, sugar substitute OK)</p> <p>Sugar-free popsicles and gelatin</p>
<p>Protein Fluids</p> <p><b>2 servings/day</b></p>	<p>Clear Protein Drinks (such as Premier Clear®, BiPro®, Protein2o®, Isopure®, or Gatorade Protein Water®)</p> <p>Bone broth</p>
<p>Carbohydrate Fluids</p> <p><b>2-3 servings/day</b></p> <p><b>*3 svg/day for history of diabetes</b></p>	<p>Diluted Gatorade® (half Gatorade®/half water)</p> <p>Low sugar Gatorade® (G2®)</p> <p>Diluted Powerade® (half Powerade® /half water)</p> <p>Diluted juice: apple, grape, or cranberry (half juice/half water)</p> <p>Unflavored coconut water</p>

Clear Liquid Sample Menu	
7 am	8 oz water
9 am	16 oz Protein 2o
11 am	8 oz diluted juice (half juice, half water)
1 pm	8 oz Bone broth
3pm	8 oz diluted juice (half juice, half water)
5 pm	8 oz water (*or carbohydrate choice if you have history of diabetes)
7pm	8 oz water



**Reminder:**  
**Start 100mg of B1 this week**



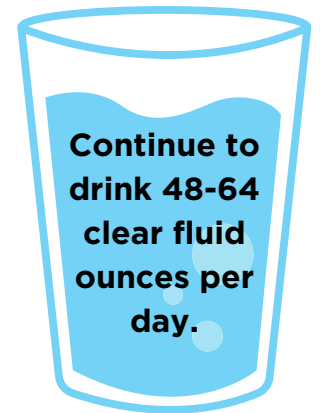
# FULL LIQUID DIET

BEGIN ON THE 4TH POST-OP DAY

\*REVISIONS: BEGIN ON 7TH DAY POST-OP



If you are tolerating Clear Liquids, you may advance to the Full Liquid diet. This diet provides liquids/foods that are easy to consume and digest. Most patients can comfortably tolerate 3-4oz (1/3-1/2 cup) portions per meal, with 3-4 meals per day at this stage. Continue to drink 48-64oz of clear fluids. You may find it more comfortable to begin separating your “meals” and fluids: Stop drinking at the start of your meal, and resume your fluids 30 minutes following meals.



**IMPORTANT: Full Liquids and protein shakes should NOT be counted toward your goal to drink 48-64oz/day.**

Food Group	Foods Recommended
Protein	Plain or flavored light yogurt (no fruit chunks) Protein shakes (<200cal, 15g+pro, <7g sugar) Lactose free milk (low fat, skim, or soy milk) Blended lentil or pea soup Smoothie made w/ canned fruit, banana, protein powder, milk, yogurt Low fat/non fat milk (if not tolerated, try lactose free milk. Example: plain soy, almond, oat, or Fairlife brand)
Vegetables/Fruit	Blended tomato, butternut squash, or vegetable soup Unsweetened applesauce Vegetable juice (no pulp)
Starch/other	Sugar free pudding Cream of wheat, cream of rice, or grits (thinned) Low sugar instant oatmeal (thinned)

Full Liquid Sample Menu		
Breakfast	7am	3-4oz plain or light yogurt and 1-2 tbsp. applesauce. Resume clear liquids 30 minutes after.
Lunch	12pm	1 liquid protein shake. Resume clear liquids 30 minutes after.
Dinner	5pm	3-4oz blended soup (lentil or pea). Resume clear liquids 30 minutes after.
Snack	7pm	3-4oz sugar-free pudding made with liquid protein shake



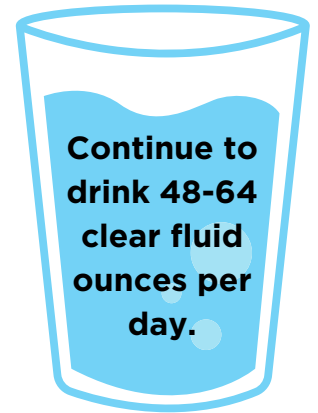
**Reminder: Start your multivitamin with iron and B12 this week**

# SEMI-SOLID DIET

## BEGIN ON WEEK 3



This diet stage allows your digestive system to get used to semi-solid foods. After the surgery, your stomach may be slightly swollen. If your food is not soft, it may cause discomfort and/or a blockage that can cause you to vomit. Most patients can comfortably tolerate 2-3oz (1/4-1/3 cup) portions at this time, due to the increased density of the food.



