

Bariatric Surgery Guide

Mercy Bariatric Center - Northwest Arkansas

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About This Guide

If you're considering bariatric (weight loss) surgery, it's important to be well informed about the procedures, their benefits and risks. This guide and our bariatric surgery team at Mercy Bariatric Center Northwest Arkansas provide the information you need to decide if weight loss surgery is right for you. Our surgeons, Drs. Mark Perna and Pradeep Pallati, have extensive training and experience in both bariatric and general surgery. Our care team wants you to have the greatest chance for long-term success. The path to successful weight loss surgery involves many steps, but we're with you every step of the way.

Getting Started

Education is the foundation for long-term weight loss success and good health. Surgery is a serious step and may be considered when:

- Other methods have failed to maintain weight loss
- You've done sufficient research
- You've discussed your options with your primary care physician or other health care providers

Understanding the Impact of Obesity

Obesity is an epidemic that continues to grow at an astounding rate and impacts a significant number of U.S. adults. It's a progressive, chronic disease with many contributing factors. Environmental, cultural, socioeconomic, psychological and genetic factors can contribute to obesity. Calorie intake, energy used, diet composition, sleep patterns, physical and sedentary activity, and body composition also play a role.

People struggling with excess body weight have an elevated body mass index (BMI), placing them at greater risk for chronic conditions like heart disease, stroke, type 2 diabetes, high blood pressure, high cholesterol and mental health disorders. Obesity is also linked to many other diseases and conditions, such as obstructive sleep apnea, asthma, hardening of the arteries, gastroesophageal reflux disease, infertility and several types of cancers (breast, uterine, prostate, renal, colon and pancreatic).

Unfortunately, people with a BMI of 35 or greater have less than a 1% chance of achieving and maintaining a normal body weight for a prolonged time on their own.

Treating Obesity

Weight loss surgery is an effective and lifelong tool for treating obesity and weight-related diseases. It may be an option for you if lifestyle changes like diet and exercise haven't worked or you have significant weight-related conditions. Weight loss surgery works by changing the anatomy of your gastrointestinal (GI) tract. These changes affect your appetite, satiety (fullness) and metabolism. After surgery, about 90% of people lose half of their excess weight and maintain the weight loss long term.

Choosing weight loss surgery requires careful consideration. You must clearly understand and realistically plan for lifestyle changes before and after the operation. Weight loss surgery is a very effective tool, but it isn't a quick fix. Surgery candidates must commit to making significant lifestyle changes. Making these changes before weight loss surgery increases your chance of long-term success. The foundation for better health before and after surgery includes:

- ✓ Nutrition education
- ✓ Quality proteins and vitamins
- ✓ Activity and exercise
- ✓ Mental health and mindset
- ✓ Support and self-care

People with a BMI greater than 40 are candidates for weight loss surgery. They're generally 100 pounds overweight for men and 80 pounds overweight for women. Weight loss surgery is also an option for people with a BMI of 35-40 who have obesity along with other weight-related conditions like high blood pressure, obstructive sleep apnea, type 2 diabetes, heart disease, nonalcoholic fatty liver disease and endocrine (hormone imbalance) disorders. Insurance plans may have specific criteria for weight loss surgery coverage. You're responsible for making sure you meet criteria before pursuing surgery.

At Mercy, you must meet the weight and size restrictions for essential diagnostic equipment. While we can perform surgery at or above 500 pounds, the ability to treat postoperative complications may be limited. We evaluate you individually and work to accommodate your safety. Our team may ask you to lose a specific amount of weight before surgery for your safety.



Benefits of Weight Loss Surgery

Bariatric surgery provides an abundance of metabolic and health benefits beyond weight loss. These surgeries effectively treat type 2 diabetes, high blood pressure, obstructive sleep apnea and high cholesterol. For example, many patients achieve long-term remission from type 2 diabetes and discontinue their insulin or oral medications. Over 80% of patients with obstructive sleep apnea also enter remission.

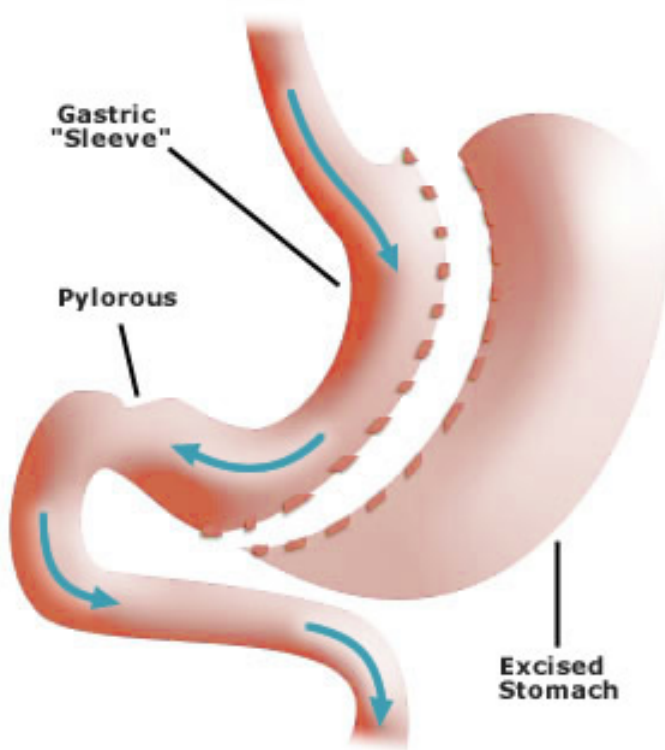
Weight loss surgery can improve fertility, decrease joint pain, lower stroke risk and reduce coronary heart disease risk. It can also help prevent many future diseases. Extensive scientific research has shown weight loss surgery lowers the risk of death for obese people by 40%. Studies also show weight loss surgery lowers their risk of dying from heart disease by 40%, diabetes by 92% and cancer by 60%.

Weight Loss Procedures

These operations alter the stomach and intestines in a way that reduces excess weight and provides metabolic benefits. At Mercy, our goal is to safely use minimally invasive, laparoscopic surgical techniques that help reduce pain, lower the risk of complications and shorten recovery times. In some cases, laparoscopic surgery can't be performed safely due to anatomical or other reasons. In those cases, our doctors use an open procedure, where a larger incision is made in the abdomen.

