

Nutrition Guidelines for Weight Loss Surgery

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Setting the Stage for Success

It is important to remember that bariatric surgeries are **only a tool** in achieving your weight loss goals. Key components to maximize weight loss and long-term success include healthy eating behaviors, exercise, and other healthy lifestyle changes. It is important that you **commit to a lifelong healthy diet and exercise regimen** to maintain your weight loss. Here are the behaviors you can start working on now to improve your overall success.

Behavior Modifications for Success

GOAL	STRATEGY
1. Plan structured meals and snacks. Weight loss surgery will restrict the amount of food you can eat at one time. Planning will help you consume enough nutrients, while also eating fewer calories to help lose weight.	• Eat on a regular schedule to ensure adequate nutrient intake. • <u>Avoid grazing and nibbling.</u> which may eventually lead to weight regain. • Keep a daily food and fluid journal to track your intake. This has been proven to help with weight loss and is strongly recommended by your bariatric team. • Consider using an app to track your food and fluid intake. MyFitnessPal and Loselt are two user-friendly options.
2. Practice Mindful Eating. This principle encourages you to eat slowly, focus on chewing your food well, and recognize what it feels like when your body has had enough. Mindful eating also encourages you to pay attention to your food choices and portion sizes.	• Take at least 20-30 minutes to consume each meal. Consider using a timer, small utensils or chopsticks to help slow down the pace if needed. • Chew each bite 15-20 times before swallowing. Food should be the consistency of applesauce.
3. Stay hydrated. Water is very important to eliminate waste and prevent dehydration. The risk of dehydration is high for several weeks after surgery due to limited stomach capacity.	• Aim for 64 ounces of total fluids per day. • Carry a water bottle at all times. • Sip frequently throughout the day. • Drink calorie-free beverages to avoid consuming too many calories. • Avoid carbonated beverages, straws, chewing gum, and gulping. All allow extra air to enter the new stomach, which can lead to intestinal gas and stomach pouch discomfort. • It is best to avoid caffeine for at least 30 days following surgery, as your stomach is more sensitive.

Behavior Modifications for Success

GOAL	STRATEGY
4. Separate fluids and food. Drinking and eating at the same time allows food to travel quickly through your new stomach, which can cause abdominal discomfort and nausea. It may also overfill your stomach, which may lead to vomiting.	• Wait at least <u>30 minutes after a meal</u> before drinking fluids. • It may be helpful to stop drinking 30 minutes <u>before</u> a meal as well. • Refer to “Postoperative Concerns” handout in packet on page 20.
5. Practice portion control. After weight loss surgery, you will find that the amount of food you can safely and comfortably consume in one sitting is much smaller than before surgery.	• Start measuring your food portions prior to surgery to become familiar with proper portion sizes. • Keep measuring cups or food scales handy. • Avoid grazing between meals. • Use smaller plates (7-9 inches). • Break the habit of eating everything on your plate. Practice mindful eating (Goal #2). • Post-surgery portion containers are available on Amazon.com.
6. Prioritize protein. Eating a variety of food is important for a balanced diet. However, protein-based foods are especially important after surgery. Protein is essential for growth, repair, and maintenance of muscle during weight loss.	• Aim to consume _____ g protein/day. Your dietitian will calculate your goals. • Consume your protein first at meals, then vegetables, fruits, and healthy starches last. • Not meeting your protein goal can possibly lead to protein malnutrition and slow weight loss.

Behavior Modifications for Success

GOAL	STRATEGY
7. Make meal planning a priority. Structure and planning are a huge part of your weight loss success. Think about what you will eat when away from home, such as during your workday.	• Pack your lunch the night before. • Keep shelf-stable items at your desk (tuna, protein shakes, etc.). • Consider bringing a small cooler or insulated bag for transporting food, if you will be away from home for an extended period. • When eating out, look up the menu ahead of time.
8. Modify your shopping habits. Restaurants and grocery stores are packed with high fat, high carb, high sugar and high salt foods. When you don't plan or prep your meals, it's easy to choose options that aren't as healthy.	• Make shopping lists and stick to them. • Avoid going to the store hungry. • Shop the perimeter of the store to avoid processed and packaged foods. • Buy only what is needed for you and your household. • Consider online grocery shopping or bariatric meal services such as Baribox.org.
9. Follow your vitamin / mineral regimen. After weight loss surgery, your body may not absorb enough of certain vitamins and minerals — specifically, iron, vitamin B12, calcium and vitamin D.	• To prevent nutrient deficiencies, be sure to take your vitamins and minerals daily. They will be part of your life <u>forever</u>. • After surgery, your diet alone will not meet your micronutrient needs.
10. Avoid alcohol. Avoiding alcohol will help with weight management both before and after surgery. Alcohol enters the blood three to four times more quickly after surgery, leading to a faster onset of intoxication.	• Consult your dietitian or therapist for help with social situations where alcohol may be served.