**Bariatric Approved Seasonings & condiments:** You may start to use any mild seasonings such as salt, pepper, Mrs. Dash, basil, oregano, cumin, etc. Note: Avoid spicy seasonings for the first 3 months. You may flavor your food with mustard, LF mayonnaise, lemon juice, mild salsa, pickle relish, soy sauce, or low sugar ketchup.

Food Group	New Foods Recommended
Protein	Low fat refried beans Mashed hard boiled egg with light mayo, mustard or avocado Soft scrambled eggs or poached Low fat cottage cheese or ricotta cheese Tofu (soft or silken) Smooth nut butter (1-2 Tbsp.)
Vegetables/Fruit	Pureed soft fruit (no skin) Pureed vegetables or riced cauliflower Banana
Starch/other	Hummus Avocado (1-2 tbsp) Mashed potatoes or yams

Semi-solid Sample Menu		
Breakfast	7am	2-3oz mashed hard boiled egg and 1 tbsp. light mayo
Lunch	12pm	2-3oz low fat cottage cheese and 1 tbsp. puree fruit
Dinner	5pm	2-3oz low fat refried beans and 1-2 tbsp. avocado and mild salsa
Snack	7pm	1/2 banana and 1 tbsp. smooth peanut butter



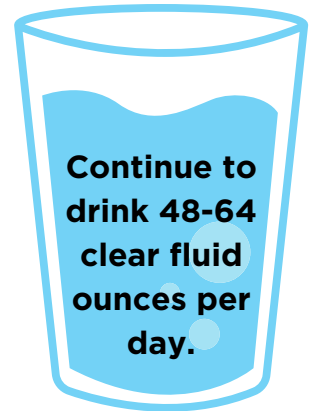
**Reminder: Start your calcium this week**

# SOFT TEXTURES DIET

## BEGIN ON WEEK 4



Food Group	New Recommended Foods
Protein	Soft, tender cooked chicken (no skin) Flaky fish: tuna, salmon, tilapia, etc. Deli turkey or ham Soft or ground cooked turkey (no skin) Water-packed canned chicken/tuna Low fat cheese
Vegetable/Fruit	Frozen fruit (thawed) Frozen vegetables (cooked) Water or juice-packed fruit cups Canned fruit (no syrup): peaches, mixed, oranges, pears, etc. Canned vegetables: green beans, mixed, mushrooms, carrots, etc.
Caffeine	Caffeinated coffee and tea can be reintroduced. Limit caffeine intake to 300-400mg per day. Avoid high calorie creamers and added sugar.



**Reminder: Chew these foods well, take small bites, and eat slowly.**

Soft Texture Sample Menu		
Breakfast	7am	2oz soft scrambled egg and 1oz of canned fruit
Snack	10am	1oz string cheese
Lunch	12pm	2oz tuna salad mixed with 1 tbsp. light mayo and canned mixed vegetables
Dinner	5pm	2-3oz shredded chicken with low fat gravy and 1oz steamed frozen green beans
Snack	7pm	2oz protein pudding (sugar free pudding made with liquid protein shake)

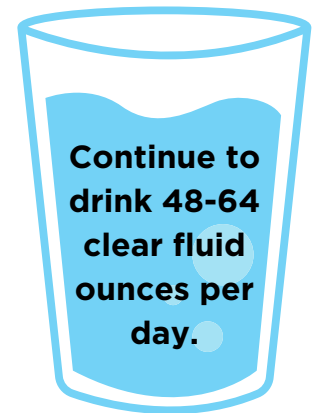


# SOLID TEXTURES DIET

## BEGIN ON WEEK 5



Food Group	New Recommended Foods
Protein	<p>Low fat ground beef</p> <p>Deli roast beef</p> <p>Plant based burgers (at least 10g of protein)</p> <p>Whole beans (black, pinto, chickpea, navy, etc.)</p>
Vegetable/Fruit	<p>Soft cooked fresh vegetables (carrots, squash, spinach, broccoli, cauliflower, etc.)</p> <p>Fresh fruit, NO PEELS (peeled apple, peach, pears, nectarine or melon, strawberries)</p> <p>Lettuce (romaine, baby spinach, spring blend) with a vinaigrette dressing</p> <p>*Limit starchy vegetables such as potatoes, peas, and corn. AVOID all other raw vegetables at this time.</p>