Sleeve Gastrectomy

Sleeve gastrectomy is a procedure that removes about 70-80% of the stomach. The remaining stomach (or sleeve) is about the shape and size of a small banana. Removing a large portion of the stomach limits the volume of food (or calories) you can consume, promoting weight loss. The portion of the stomach that's removed is also the main area from which the hunger hormone (ghrelin) is secreted. The decrease in ghrelin levels leads to reduced appetite, improved fullness and other metabolic benefits. Typically, you can lose 60-70% of your excess body weight with this procedure.



Advantages

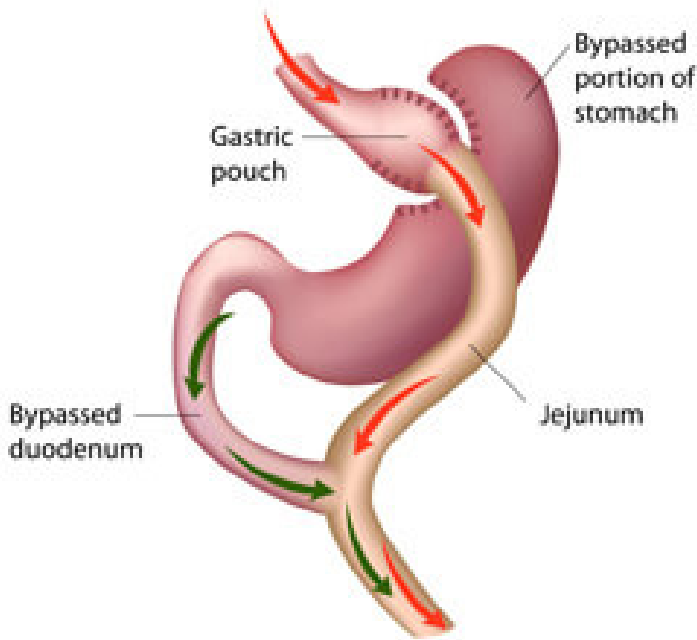
1. Is typically a shorter and simpler procedure
2. Can be performed in certain people with high-risk medical conditions
3. Results in effective weight loss, and improves obesity-related conditions
4. Requires no anastomoses (reconnecting) or rerouting of the intestinal tract (no malabsorption)
5. Carries less risk of vitamin and mineral deficiencies than gastric bypass

Disadvantages

1. Nonreversible procedure
2. May worsen or cause reflux and heartburn
3. Less impact on metabolism compared to gastric bypass
4. Potentially slower or less weight loss compared to gastric bypass
5. Potential for gastric leaks due to the stapled resection of the stomach

Roux-en-Y Gastric Bypass (RYGB)

This procedure involves stapling off the upper section of the stomach and reducing it to about the size of a large egg. This restricts the amount of food you can consume. The remaining pouch is attached directly to part of your small intestine called the Roux limb. This forms a "Y" shape. Consumed food then bypasses the rest of your stomach and upper portion of your small intestine. This reduces the fat and calories you can absorb from foods you consume. It also partially impairs absorption of some vitamins and minerals. Like the gastric sleeve, this procedure promotes fullness, reduces hunger and offers metabolic improvements. Typically, you can have a 70-80% loss of excess body weight with this procedure.



Advantages

1. Reliable and long-lasting weight loss
2. Restrictive and malabsorptive, promoting greater weight loss
3. Effective remission of obesity-associated conditions (such as type 2 diabetes)
4. Refined and standardized technique
5. Ideal for people with gastroesophageal reflux disease
6. Reduces the risk of hypertension, sleep apnea and some heart conditions

Disadvantages

1. Technically a more complex surgery compared to the gastric sleeve
2. More vitamin and mineral deficiencies than the sleeve
3. Increased risk of iron and B12 anemias and osteoporosis
4. Risk for small bowel complications or obstructions
5. May cause dumping syndrome when stomach contents move too quickly through intestines
6. Potential for gastric leaks due to the stapled resection of the stomach

Your Program Pathway

Our multispecialty program is designed to increase your long-term weight loss success. The following steps outline our program requirements:

- 1. Seminar** – You're required to attend a Mercy bariatric seminar (virtually), complete new-patient paperwork, provide updated insurance coverage, and submit medical records before your first visit (in some cases)
- 2. Initial Consult** – You have an initial visit with our care team so they can review your medical history, assess surgical risks and answer your questions; you also meet with our program coordinator, dietitian and patient account representative; initial lab work is ordered and must be completed before your next visit
- 3. Initial Education** – You attend a nutrition-and-exercise class at the beginning of the program (Start-Up Class)
- 4. Nutrition Counseling** – You meet with a dietitian to learn about dietary changes and readiness behaviors before surgery; you'll meet at least once before surgery; after surgery, you'll meet at one month, three months and annually; you're required to bring your food log to each visit
- 5. Behavioral Health** – You participate in a group behavioral health program that our team designed specifically for weight loss surgery patients; before surgery, you attend a group seminar to equip you with tools to maximize your post-surgery success
- 6. Psychological Evaluation** – You participate in an individual psychological evaluation; additional visits or counseling may be required before surgery
- 7. Exercise Assessment** – You attend a pre-surgical exercise assessment with a physical or exercise therapist, who provides a plan tailored to your abilities and needs
- 8. Pre-surgery Visits** – You meet with our care team monthly before surgery to monitor your progress; most insurance plans and our program require consecutive monthly visits; it's your responsibility to schedule and keep all appointments
- 9. Testing** – You *may* be required to have specialty testing before surgery, such as pulmonology, cardiology, nephrology, neurology or other testing; our team lets you know if testing is required
- 10. Tobacco Cessation** – You're required to be nicotine-free for four months before surgery and the rest of your life after surgery; nicotine tests are required before surgery
- 11. Insurance Pre-authorization** – Prior authorization from your insurance plan is required before surgery; it can take up to four weeks (or longer, in rare cases); if you have questions, contact your insurance plan or our patient account representative
- 12. Wrap Up** – You attend a comprehensive wrap-up class before surgery; you must complete your lab work and all nutrition, exercise and behavioral health visits before attending the wrap-up class; surgery can't be scheduled without attending a wrap-up class
- 13. Final Payment** – Your final payment may be due before your surgery
- 14. Final Pre-surgical Visit** – At this visit, you complete and sign your consent forms and ask any remaining questions
- 15. Pre-admission Testing** – This visit is completed at Mercy Hospital, where you receive pre-surgical education and complete any remaining labs and tests before surgery
- 16. Family Medical Leave Act (FMLA)** – If you need FMLA paperwork completed, you must provide your FMLA packet to our office at least two weeks before surgery
- 17. Surgery** – After your surgery is scheduled, our staff notifies you of your surgery time, which is subject to change; to confirm your arrival time, contact Mercy Surgery Scheduling at 479.338.2996 two days before surgery; don't eat or drink after midnight on the night before surgery; at your pre-admission appointment, you're advised about medications you can take the morning of surgery; you can bring personal items to make your hospital stay more comfortable
- 18. Follow-up Visits** – These visits are critical to your success after surgery; you'll have follow-up visits between seven and 14 days after surgery to have staples removed, review progress and monitor your diet; you'll follow up with the bariatric team at one, three and six months and then annually; lab work is ordered for the three-month and annual visits; your care team answers questions at each visit; and you'll also meet with the dietitian
- 19. Primary Care Provider** – Contact your primary care provider for concerns like blood pressure changes, diabetes medication or CPAP settings; all other visits are with our bariatric team as part of the program and your post-operative care