Behavior Modifications for Success

GOAL	STRATEGY
11. Stay active. An exercise program is critical to your long-term success with weight loss.	• Aim for a regular exercise routine including both cardio (such as walking, swimming) and strength training. • Start now to slowly increase your endurance and continue after surgery (only after clearance from your surgeon). • Consider hiring a personal trainer if you need direction and motivation, or a physical therapist if you have ongoing injuries.
12. Attend the John Muir Weight Loss Surgery Support Groups. Studies suggest that attending support group throughout your weight loss surgery journey improves overall weight loss and health maintenance. Having adequate social and emotional support during this process is crucial for your weight loss success and psychological well-being.	When: <u>Second Saturday</u> of every month 10:00am-11:30am via ZOOM. Note: Beginning in July 2023, we will alternate from virtual to in-person meetings. For the most up to date schedule and to sign up, please visit the John Muir Health Weight Loss Surgery Support Group Website: https://www.johnmuirhealth.com/event-list/weight-loss-surgery-support-group.html <i>Support groups are free of charge</i>
13. Attend Bariatric Nutrition Office Hours if you have questions. Brief one-on-one session with a Registered Dietitian at John Muir Health, up to 10 minutes in length. Opportunity to ask quick questions about diet plan and receive efficient, direct, evidenced-based advice.	When: 1 pm – 3 pm every other Wednesday afternoons** <i>**Dates and times are subject to change</i> For the most up-to-date schedule and to sign up for office hours, please visit the Bariatric Nutrition Website: https://www.johnmuirhealth.com/event-list/bariatric-nutrition-office-hours.html <i>Office Hours are free of charge</i>

For more information about our weight loss surgery services, please contact us by phone at 925-674-2416, or email bariatrics@johnmuirhealth.com; or please visit our Website at <https://www.johnmuirhealth.com/services/weight-loss-surgery.html>.

Pre-Surgery Behavior and Nutrition Goals Checklist

- ☐ Eliminate alcohol
- ☐ Decrease or eliminate caffeine
- ☐ Eliminate carbonated beverages
- ☐ Eliminate chewing gum
- ☐ Eliminate drinking straws
- ☐ Eliminate all calorie-containing beverages
- ☐ Drink 64oz calorie-free fluids per day (no caffeine, sugar, carbonation)
- ☐ Take small bites
- ☐ Chew each bite 15-20 times before swallowing
- ☐ Eat protein first at meals
- ☐ Follow a structured eating pattern with no skipped meals
- ☐ Practice mindful eating and avoid eating to cope with emotions or boredom
- ☐ Track your diet and physical activity (keep journal of food, fluid, exercise)
- ☐ Use the Hunger and Satiety Scale (page 7) before and after meals
- ☐ Plan meals and snacks. Eat in designated eating areas without distraction (no TV, phones, etc.)
- ☐ Use smaller plates (recommend 7- to 9-inch plates)
- ☐ Avoid drinking with meals
- ☐ Decrease or eliminate fast food meals
- ☐ Read food labels
- ☐ Monitor serving sizes and measure your foods
- ☐ Decrease processed foods/simple sugars
- ☐ Increase intake of lean meats, low-fat/non-fat dairy, legumes, nuts/seeds, whole fruits and vegetables, and whole grains
- ☐ Lose 5-10% of initial weight (or per surgeon recommendations)
- ☐ Attend support group

Hunger and Satiety Scale

Use this scale to get in better touch with your hunger and satiety cues. Start practicing before surgery. Aim to stay within the range of 3-7. When you reach a 3-4, eat your next meal or snack. When you reach a 6-7, stop eating.