**Reminder: Chew these foods well, take small bites, and eat slowly.**

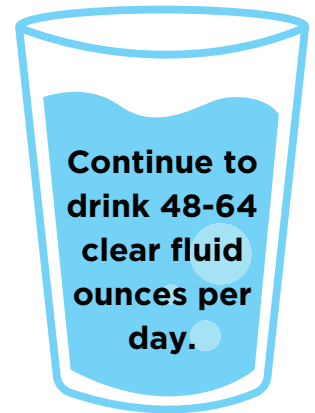
Solid Textures Sample Menu		
Breakfast	7am	2oz of scrambled egg cooked with squash and peppers
Snack	10am	1oz deli roast beef rolled with 1 slice of low fat cheese
Lunch	12pm	Lettuce wrapped 2oz of tuna salad and a small peeled peach
Dinner	5pm	1/3 cup of mild chili made with low fat ground beef or turkey, pinto beans, canned tomato, mixed vegetables, and seasoning

# REGULAR DIET

## BEGIN ON WEEK 6 AND BEYOND



Food Group	New Recommended Foods 6 weeks post surgery and beyond
Protein	Crab, shrimp, lobster Lean pork and lean steak Nuts & seeds (almonds, peanuts, cashews, chia seeds, pumpkin seeds, etc.) *chew well! Quinoa (1-2 tbsp. cooked)
Food Group	New Recommended Foods 8 weeks post surgery and beyond
Vegetable/ Fruit	Fresh fruit with peels, seeds, or membranes Raw vegetables (baby carrots, celery, cucumber, tomato, onion, etc.)
Food Group	New Recommended Foods 12 weeks (3 months) post surgery and beyond
Grains	Whole grains (100% whole wheat bread, brown rice, whole wheat pasta, barley, etc.) <ul style="list-style-type: none"> <li>You may include grains after 3 months, if you are meeting your protein goals and including fruits and vegetables in your diet.</li> <li>Limit to 2-3 servings per day (1 svg= 1 slice of bread, 6" tortilla, 1/3 cup of rice or pasta, or 4-6 crackers)</li> <li>These foods are a good source of iron and fiber, and provide energy to fuel your exercise.</li> </ul>
Spices	Spices such as cayenne pepper, tabasco and hot sauce as tolerated



Regular Diet Sample Menu		
Breakfast	7am	6oz Greek yogurt with berries and chopped almonds
Snack	10am	Carrot sticks and 2 tbsp. guacamole
Lunch	12pm	Turkey sandwich on whole wheat bread with light mayo, mustard, lettuce, and tomato.
Dinner	5pm	3oz of chicken breast fajitas with bell pepper and onion and 1oz of pinto beans.

# GENERAL PORTION GUIDELINES



Time frame from surgery	Suggested portion size for meals
First 3 months	1/3 cup or 2-3 ounces
Months 3-6	1/2 cup or 4 ounces
Months 6-9	3/4 cup or 6 ounces
Months 9-12	1 cup or 8 ounces
12 month and beyond	NO MORE THAN 1-1.5 cups with 1-2 small high protein snacks (depending on activity level)

## Healthy Meal Planning Tips

- Initially, it's recommended to measure your food to learn how to take care of your new stomach.
- Plan meals around protein and non-starchy vegetables (limit peas, corn, potatoes).
- Replace refined grains (white bread, white rice, etc.) with whole grains (brown rice, whole wheat breads and pastas, quinoa, barley, bulgur)
- Aim for 15-20gm protein/meal: use fish, chicken, beans, yogurt. Limit beef or pork to 1 svg/week. Limit protein bars/shakes to no more than 1 svg/day.
- Flavor your food boldly with herbs, spices, vinegar, garlic, onion, lemon, and lime.
- Choose healthy fats: nuts, avocado, olive oil.
- Avoid processed meats, sweets, sweetened beverages, fast food, and highly processed foods/snacks.
- Continue to drink 48-64 calorie-free fluid ounces each day.