Lab Work

H. pylori Breath Test & Pre-Operative Lab Instructions

At the start of the program, you complete a comprehensive lab panel and a Helicobacter pylori (H. pylori) breath test. H. pylori is a harmful bacterium in the stomach that can cause complications like peptic ulcers after surgery. If you test positive, our doctors treat the infection before surgery.

Lab orders are placed at the initial consult and must be **completed before the first follow-up visit** and absolutely no later than the second follow-up visit. You must **fast** (nothing to eat) from midnight the night before until you have your labs and breath test done. At least two hours before the breath test, you must also stop clear liquids.

Two weeks before the H. pylori breath test, discontinue all the following:

- Antibiotics
- Bismuth (Pepto Bismol)
- Dexilant
- Nexium
- Prilosec
- Protonix
- Tagamet
- Prevacid
- Proton pump inhibitors
- Zantac
- Pepcid

Two days before the H. pylori test, discontinue any Tums (calcium carbonate).

Mercy uses Quest Diagnostics for lab work. Visit one of these locations:

2708 S. Rife Medical Lane
Ste. T30 | Rogers
888.277.8772

1 Mercy Way
Bella Vista
888.277.8772

4815 Elm Springs Rd.
Springdale
888.277.8772

1000 SE Walton Blvd.
Ste. 16 | Bentonville
888.277.8772

7 E. Appleby Rd.
Ste. 1 | Fayetteville
888.277.8772

Appointments for lab work are suggested but not required.

Schedule online at [QuestDiagnostics.com/appointment](https://www.questdiagnostics.com/appointment) or call 1.888.277.8772.

Surgery Risk

According to the American Society for Metabolic and Bariatric Surgery (ASMBS), bariatric surgery is extremely safe, with complication rates similar to common operations like gallbladder removal, hysterectomy and hip replacement. But all surgery carries some risk. You're put under general anesthesia, and carbon dioxide is administered into the abdominal cavity during the procedure. Our program is nationally accredited, having met stringent criteria to lower the risk of surgical complications. The risk of death is less than 0.1%.

Surgery risks are divided into two groups, based on whether they're associated with weight loss surgery or abdominal surgery.

Weight Loss Surgery Risks

- Anastomotic leak
- Ulcer
- Stricture
- Cholecystitis
- Nutritional deficiency

Abdominal Surgery Risks

- Deep vein thrombosis (DVT)
- Sepsis
- Bleeding
- Abscess
- Pulmonary embolism (PE)
- Pneumonia
- Atelectasis
- Abdominal adhesions
- Small bowel obstruction

Anastomotic Leaks

Anastomotic leaks can occur after weight loss surgery but happen in less than 1% of cases. Leaks can develop at sites of altered or new anatomy, causing fluids and food to escape from the GI tract and enter the abdominal cavity. These fluids create a warm, moist environment that facilitates bacterial growth. Bacteria can spread throughout the body and lead to sepsis, a dangerous systemic condition. Treatment of anastomotic leaks can include antibiotics, surgery or placement of esophageal stents or drains. Occasionally, drains are placed at the time of the original weight loss surgery as a precaution. Anastomotic leaks generally heal but can take a long time. A slow return to oral intake is often required.

Sepsis & Abscess

Sepsis and abscess are serious bacterial infections that can occur after weight loss surgery. Sepsis usually begins with leaked bacteria in the abdominal cavity (a warm, moist environment). Bacteria can enter the bloodstream, leading to a serious systemic infection. Antibiotics, hospitalization or surgery may be required to treat sepsis. This serious condition affects the function of the body's vital organs and may be fatal. Abscess can occur when bacteria remain in a localized, walled-off area. Infection doesn't usually spread throughout the bloodstream, but an abscess may need to be drained. Re-admission to the hospital, an extended stay, antibiotics or other supportive therapies may be required.

Marginal Ulcers

Ulcers are painful erosions in the lining of the GI tract. After weight loss surgery, ulcers can develop at or near the connection of the gastric pouch and small bowel. Symptoms include upper abdominal pain, nausea, vomiting, regurgitation of acid into the esophagus and loss of appetite. In serious cases, ulcers can bleed, causing bloody stools or low blood counts. In the worst cases, ulcers can perforate (make a hole) in the GI tract, which requires surgical repair. Common causes of ulcers after weight loss surgery include using nicotine, taking nonsteroidal anti-inflammatory drugs (NSAIDs), taking other medications, drinking alcohol or caffeine excessively, and experiencing severe life stress. Not taking the prescribed medications to prevent ulcers after surgery also increases risk (see the Ulcer-Preventive Medications section). Ulcer-preventing medications should be taken for at least six months after surgery to promote healing of the staple lines. Ulcers can be treated with lifestyle modifications and medication. People who develop marginal ulcers need to eat required amounts of protein, quit all tobacco products, refrain from taking NSAIDs, and avoid or limit caffeine and alcohol. Marginal ulcers are treated with a combination of medications that includes acid-reducing drugs. They can take a long time to heal completely.

Strictures

Strictures (narrowing of the GI tract) can occur after weight loss surgery. Strictures often develop at the anastomosis (connection between the gastric pouch and the small bowel) and cause extra scar tissue to form the staple line. This narrows the area and can keep food and liquids from passing through the GI tract. Strictures can cause nausea, vomiting, poor oral intake, dehydration, malnutrition or acid reflux. They're treated on an outpatient basis with upper endoscopy and balloon dilation. During endoscopy, an instrument is placed through the narrowing and a balloon is inflated to dilate the stricture. Multiple dilations may be

needed to prevent recurrence. If dilations aren't successful, stent placement or surgery may be required.