1	• Starving: Feeling dizzy, faint, or ravenous
2	• Very hungry: Stomach growling loudly, may be feeling irritable
3	• Hungry: Stomach begins to growl
4	• Slightly Hungry: You could eat now, but you could also wait if needed
5	• Neutral: Neither hungry nor full
6	• Satisfied: You can feel food in your belly, but could eat more if you wanted to
7	• Comfortably Full: Just right
8	• Very Full: Starting to get very full, bloated
9	• Uncomfortably Full: Clothes may feel tight, if any more food is eaten, you may begin to feel sick
10	• Painfully Full: May be feeling nauseous

Weight Loss Surgery Post-Op Diet Stage Timeline

In the course of a few weeks, your diet will transition from liquid to solids. Initially a full liquid / puree diet is recommended for healing, but eventually you will be able to eat regular foods in moderation. Every patient will progress at a different rate, so do not compare yourself to others.

Phase	Timeframe
Stage 1 - Clear Liquids	1-2 days (while in hospital).
Stage 2 - Full Liquids	Start at discharge and continue until first post-surgery follow-up visit.
Stage 3 - Soft Foods	Start after you receive clearance from your surgeon at your 2-week follow-up appointment.
Stage 4 - Regular Foods	Start when tolerating Stage 3 diet for 1-2 months. Advance slowly.

Stage 1: Clear Liquids

Start: Day of surgery

Estimated Duration: 1-2 days

Goals: Sip at least 1 oz of fluid every 15 minutes. Fluids will be room temperature immediately post-op to help improve tolerance and avoid esophageal spasms (but this will not be necessary after discharge).

Instructions: **It is not necessary to finish everything on your tray.** Stop when you feel fullness. Your goal should be to consume 4-5 ounces of liquid per hour before discharge.

Stage 1: Sample Hospital Tray		
Breakfast	Lunch	Dinner
High protein fruit drink	High protein fruit drink	High protein fruit drink
½ cup high protein clear broth	½ cup high protein clear broth	½ cup high protein clear broth
½ cup sugar-free gelatin	½ cup sugar-free gelatin	½ cup sugar-free gelatin
½ cup herbal /decaf tea	½ cup herbal /decaf tea	½ cup herbal /decaf tea
Sugar substitute	Sugar substitute	Sugar substitute

Stage 2: Full Liquids

Allows your stomach to heal properly

Start: Start at discharge and remain on this diet stage until you receive clearance from your surgeon.

Estimated Duration: Approximately 2 weeks

Goals: Total 64 ounces of fluids per day. This may likely be 32 ounces from clear liquids and 32 ounces from full liquids to achieve protein goals stated on page 3. Consistencies should be smooth and fall off a spoon easily.

Full Liquid Consistencies include, but are not limited to:

- Low fat milk (1% or fat-free); consider lactose-free milk if intolerant
- Unsweetened Soy or Almond milk (add protein powder)
- Smooth, low-fat and low-sugar yogurt, Greek yogurt (Less than 15g sugar)
- Strained low-fat cream soups (low-fat tomato or cream of chicken)
- Sugar-free pudding or custard; high protein varieties available
- Cream of rice/wheat (add protein powder)
- Protein shakes (see list)

Recommendations for Protein Shakes:

- More than 15 grams of protein (> 15 grams protein)
- Less than 300 calories per serving (< 300 calories/serving)
- Less than 15 grams of sugar (< 15 grams of sugar)
- Less than 25 grams of carbohydrate (< 25 grams of carbohydrate)

Protein Shake Suggestions

CONTAIN MILK <i>NOT RECOMMENDED FOR MOST Roux-en-Y patients due to incidence of lactose intolerance</i>	DO NOT CONTAIN MILK
Fairlife protein shakes	Qwyn
Carnation Instant Breakfast -NO SUGAR ADDED Mix with 8 oz. 1% or skim milk	Isopure Plus Zero Carb
Atkins Advantage Shake	Bariatric Advantage
Protein Shakes by Premier Nutrition (Available at Costco)	Optisource
EAS Advant Edge High Protein	Boost Glucose Control or Glucerna
Designer Whey	Vega