# VITAMIN AND MINERAL SUPPLEMENTS



Vitamin	Recommended Brands	Dose	Tips
Multivitamin that meets 200% of Recommended Daily Allowance	Kid's chewable multivitamin (MVI) <u>with iron</u> .  Brands include: Target (Up and Up) or Walmart (Equate)	2 chewable tablets per day	Begin on full liquid stage. <b>NO Flintstones or gummies!</b> May choose a swallow form MVI with iron after 1-3 months.
<b>OR</b>			
Bariatric Multivitamin <b>MANDATORY</b> for SADI, DS, and distalization	Bariatric chewable multivitamin <u>with iron</u> .  Some options include: <a href="http://www.bariatricadvantage.com">www.bariatricadvantage.com</a> <a href="http://www.celebratevitamins.com">www.celebratevitamins.com</a> <a href="http://www.procarenow.com">www.procarenow.com</a>	1-4 tablets per day (see label instructions)	Begin on full liquid stage. May choose a swallow form after 1-3 months.
<b>AND</b>			
Thiamine (Vitamin B1)	Any dissolving, chewable, or swallow tablet as tolerated	100mg per day	Begin when discharged from hospital and continue for 30 days.
Vitamin B12	Any dissolving tablet, liquid or sublingual form.  <u>B12 is included in most bariatric vitamins.</u>	500-1,000 micrograms (mcg) per day	Begin on full liquid stage. May choose monthly B12 injection instead of oral.
Iron	<u>The iron in your MVI may be sufficient.</u> Make sure you are meeting recommended daily dose.	18-36mg/day for men or postmenopausal women  45-60mg/day for female with menstrual cycle	Begin on full liquid stage. <b>Take 2 hours apart from calcium.</b>
Calcium Citrate (take with or without food) <b>OR</b> Calcium Carbonate (take with food)	Start with liquid or chewable form.  Some options include: Solgar (liquid) Wellesse (liquid) Solaray (chewable) <a href="http://www.bariatricadvantage.com">www.bariatricadvantage.com</a> <a href="http://www.celebratevitamins.com">www.celebratevitamins.com</a>	500-600mg 2 times per day  *3 times per day for postmenopausal women	Begin on week 3 after surgery. May choose a swallow form after 1-3 months. <b>Take 2 hours apart from iron.</b>



**Reminder: It's important to take vitamin and mineral supplements for the rest of your life after bariatric surgery.**

# DINING OUT AT RESTAURANTS



**Eating out with family and friends is an important social experience and you should not be afraid of it. Use the following guidelines to help make dining out a relaxing and enjoyable experience.**

## Healthy Dining Tips

- Think about what you will eat before you go out. Planning ahead will make you more likely to select appropriate foods. Select “safe” foods you know you can tolerate. Sometimes it is hard to tell what is in an item on a menu by its name. Do not be afraid to ask. It is wise to stick with foods you know when dining out.
- Order a smaller portion if possible, such as a “lunch size” or half portion. Look for “light” menu options. You may have to give a simple explanation of your dietary needs. Our office can provide you with a card you can carry in your wallet stating you have had stomach surgery and cannot eat normal size meals. Most restaurants will honor this card.
- Ask to have dishes served without special sauces or dressings.
- Avoid fried foods. If it is fried, ask if it can be baked or steamed instead.
- Share a meal. Ask for a small plate and take small portions from your dining companion’s meal.
- Avoid alcohol as it contains a large amount of calories, and the surgery itself significantly lowers your tolerance.




**Reminder: Eat slowly and mindfully. Recognize when you are getting full and decide when to stop eating. You can pack up the leftovers to eat later at home.**

# PHYSICAL ACTIVITY

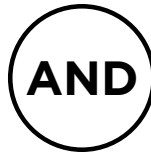



The health benefits of physical activity are numerous. They include weight management, blood glucose control, improved lipid profile, decreased blood pressure, decreased anxiety and an elevated sense of well-being.