Bleeding

Bleeding is possible after weight loss surgery because it's performed near very large vessels and vascular organs, such as the aorta, vena cava, splenic artery and vein, spleen and liver. Although extremely rare, these structures can be injured. Most lacerations are repaired without incident, but if massive bleeding occurs, it can be fatal. Bleeding from the stomach or small intestines can happen after surgery. Complete blood counts are monitored, and if they fall, transfusions or reoperation may be required.

Cholecystitis (Gallbladder Inflammation)

Inflammation of the gallbladder (cholecystitis) is common with obesity and after weight loss. Most people don't develop gallbladder problems, so the organ isn't routinely removed at the time of surgery. Previous gallbladder removal doesn't interfere with weight loss surgery.

Deep Vein Thrombosis (DVT) & Pulmonary Embolism (PE)

Obesity and abdominal surgery raise the risk of developing DVT and PE. This occurs when blood clots develop in the deep veins of the leg and travel to the lungs. The condition can be very serious or even fatal. PE is the leading cause of death after weight loss surgery. Prevention of DVT and PE is important to your health and safety. Walking (early and often) after surgery helps prevent blood clots. While lying flat after surgery, point and flex your feet to mimic walking. To help prevent DVT and PE, you're given a blood thinner before and after surgery. You also wear inflatable compression stockings during and after surgery to lower the risk of clotting.

Pneumonia & Atelectasis

Lung complications can occur after weight loss surgery when you take short and shallow breaths due to pain. This can cause the alveoli in the lungs to collapse and stick together — a condition called atelectasis that can lead to pneumonia. Walking is the best and most effective way to help prevent atelectasis and pneumonia. Take deep breaths every 10-15 minutes while awake. Compliance with this is essential

Adhesions & Small Bowel Obstruction

After any abdominal surgery, adhesions (scar tissue in the abdomen) can develop. Adhesions can cause the small bowel to adhere to itself, the abdominal wall or an organ. The small bowel is constantly in motion (or peristalsis). Adhesions can cause twisting or kinking of the bowel, creating an obstruction or blockage. Symptoms of

obstruction include abdominal pain, nausea, distention and vomiting. If you experience these symptoms after surgery, go to the nearest ER. You may be admitted to the hospital, need IV fluid rehydration and may have a nasogastric tube used to decompress your abdomen. Inform caregivers that you had bariatric surgery because the gastric pouch is very small and can be punctured by this tube. If symptoms don't improve after 24-48 hours, you may need surgery to divide the adhesions and relieve the obstruction. Adhesions may redevelop in the future.

Nutritional Deficiencies

Weight loss surgery alters your anatomy and changes the way you absorb vitamins and micronutrients. Nutritional deficiencies can occur after surgery due to poor diet habits or not following the recommended vitamin supplements regimen. It's much easier to prevent nutritional deficiencies than it is to treat them. After weight loss surgery, you'll need nutritional supplements for life due to deficiencies in vitamin B12, thiamin, calcium and iron. You'll have lab work three months after surgery and then yearly to help identify nutritional deficiencies, which can become serious or fatal.

Basic Nutrition Information to Know

A nutrient is a substance your body needs but can't make on its own. Nutrients come from sources outside your body, like food. The six main groups of nutrients are: proteins, carbohydrates, fats, vitamins, minerals and fluids. Nutrients are important sources of energy, hydration, vitamins and minerals.

Protein, carbohydrates, fats and fluids are called **macronutrients** (macro means large) because your body needs larger amounts (in weight) of these nutrients than vitamins and minerals. Protein, carbohydrates and fats contribute calories to your diet, while vitamins, minerals and water don't.

Protein = 4 calories per gram
Carbohydrates = 4 calories per gram
Fats = 9 calories per gram

Vitamins and minerals are called **micronutrients** (micro means small) because your body needs smaller amounts of them (in weight).

Understanding Proteins, Carbohydrates & Fats

All food can be categorized as proteins, carbohydrates, fats or a combination of these nutrients. This section contains food lists to help you identify food groups. Not all serving sizes listed are appropriate after surgery. Use the sizes as a starting point to determine the nutrient content of your food.

Proteins

Proteins are the building blocks of your body, helping you make and repair areas as small as cells to as large as muscles and skin. After weight loss surgery, protein becomes the most important nutrient you need. Eat a source of high-quality, low-fat protein first at each meal.

Daily Minimum Protein Goal
Women = 60 grams
Men = 80 grams

Carbohydrates

Many foods provide carbohydrates to your body, including:

- Starches (bread, rice, pasta, starchy vegetables, cooked beans, peas and lentils)
- Fruits
- Milk
- Non-starchy vegetables
- Sweets and desserts

Carbohydrates are your body's preferred energy source because they can be broken down quickly. While you may think carbohydrates are bad, that's not the case. Some are important sources of vitamins and minerals.

- **Complex Carbohydrates** - Fiber is a type of carbohydrate that slows down food absorption, regulates bowel movements and helps lower cholesterol; healthier carbohydrates are often called complex carbohydrates and are found in whole grains and non-starchy vegetables
- **Simple Carbohydrates** - Simple carbohydrates (or sugars) digest faster than complex carbohydrates; they're found naturally in fruits and low-fat milk; simple carbohydrates are good sources of vitamins and minerals; but simple sugars often added to food like sweets and desserts provide nothing other than calories and should be avoided or limited:

○ Table sugar	○ Brown sugar
○ Cane sugar	○ Sugar-in-the-raw
○ Invert sugar	○ Maple syrup
○ Molasses	○ Malt
○ Confectioner's sugar	○ Corn sweeteners
○ Turbinado sugar	○ Sucrose
○ High-fructose corn syrup	○ Maltose
○ Dextrose	