Stage 2: Sample Meal Plan

8 AM	6 oz protein shake (<i>15 grams protein</i>)
9 AM	8 oz calorie-free fluid (water)
10 AM	6 oz protein shake (<i>15 grams protein</i>)
12 PM	4 oz smooth Greek yogurt (<i>10 grams protein</i>)
1 PM	4 oz calorie-free fluid (water)
3 PM	4 oz low fat cream soup made with lactose-free milk (<i>Approximately 6 grams protein</i>)
4 PM	8 oz calorie-free fluid (herbal tea)
5 PM	4 oz thinned cream of wheat with protein powder (<i>Approximately 12 grams protein</i>)
6 PM	4 oz calorie-free fluid (water)
7 PM	8 oz calorie-free fluid (herbal tea)
TOTAL	64 oz total fluids (clear and full liquids) 58 grams protein

Seasonings: You may use salt, flavorings, and mild herbs.

Sugar alcohols and substitutes: These may cause excessive gas, abdominal pain and diarrhea. When looking at a label, sugar alcohols typically end with “ol”. Examples: mannitol or sorbitol. Splenda (Sucralose) has also been reported to cause abdominal bloating.

Fluids:

Drink only calorie-free beverages between your meals. If you are having difficulty meeting your fluid needs with water, see other acceptable fluids listed below.

• Sugar-free popsicles (~ 3 oz.)	• Decaf coffee or tea, herbal teas
• Sugar-free Jell-O (~ 3 oz.)	• Propel
• Diet Snapple	• Smart Water
• Gatorade Zero	• Mio
• Vitamin Water Zero	• Powerade Zero
• Crystal Light	• “Infused” waters (water with fresh cut fruits, cucumbers, mint, etc.)

Stage 3: Soft Foods

Start Multivitamin and Mineral Regimen

At this stage, you will transition to more solid textured foods. These may include soft, tender cooked meats like fish and chicken, hot cereals, cooked vegetables, and canned or soft fresh fruit. The volume of food eaten will slowly increase over the course of the first few months.

Start: **After your surgeon clears you** (usually at your follow-up visit approximately two weeks after your surgery).

Estimated Duration: **1 – 2 months**

Goals: **Start multivitamin and mineral regimen**
Protein: **As calculated by your dietitian (refer to page 3)**
Fluids: **64 oz per day.**

Tips and Guidelines:

- **Avoid bread, rice, and pasta.**
- **Avoid raw fruits and vegetables with skins and seeds.**
- Make protein a priority by consuming protein sources first at meals.
- Drink plenty of fluids to meet goal of at least 64 ounces per day. Remember to sip fluids throughout the day, stop 30 minutes before a meal, and resume 30 minutes after a meal to avoid drinking during meals.
- Increase your protein intake by adding protein powder or dry skim milk powder to foods, such as oatmeal, yogurt, etc.
- Avoid fried foods and tough meats, such as steak and dry chicken. Use moist cooking methods (tenderize, poach, slow cooker, marinate). Try adding broth if meat is too dry.
- Take teaspoon-sized bites of food and chew on the food until it is the consistency of applesauce.
- Consume 3-6 small meals per day.
- Add a variety of low-fat, low-calorie starches, fruits, and vegetables to your diet as tolerated.
- Stop eating as soon as you feel full. Nausea is a sign you have eaten too much food.
- Continue using protein supplements to meet your daily protein requirements, as needed.

Stage 3: PROTEIN 1 Serving = Approximately 7 grams of protein Protein as calculated by your Dietitian (refer to page 3)	
•	1 oz chicken or turkey (tender, soft, no skin), thinly sliced, lean deli meats
•	1 oz 93% lean ground chicken or turkey
•	1 oz fish (tuna, cod, haddock, salmon, tilapia)
•	3 oz fat-free plain or unsweetened Greek yogurt
•	1 egg or 2 egg whites or ¼ cup Egg Beaters
•	¼ cup low-fat cottage cheese or part-skim ricotta cheese
•	½ cup tofu
•	½ cup beans or ½ cup refried beans
•	8 oz light yogurt (unsweetened preferred)
•	8 oz skim or 1% milk, or unsweetened soymilk
•	1 oz reduced-fat cheese or soy cheese (count as 1 fat serving)
•	1 stick light string cheese (count as 1 fat serving)
Stage 3: VEGETABLES / FRUITS / STARCH Servings will vary per person	
•	½ cup unsweetened applesauce
•	½ cup mashed banana or canned pears or peaches (no juice/syrup)
•	½ cup skinless baked apple or pear
•	½ cup skinless sweet potatoes
•	½ cup pureed butternut squash
•	½ cup steamed zucchini (peeled)
•	½ cup steamed carrots
•	½ cup mashed cauliflower
•	1 cup low fat creamed soup made with skim or 1 % milk
•	½ cup cooked oatmeal, cream of wheat, or farina