## How much activity do I need?

 **150 minutes of moderate intensity exercise per week**

Anything that gets your heart beating faster counts.



 **Muscle Strength Activity 2X per week**

Activity that makes your muscles work harder than usual.



## How do I get started?

### Step 1:

Getting started can often be the most difficult part of any exercise routine. Scheduling exercise into your day and making it a priority will increase the chance of being successful. Teaming up with a physical activity (PA) buddy (your dog counts!), joining an exercise class, combining PA with a social event (such as dancing, a fund-raising walk) are simple ways to get started. If you can't fit in a workout, take the stairs instead of the elevator, park further away, stand whenever you can, bicycle to run errands, or walk the dog. These small steps can add up to health benefits.

### Step 2:

Choose aerobic activities you enjoy. Walking is a great way to do moderate-intensity PA. Moderate level PA means working hard enough to raise your heart rate and cause you to breathe harder, yet still be able to carry on a conversation. Do other moderate- vigorous intensity exercise such as swimming, biking, or playing basketball with friends to get your daily PA. If you need a variety of activities to stay motivated, combine a few that appeal to you. PA can be accumulated through a variety of activities.

### Step 3:

Start with 10-15 minutes of aerobic exercise daily. Each week, add 5 minutes to your exercise routine until you reach 30 minutes of moderate-intensity for a minimum of 5 days per week. Or, you may do 25 minutes of vigorous-intensity exercise 3 days per week. The 30 minute recommendation is for the average healthy adult to maintain health and reduce the risk for chronic disease. To lose weight or maintain weight loss after bariatric surgery, 60-90 minutes of PA per day may be necessary.

### Step 4:

Add strength training into your routine. Do 8-10 strength -training exercises, 8-12 repetitions of each exercise twice per week. You can use dumbbells, resistance bands or your own body weight. If you are unsure of how to do the exercises correctly, ask for a referral to an exercise professional.

# AVOIDING POTENTIAL PROBLEMS

Potential Problem	Symptoms	Causes	Suggestions
Dehydration	<ul style="list-style-type: none"> <li>• Thirst</li> <li>• Dark urine</li> <li>• Headaches</li> <li>• Dizziness</li> </ul>	Dehydration is very common early in the postoperative period since you are not able to drink large amounts of liquid at one time. Dehydration can also occur from not intaking enough fluid due to nausea, vomiting, or diarrhea.	<ul style="list-style-type: none"> <li>• Sip on fluids throughout the day.</li> <li>• Only hold liquids while eating and resume drinking 30 minutes after.</li> <li>• Experiment with various flavors and temperatures to see what works best.</li> </ul>
Nausea/ Vomiting / Diarrhea	<ul style="list-style-type: none"> <li>• Upset stomach</li> <li>• Vomiting</li> <li>• Dry heaving</li> </ul>	Nausea and/or vomiting may be related to food intolerance. Foods with lactose (dairy), sugar alcohols (sorbitol, xylitol, mannitol), and foods high in fat and sugar are common triggers. It can also be related to eating behaviors, such as eating too fast or too much. Other causes of nausea may be due to intolerance to vitamin/mineral supplements.	<ul style="list-style-type: none"> <li>• If nausea occurs from eating a certain food, wait several days before trying it again.</li> <li>• Avoid foods high in sugar and fat.</li> <li>• Follow the suggested portion sizes to avoid overeating.</li> <li>• Talk with MD or RD regarding vitamin supplements.</li> </ul>
Dumping Syndrome  (EARLY- occurs 10-30 minutes after eating, may last 60 minutes)	<ul style="list-style-type: none"> <li>• Feeling faint</li> <li>• Rapid pulse</li> <li>• Sweating</li> <li>• Anxiety</li> <li>• Weakness</li> <li>• Cramping</li> <li>• Nausea</li> <li>• Diarrhea</li> </ul>	Early dumping usually occurs due to poor food choices. It is related to eating foods or beverages with refined (added) sugars, or high glycemic carbohydrates (white bread, pasta, rice). Dumping may also be triggered by eating high fat/fried foods.	<ul style="list-style-type: none"> <li>• Avoid foods that are high in sugars or fats.</li> <li>• Eat more slowly.</li> <li>• Wait to drink fluids at least 30 minutes after meals.</li> <li>• It is not necessary to avoid "natural sugars" such as those found in plain dairy products or whole fruit.</li> </ul>
Late Dumping Syndrome (Reactive Hypoglycemia)  (LATE- occurs 1-3 hours after eating)	<ul style="list-style-type: none"> <li>• Sweating</li> <li>• Shakiness</li> <li>• Loss of concentration</li> <li>• Hunger</li> <li>• Fainting</li> </ul>	Late dumping symptoms are related to an increased release of insulin after eating foods high in sugar, leading to hypoglycemia (low blood sugar).	<ul style="list-style-type: none"> <li>• Be evaluated by your surgeon and dietitian to prevent and treat low blood sugar.</li> <li>• In some cases, medication may be helpful when dietary changes alone do not prevent symptoms.</li> </ul>