- **Fiber** – Fiber is a carbohydrate that’s helpful to digestion, blood sugar control and cholesterol levels. The two types of fiber are:
 - **Soluble fiber** – This fiber is found in oats and on the inside of many fruits and vegetables, such as apples; soluble fiber dissolves in your GI tract and becomes gummy; once it’s gummy, fiber binds with fatty substances in the GI tract and helps eliminate them as waste, which is how it helps to lower cholesterol
 - **Insoluble fiber** – This type of fiber doesn’t dissolve in the GI tract; it acts like a broom, sweeping along your GI tract and combining with water and solid waste; insoluble fiber helps keep bowel movements regular, and it’s found in whole grains and the skins of fruits and vegetables
- **Artificial Sweeteners** – These sweeteners were created to help reduce cavities from sugar and help diabetics maintain blood sugar control; some artificial sweeteners are calorie-free and can help with weight loss
 - **Sugar alcohols (called polyols)** – Sugar alcohols have calories (four per gram); common types are xylitol, sorbitol and mannitol; in some people, sugar alcohols cause gas, bloating or have a laxative effect
 - **Sugar substitutes** – Sugar substitutes are calorie-free; common types include aspartame (brand names NutraSweet® and Equal®), saccharin (brand names Sweet’N Low® and Sugar Twin®), sucralose (brand name Splenda®) and stevia (brand names Truvia® and Sweet Leaf®)
- **Non-starchy Vegetables & Fruit** – When you eat carbohydrates, most often they should come from non-starchy vegetables (refer to the Non-starchy Vegetables list); fruit should only be eaten at a meal if you’ve had a protein first
- **Starches** – Types of starches include bread, cereals and grains, starchy vegetables, crackers and snacks; starches should be eaten last; don’t eat more than one serving of any starch at a meal

Fats

Fats have more calories than protein and carbohydrates, so choosing low-fat foods is healthier. Fat helps your body produce hormones, gives you energy and transports fat-soluble vitamins (A, D, E and K) into your bloodstream. But it doesn’t take a lot of dietary fat to help your body perform these functions.

- **Unsaturated fats** (*choose most often*) – This fat is found mostly in plant products like olive oil, avocado, nuts and seeds; the two types are monounsaturated fat and polyunsaturated fat, and both are good for you; unsaturated fats are a good source of omega-3 fatty acids, which help prevent fatty-acid deficiency and heart disease; certain types of fish are excellent sources of omega-3 fatty acids, including salmon, albacore tuna, mackerel, sardines, halibut, trout and herring
- **Saturated fats** (*choose less often*) – Primarily found in animal products, saturated fat includes the fat trim on meats, butter and lard; certain tropical fruit products like coconut, coconut butter, coconut oil and palm kernel oil are high in saturated fat even though they’re plant sources
- **Trans fats** (*avoid*) – Trans fats are manufactured fats that sneak their way into foods like stick margarine, commercially baked goods, snack crackers, cookies, commercially fried foods and partially hydrogenated oil; trans fats are inflammatory to the body and can raise cholesterol

The best sources of dietary fat (in controlled quantities) are unsaturated fats. You’ll also get some fat from the meat and dairy you choose (amounts vary, depending on the type).

Combination Foods

Not all foods fit into one category. Some are sources of both fat and protein (like most cheeses), while others contain both carbohydrates and protein (like milk and beans). Combination foods should rarely be your primary source of protein at a meal. Use them as side dishes. For long-term weight loss and maintenance, most meals should include a serving of lean protein or meat substitutes as the main protein source. Read the nutrition facts labels of these foods for more exact information.

Food Lists

Proteins

Goal is a minimum of 60-80 grams per day.

Meat, Poultry & Eggs

Food From Cooked Weight	Serving Size	Protein in Grams
Beef	1 ounce	7 grams
Chicken	1 ounce	8.5 grams
Turkey	1 ounce	8.5 grams
Lamb	1 ounce	8 grams
Pork	1 ounce	7 grams
Ham	1 ounce	5 grams
Eggs (large)	1 ounce	6 grams

Seafood

Food From Cooked Weight	Serving Size	Protein in Grams
Salmon	1 ounce	7 grams
Tuna	1 ounce	7 grams
Shrimp	1 ounce	7 grams
Lobster	1 ounce	5.5 grams
Scallops	1 ounce	5 grams

Legumes, Grains & Vegetables

Food From Cooked Weight	Serving Size	Protein in Grams
Pinto beans	½ cup	11 grams
Lentils	½ cup	9 grams
Edamame	½ cup	9 grams
Black beans	½ cup	8 grams
Red kidney beans	½ cup	8 grams
Chickpeas	½ cup	7 grams
Black-eyed peas	½ cup	7 grams
Fava beans	½ cup	7 grams
Wheat berries	½ cup	6 grams
Lima beans	½ cup	6 grams
Quinoa	½ cup	4 grams
Peas (green)	½ cup	4 grams
Spinach (cooked)	½ cup	3 grams
Tofu (firm)	1 ounce	2 grams

Dairy Products

Food From Cooked Weight	Serving Size	Protein in Grams
Greek yogurt	6 ounces	18 grams
Cottage cheese (1%)	4 ounces (½ c)	14 grams
Fairlife® milk (skim)	1 cup (8 ounces)	13 grams
Regular yogurt (nonfat)	1 cup (8 ounces)	11 grams
Milk (skim)	1 cup (8 ounces)	8 grams
Soy milk	1 cup (8 ounces)	8 grams
Mozzarella cheese	1 ounce	7 grams
Cheddar cheese (low-fat)	1 ounce	7 grams
String cheese (nonfat)	1 piece	7 grams
Almond milk (unsweet)	1 cup (8 ounces)	1 gram

Nuts & Seeds (one serving per day)

Food From Cooked Weight	Serving Size	Protein in Grams
Soy nuts	1 ounce	11 grams
Pumpkin seeds	1 ounce	9 grams
Peanuts	1 ounce	7 grams
Almonds, pistachios, flaxseed & sunflower seeds	1 ounce	6 grams
Chia seeds	1 ounce	5 grams
Walnuts or cashews	1 ounce	4 grams
Peanut butter	1 ounce	4 grams

Non-starchy Vegetables

Each one-cup serving of raw vegetables (or half-cup serving of cooked vegetables) contains five grams of carbohydrates and about 25 calories.

- Artichoke
- Asparagus
- Bamboo shoots
- Bean sprouts
- Beets
- Broccoli
- Cabbage (green, bok choy or Chinese)
- Carrots
- Cauliflower
- Celery
- Cucumber
- Eggplant
- Green beans
- Green onions or scallions
- Greens (collard, kale, mustard or turnip)
- Jicama
- Kohlrabi
- Leeks
- Salad greens (chicory, endive, escarole, lettuce, romaine, arugula, radicchio or watercress; two cups salad greens = one serving of raw vegetable)
- Mushrooms
- Okra
- Onions
- Pea pods
- Peppers (all varieties)
- Radishes
- Rutabaga
- Sauerkraut
- Spinach
- Squash (summer, crookneck or zucchini)
- Sugar snap peas
- Swiss chard
- Tomato
- Turnips
- Water chestnuts

Fruits

Each serving has 15 grams of carbohydrate and about 60 calories. If a weight is provided, it includes the weight of the skin, core, seeds and rinds.