Stage 3: FAT

Choose up to _____ servings per day

Servings will vary per person

- 1 teaspoon butter, margarine, oil, mayonnaise, creamer, half and half, or creamy nut butter
- 1 tablespoon light margarine, light salad dressing, fat-free gravy, or light mayonnaise
- 1 tablespoon avocado or guacamole
- 2 tablespoons hummus

Stage 3: Sample Meal Plan

1 Protein Serving = 7 grams protein

8 AM	6 oz fat-free unsweetened Greek yogurt – (2 proteins - <i>Approximately 14 grams of protein</i>) 1/2 cup mashed pears
9 AM	8 oz of calorie-free fluid (water)
10 AM	¼ cup cottage cheese - (1 protein - <i>Approximately 7 grams of protein</i>)
11 AM	8oz of calorie-free fluid
12 PM	8oz of calorie-free fluid
1 PM	2 oz tuna fish – (2 proteins- <i>Approximately 14 grams of protein</i>) ½ cup steamed carrots 1 Tbsp. avocado
2 PM	8oz of calorie-free fluid
3 PM	8oz of calorie-free fluid
4 PM	8oz of calorie-free fluid
6 PM	2 oz diced chicken or turkey - (2 proteins- <i>Approximately 14 grams of protein</i>) ½ cup sweet potato 1 Tbsp. light margarine
7 PM	8 oz of calorie-free fluid
8 PM	1 oz low-fat cheese (1 protein – <i>Approximately 7 grams of protein</i>) 2 oz sliced deli ham - (2 protein - <i>Approximately 14 grams of protein</i>)
10 PM	8oz of calorie-free fluid
Totals:	Approximately 70 g Protein and 64 oz Fluids

Stage 4: Regular Consistency Foods

Regular high protein, low-fat, low-sugar diet

Start: When you are consistently tolerating soft foods well (usually between 1-2 months after surgery).

Duration: Ongoing

Goals: 1000-1500 calories per day. Women will usually be lower on the calorie range, and men may be higher. Calorie needs may be slightly higher for those who are exercising regularly.

- Protein as calculated by your Dietitian
- 64 oz calorie-free fluids
- Continue vitamin and mineral supplementation

Tips and Guidelines:

- **Try one “new food” per day.**
- Aim for high protein, low-fat, low-sugar meals.
- Avoid empty calories. Focus on nutrient-dense foods.
- Eat 3 meals per day with calorie-free fluids between meals. Some may do better with 6 small meals per day.
- Stop eating whenever you feel full.

You may now eat:

- **Raw fruits and vegetables with peelings and seeds**
- **High fiber wheat bread, wheat crackers or cereals**
- **Nuts and seeds**

Stage 4: Sample 1000 – Calorie Meal Plan

1 Protein Serving = 7 grams protein

8 AM	• 1 egg (1 protein) • 1 oz low fat cheese (1 protein) • ¼ cup chopped peppers • ½ toasted whole wheat English muffin • 1 tsp margarine (1 fat) <i>(2 proteins - Approximately 14 grams protein)</i>
9 AM	8 oz Decaf coffee / tea
10 AM	3 oz fat-free Greek yogurt - (1 protein – <i>Approximately 7 grams protein</i>)
11 AM	8 oz calorie-free beverage
1 PM	• 3 oz tuna fish - (3 proteins – <i>Approximately 21 grams protein</i>) • 2 rye crisps • 1 Tbsp light mayo (1 fat) • ½ cup pear
2 PM	8 oz calorie-free beverage
3 PM	1 medium apple
4 PM	8 oz calorie-free beverage
5 PM	8 oz calorie-free beverage
6 PM	• 3 oz diced chicken - (3 proteins – <i>Approximately 21 grams protein</i>) • 2 Tbsp sweet potato, • ½ cup green beans
7 PM	8 oz calorie-free beverage
8 PM	8 oz calorie-free beverage
10 PM	8 oz decaf tea
TOTALS	63 g protein, 64 ounces

Shopping List Suggestions

Stage 2 and Stage 3

*Can use baby foods **Low sugar (Less than 15 grams sugar per serving)

As you heal and progress, you may slowly experiment with other food textures. You are not limited to this list.