# AVOIDING POTENTIAL PROBLEMS

Potential Problem	Symptoms	Causes	Suggestions
Thiamine (B1) Deficiency	<ul style="list-style-type: none"> <li>Vomiting, numbness, tingling extremities, walking impairment, confusion, hallucinations</li> </ul>	Thiamine deficiency can happen immediately post-op due to excessive nausea, vomiting, poor intake, and rapid weight loss. It can occur also due to a lack of vitamin/mineral supplements long term. A severe thiamine deficiency is considered a medical emergency and requires immediate treatment.	<ul style="list-style-type: none"> <li>Supplement Thiamine 100mg for 30 days post-op to prevent deficiency.</li> <li>Take a complete multivitamin long term after bariatric surgery.</li> </ul>
Hair Shedding	<ul style="list-style-type: none"> <li>Excess hair loss for the first 3-6 months postop</li> </ul>	The rapid weight loss patients experience in the early months often causes stress to the body and results in a disruption of the growth cycle of hair. Hair shedding in the first 3-6 months is normal, and unrelated to nutrition status. It typically resolves after 6 months, but can last up to 12 months.	<ul style="list-style-type: none"> <li>Eat adequate protein.</li> <li>Do not skip meals.</li> <li>Drink enough fluid.</li> <li>Get 7-9 hours of sleep.</li> <li>Take recommended vitamins.</li> </ul>
Constipation	<ul style="list-style-type: none"> <li>Difficulty having a bowel movement</li> </ul>	Constipation can occur from a lack of fiber from fruit and vegetables, not enough fluid intake, lack of movement or certain medications.	<ul style="list-style-type: none"> <li>Gradually increase fiber in diet. Work toward 15-20gm/day over a 2 week period after progressing to solid foods.</li> <li>Caffeine - ease restriction</li> <li>Drink 48-64oz per day</li> <li>Increase exercise</li> </ul>
Food Feels "Stuck"	<ul style="list-style-type: none"> <li>Pressure in chest area when eating</li> </ul>	After surgery, food enters the stomach through a smaller opening. Eating too much or too fast can cause the food to move through the esophagus slower, causing it to feel stuck.	<ul style="list-style-type: none"> <li>Chew foods very well.</li> <li>Avoid dry meats/poultry; avoid starches such as white breads, rice or pasta.</li> <li>Avoid "pushing" foods through with liquids; instead, get up and walk around.</li> </ul>
Weight Plateaus	<ul style="list-style-type: none"> <li>Weight loss stalls for 2 weeks or longer</li> </ul>	Most every patient will experience "weight stalls" during their weight loss journey. THIS IS NORMAL! You may not lose weight every week. There are many reasons why weight fluctuates such as medications, menstrual cycles, sodium intake and fluid intake are just a few examples.	<ul style="list-style-type: none"> <li>Weigh self no more than 1x a week or 2x a month.</li> <li>Weigh at the same time of day in same clothing.</li> <li>Monitor your progress in other ways - (clothing, photos, labs, etc.)</li> <li>Follow up with your surgeon and dietitian.</li> </ul>