Fruit	Serving Size
Apple (unpeeled, small)	1 (4 ounces)
Applesauce (unsweetened)	½ cup
Apricots	½ cup (8 halves or 4 whole)
Banana (extra small or ½ of large, 3-4 inches)	1 (4 ounces)
Blackberries	¾ cup
Blueberries	¾ cup
Cantaloupe (small)	⅓ melon, or 1 cup cubed
Cherries	½ cup, or about 12 (3 ounces)
Dates	3
Dried fruits (blueberries, cherries, cranberries, mixed fruit or raisins)	2 tablespoons
Fruit cocktail	½ cup
Grapefruit	½ large (11 ounces)
Grapes (small)	17 (3 ounces)
Honeydew melon	1 slice, or 1 cup cubed
Kiwi	1 (3.5 ounces)
Mandarin oranges (canned)	¾ cup
Mango (small)	½ fruit (5.5 ounces or ½ cup)
Nectarine (small)	1 (5 ounces)
Orange (small)	1 (6.5 ounces)
Peaches	½ cup, or 1 whole (6 ounces)
Pears	½ cup, or ½ whole (4 ounces)
Pineapple	½ cup
Plums	2 small (5 ounces)
Raspberries	1 cup
Strawberries	1 ¼ cup whole berries
Tangerines (small)	2 (8 ounces)
Watermelon	1 slice or 1 ¼ cup cubed

Starches

Try to limit foods from this category.

Breads, Crackers & Snack Foods: Each serving has 15 grams of carbohydrate and about 80 calories.

Starch: Breads, Crackers & Snack Foods	Serving Size
Bagel (large, about 4 ounces)	¼ (1 ounce)
Biscuit (2.5 inches across)	1
Bread	1 slice (1 ounce)
Chapatti (small, 6 inches across)	1
Cornbread (1 ¾-inch cube)	1 (1.5 ounces)
English muffin	½
Hot dog bun or hamburger bun	½ (1 ounce)
Pancake (4 inches across, ¼ in thick)	1
Pita (6 inches across)	½
Roll (plain, small)	1 (1 ounce)
Stuffing, bread	⅓ cup
Taco shell (5 inches across)	2
Tortilla (corn or flour, 6 inches across)	1
Waffle (4-inch square or 4 inches across)	1
Crackers (whole wheat, lower fat or crisp breads)	2-5 (¾ ounce)
Graham cracker (2.5-inch square)	3
Melba toast (about 2-inch by 4-inch piece)	4 pieces
Oyster crackers	20
Popcorn (no fat added, or lower fat)	3 cups
Pretzels	¾ ounce
Rice cakes (4 inches across)	2

Cereals & Grains: Each serving has 15 grams of carbohydrate, 0-3 grams of protein, 0-1 gram of fat and 80 calories.

Starch: Cereals & Grains	Serving Size
Barley (cooked)	⅓ cup
Bran (dry)	
Oat	¼ cup
Wheat	½ cup
Bulgur (cooked)	½ cup
Cereals	
Bran	½ cup
Cooked oats, oatmeal,	1 ½ cups
Shredded wheat (plain)	¾ cup
Couscous	⅓ cup
Granola (low-fat or regular)	¼ cup
Grits (cooked)	½ cup
Millet (cooked)	⅓ cup
Muesli	¼ cup
Pasta (cooked)	⅓ cup
Polenta (cooked)	⅓ cup
Quinoa (cooked)	⅓ cup
Rice (white or brown, cooked)	⅓ cup
Tabbouleh (tabouli, prepared)	½ cup
Wheat germ (dry)	3 tablespoons

Starchy Vegetables: Each serving has 15 grams of carbohydrate and about 80 calories.

Starch: Starchy Vegetables	Serving Size
Corn	½ cup
Corn on the cob (large)	½ cob (5 ounces)
Hominy (canned)	¾ cup
Mixed vegetables with corn, peas or pasta	1 cup
Parsnips	½ cup
Peas (green)	½ cup
Plantain (ripe)	⅓ cup
Potato	
Baked (with skin)	¼ of large (3 ounces)
Boiled (all kinds)	½ cup or ½ medium (3 ounces)
Mashed (with milk and fat)	½ cup
French fried (oven-baked)	1 cup (2 ounces)
Pumpkin (canned, no sugar added)	1 cup
Spaghetti or pasta sauce	½ cup
Squash (winter, acorn or butternut)	1 cup
Succotash	½ cup
Yam, sweet potato (plain)	½ cup

Fats

Unsaturated Fats: One serving contains 5 grams of fat and about 45 calories.

Fat	Serving Size
Avocado (medium)	2 tablespoons (1 ounce)
Mayonnaise (reduced-fat)	1 tablespoon
Natural nut butters (<i>no added oils</i> ; almond, cashew and smooth or crunchy peanut)	1 ½ teaspoon
Nuts	
Almonds	6 nuts
Brazil	2 nuts
Cashews	6 nuts
Filberts (hazelnuts)	5 nuts
Macadamia	3 nuts
Mixed (50% peanuts)	6 nuts
Peanuts	10 nuts
Pecans	4 halves
Pine nuts	1 tablespoon
Pistachios	16 nuts
Walnuts (English)	4 halves
Oil (cottonseed, flaxseed, grape seed, olive or peanut)	1 teaspoon
Olives	
Black (ripe)	8 large
Green (stuffed)	10 large
Salad dressing	2 tablespoons
Seed (whole flaxseed, pumpkin, sunflower or sesame)	1 tablespoon
Tahini or sesame paste	2 teaspoons

Combination Foods

Food	Serving Size	Carbohydrates (grams)	Fat (grams)	Protein (grams)	Calories
Baked beans	½ cup	15	0-3	7	90
Beans (cooked, black, garbanzo, kidney, lima, navy, pinto or white)	½ cup	15	0-3	7	90
Lentils (cooked, brown, green or yellow)	½ cup	15	0-3	7	90
Peas (cooked, black-eyed, split)	½ cup	15	0-3	7	90
Refried beans (canned, fat-free)	½ cup	15	0-3	7	90
Hummus	⅓ cup	15	8	7	160
Edamame	½ cup	6	0-3	7	80
Nuts, seeds and nut butters	1 serving	0	5	0-4	45-60
Soy nuts	¾ ounce	6	4-7	7	100
Soy-based beef, sausage crumbles, chicken nuggets or sausage patty	1.5-2 ounces	6	4-7	7	115
Meatless burger (vegetable, starch based)	1 patty (2.5 ounces)	15	3-6	14	180
Cheese with 4-7 grams of fat per serving (feta, mozzarella, pasteurized process spread, reduced-fat, ricotta or string)	1 ounce	0	4-7	7	75
Milk (fat-free, low-fat or 1%)	8 ounces	12	0-3	8	100
Yogurt (plain or flavored with an artificial sweetener)	⅔ cup (6 ounces)	12	0-3	8	100
Yogurt (Greek, low-fat)	6 ounces	7	0	15	90
Soy milk (light)	8 ounces	15	2	8	90

The Importance of Fluid

Goal: Minimum of 64 ounces of fluid each day.