	Stage 2 <i>Liquid and Semi-liquid</i>	Stage 3 to 4 <i>Soft to Regular Texture Foods</i>
PROTEIN FOODS <u>SELECT FIRST</u>	Smooth yogurt**	Pureed or ground meats*
	Smooth, sugar-free pudding**	Eggs
	Low-fat or non-fat butter milk	Egg Substitute, or egg whites
	Low fat or nonfat milk (may need lactose-free)	Fish (steamed or poached)
	Light soymilk	Canned tuna (water-packed)
	Protein shakes, powders, and supplements**	Canned chicken (water-packed)
	Creamed soups (strained)	Low-fat or non-fat cottage cheese or ricotta
		Low-fat or non-fat soft cheese (i.e. Laughing Cow, cream cheese)
		Low-fat hard cheeses (i.e. Jack, Cheddar)
		Turkey or chicken lunch meat (thinly sliced)
		Tofu
		Soy cheeses
		Refried beans, vegetarian or fat-free
		Hummus or other smooth bean dips/spreads
		Creamy nut butter
VEGETABLES <u>SELECT SECOND</u> (if not full)	Tomato or Vegetable juice	Canned chili
		Carrots*
		Beets (mashed or pureed)*
		Pumpkin (mashed or pureed)*
FRUITS <u>SELECT THIRD</u>		Avocado (mashed)
		Applesauce
		Canned peaches (low sugar, mashed)
		Canned pears (low sugar, mashed)
		Watermelon
STARCHES		Banana (mashed or pureed)
	Cream of wheat or rice cereal	Sweet Potatoes (mashed without skins)*
	Grits	Potatoes (mashed without skins)
	Malto meal	Oatmeal
		Polenta
		Couscous
		Quinoa
MISCELLANEOUS		Plain low-fat crackers
	Broth, bouillon or consommé	
	Bone broth	
	Jell-O (sugar-free)	
	Sugar-free popsicle	

Potential Post-Op Concerns and Tips for Resolution

Possible Problem	Suggestions
Nausea and vomiting	- You may be eating too fast or too much, or not chewing enough. If nausea occurs after eating a new food, wait a week before trying it again. It may be necessary to go back to full liquid consistency foods for a while. - Remember to avoid sweets. - Consider room temperature fluids if hot or cold fluids are irritating. - If you are unable to keep down any solid food, call your surgeon for evaluation.
Dumping Syndrome	- Symptoms might include nausea, vomiting, sweating, bloating, diarrhea, etc. This usually occurs after consumption of high-fat or high-sugar foods. The symptoms can last about 30 minutes or longer. - Try dry meals (liquids separated from food) that are low in simple sugar and fat. Lie down immediately after eating if symptoms persist.
Dehydration	- Dehydration may occur if vomiting or diarrhea is persistent, or if fluid intake is not at least 48 – 64 oz per day. - Remember to drink beverages that are low in sugar. - Sip fluids consistently throughout day to maintain hydration. - Watch for symptoms of dry mouth, decreased urination, darker urine color, lightheadedness, or nausea. - If symptoms persist or you are unable to consume at least 48 oz of fluid per day, please contact your surgeon.
Constipation	- Constipation may occur during the first month after surgery, but usually resolves itself as the body adjusts to the smaller volume of food. - You may need to increase your fiber and fluid intake. Food records will help you quantify how much you are actually drinking. - Adequate fluids and regular intake of fruit and vegetables may prevent re-occurrence. - Consider a fiber supplement such as Benefiber or Metamucil, if approved by your surgeon.

Diarrhea	• Many patients may experience lactose intolerance after surgery due to sugar found in milk products called lactose. • Aim to avoid sugars and sweets and drink low lactose or lactose-free milk. • Limit high fiber and greasy foods. • Limit intake of sugar alcohols to prevent diarrhea.
Burping	• The body usually adapts to the changed anatomy and burping resolves within a few months. • Try eating slower and chew food longer to swallow less air. • Avoid carbonated beverages and avoid straws. • Consider over-the-counter Simethicone or Gas-X, if approved by your surgeon.
Blockage of the stomach opening	• Temporary blockage may occur if a large particle of food is swallowed without thorough chewing. • Temporary blockage is common with starchy foods (bread, rice, pasta), which tend to form a doughy “clog.” • If pain nausea and vomiting persist, contact your surgeon.
Stretching of the stomach pouch	• This may occur after eating large quantities of food at one time. In early post-op weeks, modify food texture gradually. • Keep liquids separate from meals (after Stage 2).
Hair loss	• This is common in the first 3-6 months after surgery. Rapid weight loss disrupts the normal growth cycle of individual hairs. • Inadequate protein intake may exacerbate the problem. • Strive to meet your protein goals daily. • Stay hydrated by consuming 64oz fluids per day. • Take your vitamins and minerals on a regular basis. • Consider supplementing with Biotin 5,000 mcg/day for 6-8 weeks. • Some patients have found regular use of minoxidil helpful in stimulating hair re-growth. • Nioxin[®] shampoo has been found to be helpful. You can find this shampoo at most beauty salons.

Gallstones	• Formation of gallstones is possible during weight loss. • Please let your surgeon know if you develop right upper or upper abdominal pain, nausea or vomiting that seem to be triggered by eating. • Discuss with your surgeon if medication is necessary for prevention.
Slow Weight Loss	Weight plateaus are common. • Do not weigh yourself every day. Try weekly instead. • Do not consume caloric beverages. • Avoid high fat and high calorie foods. • Do not graze between meals. • See your dietitian and ask about potential sources of excess calories. • EXERCISE! Increase intensity, frequency and duration.

Bariatric Vitamin and Mineral Recommendations

Start: When beginning the Stage 3 Diet

Duration: Ongoing

Rationale: Due to the volume-restricted nature of the post-bariatric diet, it may be very challenging to meet vitamin and mineral needs through diet alone. Therefore, lifetime supplementation is advised.

Guidelines:

- Avoid gummy vitamins. These can be challenging to digest for bariatric patients, high in sugar, and an inadequate source of nutrients.
- Consider chewable or liquid supplements for the first 2-4 months after surgery.

Multivitamin with Minerals

Vitamin/Mineral	Recommended Amount per Serving
Iron	18 mg 45-60 mg of elemental iron for menstruating women
Copper	1-2 mg
Zinc	8-22 mg
Vitamin A	5,000-10,000 IU
Vitamin B1 (Thiamine)	>12 mg; preferably 40-50 mg
Vitamin B9 (Folate)	400-800 mcg 800-1,000 mcg for women of child-bearing age
Vitamin E	15 mg
Vitamin K	90-120 mcg

Calcium

Dose: 1,200-1,500 mg/day, taken in divided doses (e.g., 600mg 2x/day or 500mg 3x/day)

- Calcium carbonate: should be taken with meals
- Calcium citrate: can be taken with or without meals; more efficiently absorbed

Tips: Take smaller doses as outlined above for better absorption.

Avoid taking with iron or multivitamin. Allow 2-3 hours to pass between taking the multivitamin and calcium supplements.

Vitamin D3

Dose: 3,000 IU/day until blood levels are sufficient

NOTE: Dose will depend on the results of your bloodwork; if deficient, speak with your doctor.

Vitamin B12

Dose: 350-1,000 mcg/day

Can be taken sublingually, nasally, or as a monthly injection.

- Nasal: as directed by your PCP
- Injection: 1,000 mcg/month

Tips: Avoid time-released formulas.

Example: Daily Supplement Schedule

Time of Day	Supplement
Breakfast- 9:00 AM	Multivitamin with minerals Vitamin B12 Vitamin D3
Lunch- 12:00 PM	Calcium with vitamin D (400-500mg)
Dinner- 6:00 PM	Calcium with vitamin D (400-500mg)
Bedtime- 10:00 PM	Calcium with vitamin D (400-500mg)

Bariatric formulas are also available:

- Bariatric Fusion® <https://www.bariatricfusion.com/>
- Bariatric Advantage <https://www.bariatricadvantage.com>
- Celebrate® Vitamins <https://www.celebratevitamins.com/>
- Procare Health One-a-Day <https://www.procarenow.com/>
- Opurity® <https://www.unjury.com/vitamins.html>

Note:

- Please reach out to your surgeon or dietitian if you have questions.
- You will do routine lab work with your surgeon to check for vitamin/mineral deficiencies. Your regimen may need to be adjusted accordingly.