On average, an adult's body weight is 55–75% water. Fluids (especially water) serve many important functions. They help eliminate waste, transport nutrients to the body, maintain blood pressure and regulate body temperature. All non-carbonated, sugar-free liquids (not just water) count as fluid. This includes protein supplements, sugar-free flavored waters, sugar-free gelatin and sugar-free popsicles. Ideally, about half your daily fluid should come from water.

Alcohol: A Source of Liquid Calories

Alcohol isn't necessary to sustain human life and doesn't provide nutrients to the body. But it still provides calories.

- **First 12 months** – Avoid alcohol during your first 12 months after surgery; don't consume liquid calories (other than protein supplements and low-fat milk) after weight loss surgery, as liquids don't provide a sense of satiety
- **After 12 months** – If you wish, reintroduce alcohol in moderate amounts; frequent alcohol consumption can lead to ulcers and weight regain; your tolerance to alcohol will be greatly decreased after surgery, so take care
- **Servings** – Women should limit themselves to one drink (serving) or less per day, and men should limit themselves to two drinks (servings) or less per day; a serving is about five fluid ounces of wine, one and a half ounces of distilled spirits (like vodka, rum, gin or whiskey), 12 ounces of beer or one ounce of sake; each serving has about 100 calories; one serving of beer also has 15 grams of carbohydrate; mixed drinks have more calories and sugar



Guidelines for Success After Surgery

These guidelines are designed to keep you safe after surgery, maintain your nutritional and overall health and prevent future weight regain.

1. Foods and beverages – Choose low-fat, sugar-free and no-sugar-added foods
2. Fluids – Drink between (not with) meals; stop drinking 30 minutes before meals; don't drink during meals; don't drink for at least 30 minutes after meals to feel full longer and avoid overstuffing the pouch
3. Meals – Eat three each day; don't skip meals or snack and graze between them
4. Protein – Eat protein first at each meal; eat a non-starchy vegetable second; if you're still hungry, have a serving of fruit or starch
5. Chewing – Chew food very well (to the consistency of toothpaste) before swallowing; chew food at least 20-30 times
6. Meal length – Eat meals over 20-30 minutes; eating too quickly will cause discomfort
7. Caffeine and coffee (<i>Limit</i>) – Caffeine is a diuretic and can be dehydrating in too large an amount; drinking large amounts of coffee can produce an ulcer, so limit yourself to two cups combined of coffee or caffeinated black tea
8. Carbonated beverages (<i>Avoid</i>) – Don't drink regular soda, diet soda or other carbonated beverages; they cause excess gas and reflux, and may stretch the pouch
9. Straws (<i>Limit</i>) – Drinking through straws can make you drink too quickly, causing discomfort in the pouch and introducing air that creates excess gas; avoid straws until you're comfortable regulating how quickly to drink
10. Gum (<i>Avoid</i>) – Don't chew gum. If you swallow the gum, it could block the passage of food or fluid through your pouch
11. Alcohol (<i>Avoid at least one year</i>) – Alcohol is full of excess calories and may cause ulcers if consumed in excess; it's okay to take communion with wine after surgery
12. Vitamins and minerals – Take them as directed by your bariatric team for life

Preparing for Surgery

Get started preparing for surgery today. Making just a few of these suggested changes eases the transition to new eating patterns after surgery.

1. Multivitamin – Start taking a multivitamin plus iron <i>and</i> calcium, and vitamin D supplements before surgery; this will help you prepare for taking vitamins after surgery and improve your nutritional health
2. Fluids – Practice not drinking fluids with your meals
3. Chewing – Take small bites and chew very well; use small plates and utensils and practice eating from them
4. Caffeine – Reduce your caffeine intake, but slowly to avoid harsh withdrawal symptoms
5. Carbonated beverages – Reduce or give up carbonated beverages; try to get down to only one carbonated beverage per day before starting the preoperative diet, once you start the preoperative diet, you're no longer allowed to have carbonated beverages
6. Beverage container – Carry a beverage container with you to get in the habit of drinking fluid throughout the day; don't chug fluids, and practice taking small, frequent sips
7. Triggers – Identify your trigger foods, which are different for everyone; they're the foods you turn to for cravings, stress, boredom, etc.; think about ways to handle your triggers better after surgery
8. Fruits, vegetables and whole grains – Improve your overall health for surgery by eating fruits, vegetables and whole grains; aim to have one to two cups of fruit, two to three cups of vegetables and three servings of whole grains daily
9. Meals – Practice eating three meals each day; planning meals ahead of time is the easiest way to change habits; identify ways to avoid skipping meals or grazing between meals
10. Food diary – Keep a food record to identify ways to improve your current diet and prepare for after-surgery changes; research shows people who write down what they eat and drink lose more weight; after surgery, a food record helps you keep track of how much protein and fluid you're consuming daily
11. Shopping – Buy products you'll need for the first couple weeks after surgery

Portions After Weight Loss Surgery

Practicing portion control early on after surgery helps you avoid the discomfort of eating too much. Continue monitoring portions to prevent large ones from sneaking back up on you. Eating portions larger than your pouch can hold stretches it and give you more calories than you need.

Tools you'll need to help monitor portions:

- Measuring cups and spoons
- Food scale
- Six-inch plates and small bowls
- Small utensils, such as baby spoons and shrimp forks

How much you can eat depends on the volume of food that's comfortable for you, how well you tolerate certain textures and the length of time since your surgery. At first, the pouch usually holds only one to two ounces of food per meal. Over several months, the pouch begins to hold about four to six ounces. Long term (a year or more after surgery) the pouch tends to hold four to 12 ounces. Everyone's eventual pouch volume is different, and you don't want to speed along this process by overeating.