Reading List and Resources After Surgery

The Gastric Sleeve By Dr. Guillermo Alavarez	Before & After: Living & Eating Well After Weight Loss Surgery By Susan Maria Leach
The Sleeved Life By Pennie Nicola	The Emotional First + Aid Kit: A Practical Guide to Life After Bariatric Surgery, Second Edition By Cynthia L. Alexander, PhD
Weight Loss Surgery-Finding the Thin Person Hiding Inside You! By Barbara Thompson	Weight Loss Surgery for Dummies By Dr. Mariana S. Kurian, Barbara Thompson, and Brian K. Davidson
Weight Loss Surgery- Understanding and Overcoming Morbid Obesity By Michelle Boasten	The Good life Weight Loss Surgery Cookbook By Rosemary Dolloff
The Pathway-Follow the Road to Health and Happiness By Laurel Mellin, MA, RD	Weight Loss Surgery Cookbook By Michelle Border
The Intuitive Eating Workbook By Evelyn Tribole, MS, RDN and Elyse Resch MS, RDN	Fresh Start: Bariatric Cookbook By Sarah Kent, MS, RDN, CD
Codependent No More: How to Stop Controlling Others and Start Caring for Yourself By Melody Beattie	Small Bites Daily Inspirations for Weight Loss Surgery Patients By Katie Jay and Julia A.F. Persing
Never Binge Again By Glenn Livingston, Ph.D.	The Complete Bariatric Cookbook and Meal Plan By Megan Moore, RD

Internet Resources

- **American Society of Metabolic and Bariatric Surgery:**
 - ASMBS.org
- **Recipes, lifestyle tips, blogs etc.**
 - Theworldaccordingtoeggface.blogspot.com/p/links-resources.html
 - Pinterest.com
 - BariatricFoodie.com
 - BariatricCookery.com
 - Foodcoach.me
 - Baribox.org
- **Navigating Insurance:**
 - Wlsappeals.com/
 - Obesityaction.org/wp-content/uploads/INSGUIDE713.pdf
- **Online forums:**
 - Obesityhelp.com
 - Bariatricpal.com
 - Free weekly virtual support group sponsored by Unjury
https://try.unjury.com/best-bariatric-online-support-group/?gclid=EAlaIQobChMI2qLHi-TA_QIVAgWtBh0QwQfzEAMYASAAEgL4OfD_BwE
- **Apps:**
 - <https://www.baritastic.com/>
 - <https://Myfitnesspal.com/>
 - <https://www.loseit.com/>

Food Journal for weeks 1-2 after surgery

Goals: 64 total oz of fluids per day. Generally, 32 oz from clear liquids, and 32 oz from full liquids.

	Time	Item	# Grams of Protein	# Fluid oz.
Day 1				
Day 2				
Day 3				
Day 4				
Day 5				
Day 6				
Day 7				
Day 8				
Day 9				
Day 10				
Day 11				
Day 12				
Day 13				
Day 14				
Day 15				
Day 16				
TOTAL				

Pre-Weight Loss Surgery Post Education Test

1. How many grams of protein are found in 1 oz of meat?
a. 10 grams b. 7 grams c. 5 grams d. 12 grams
2. After surgery, how many grams of protein will you need per day? _____
3. What is the **minimum** amount of protein recommended in a protein supplement?
a. 5 grams b. 15 grams c. 10 grams d. 35 grams
4. How long should you remain on stage 2 diet after weight loss surgery?
a. 1 month
b. Until you feel ready to advance
c. Until your surgeon clears you
d. For only 2 weeks
5. True or False: You should eat protein first at every meal.
True False
6. What is a good protein source on stage 2? _____
7. What stage should you start your vitamin regimen? _____
8. How long should it take to consume your meals after weight loss surgery?
a. 5 minutes b. 10 minutes c. 2 hours d. 30 minutes
9. True or False: You should wait 30 minutes after you eat to drink your fluids?
True False
10. How much fluid should you consume per day after weight loss surgery?
a. 20 oz b. 60 oz c. 64 oz d. 40 oz