Measuring Portion Sizes

Measurement	Equivalent
4 ounces	½ cup 8 tablespoons 4 fluid ounces 112 grams
8 ounces	1 cup 16 tablespoons 8 fluid ounces 224 grams
1 tablespoon	3 teaspoons ½ ounce
1 ounce of meat	2 tablespoons
1 fluid ounce	2 tablespoons ⅓ cup

Estimating Portion Sizes

Sometimes we need visual cues to help us control portions. Below are some examples.

Food	Estimated Size
1 ounce of meat	Matchbox
3 ounces of meat	Deck of cards or bar of soap
4 ounces of meat	A woman's palm
3-ounce fish filet	Checkbook
1 ounce of cheese	4 dice
Medium potato	Computer mouse
2 tablespoons of peanut butter	Ping-pong ball
1 cup pasta	Tennis ball
Medium apple	Tennis ball

Food Labels

Reading food labels after weight loss surgery helps you choose foods that contain enough protein, the right carbohydrates and not too much fat. Food labels have four types of health information to help you make healthy choices.

Nutrition Facts Labels

All packaged foods have a nutrition facts label, which can be located just about anywhere on the product. This label provides information about the calories, fat, protein, carbohydrates, vitamins, minerals, sodium and fiber in food. You'll need to interpret these labels to make healthy food choices.

What to look for on nutrition facts labels after weight loss surgery:

- 1. Servings** - Located at the top of the label, serving size shows the amount of product that should be eaten at one time (although not all manufacturer's serving sizes are appropriate after surgery); nutrient information on the label is based on serving size, so if you eat or drink half a serving, reduce the nutrient content (including calories) by half; servings per container (located under serving size) is the number of servings in the package
- 2. Calories** - This section shows the number of calories (energy) in one serving; if a food has a lot of calories, it's important to know if they're from protein, carbohydrates or fat

3. **Total fat** – Under the calories section is the total fat grams in one serving; some labels have subcategories of saturated fat, trans fat, monounsaturated fat and polyunsaturated fat with grams of each; refer to the Nutrition Information section of this guide to identify low-fat foods
4. **Total carbohydrates** – Below sodium content, you'll find the total grams of carbohydrates (including combined amount of starch, sugar, sugar alcohols and fiber) in a serving
 - **Dietary fiber** is a subcategory of carbohydrates that tells you how many grams of both insoluble and soluble fiber sources are in a serving, and some products list the grams for each; a high-fiber food has more than three grams of dietary fiber
 - **Sugars** is a subcategory that shows how many grams of simple sugar (both natural and added) are in a serving; use the Sugar Guidelines section to determine if the food is a good choice
 - **Sugar alcohols** lists the number of sugar-alcohol grams in a serving; this is important to note if you're sensitive to sugar alcohols
5. **Protein** – Under the carbohydrate information you'll find the protein grams in one serving; check this on all products to track your protein intake; high-protein foods and beverages have more than 15 grams of protein per serving

After weight loss surgery, you don't need to pay attention to the "% Daily Value" section of the label. It shows percentages that individual nutrients provide to the total needed in a 2,000-calorie diet. After surgery, you won't likely eat close to 2,000 calories per day, so these numbers aren't important in making food choices.

Ingredients

Find the ingredient section on all foods, which is the "recipe". Ingredients are listed from greatest to least content. It's a good place to determine if protein, carbohydrates or fat are one of the main ingredients. It also tells you whether the product contains added sugars.

Post-operative Dietary Goals

How to eat around your plate after surgery:

1. **Protein first** – Start with a lean source of protein first at each meal, choosing foods from the Proteins list; each section of the diet progression also shows your best protein sources, and at least half of your meal should be protein.

2. **Non-starchy vegetables second** – Eat non-starchy vegetables second, selecting foods from the Non-starchy Vegetable list.
3. **Small serving of fruit third** – Choose an item from the Fruit list, and be sure it doesn't contain added sugars.
4. **Starches last** – Save starches for last at meals (including starchy vegetables), and choose them from the Breads, Crackers & Snack Food, Cereal & Grains, or Starchy Vegetable lists.

The most important nutrient to eat first at your meals is a source of protein. This helps you reach your protein goal and keeps you full longer. Eating a non-starchy vegetable second helps fill you up with nutritious fiber, vitamins and minerals without adding a lot of calories. Avoid eating large portions of fruit (or only fruit) at a meal because fruits aren't filling and can affect your blood sugar. Eating starches that don't provide long-term satiety at a meal may be poorly tolerated.

Protein Goals

To prevent protein malnutrition, you must meet a minimum protein goal each day.

Daily Minimum Protein Goal
Women – 60 grams
Men – 80 grams

Eating protein first at meals helps you reach your goals.

For the first several months after surgery, use a protein supplement between meals to reach your protein goal. Once you're consistently able to consume all your protein from food alone, you'll no longer need protein supplements. Aim to eat about 20 grams of protein at each meal once you're on regular-consistency foods and can tolerate about four ounces of food per meal.

If you don't eat enough protein after weight loss surgery, you can develop protein malnutrition. Symptoms include fatigue, hair loss, decreased hair pigmentation, loss of muscle strength, fluid retention (especially in your lower legs) and reduced ability to fight infections.

Good protein supplements use whey, soy or egg (albumin) as their main ingredient. Ensure[®], Ensure Plus[®], Boost[®], Boost High Protein[®], Glucerna[®], Kellogg's[®] Special K Protein Shakes or Protein Waters, Slim Fast[®], Slim Fast High Protein[®] and Slim Fast Optima[®] products **aren't** appropriate protein supplements for weight loss surgery patients because they're often high in carbohydrates, sugar or fat and low in protein.

Using the supplement facts label, choose protein supplements that meet the following guidelines per serving:

- 200 calories or less
- 15-25 grams of protein or more
- Less than 10-20 grams of total carbohydrate
- Less than 5 grams of fat
- Less than 5 grams of sugar

Choosing High Protein Shakes & Powders

In the immediate post-operative months, you'll use protein shakes and powders heavily. They help promote wound healing and minimize loss of lean muscle mass. Liquid protein supplements like shakes and powders are the easiest to take in right after surgery. After the first few weeks, you can incorporate traditional proteins and foods into your diet. Many people continue using protein shakes as a convenient source of protein and nutrition. They're great for a quick and easy breakfast or snack, and they're a backup plan when you're running late and have no time for a regular meal.

Many shakes are available on the market. Some claim to be high protein but contain only moderate or low protein grams and can be high in sugar and calories. Be sure to read the label.

Brand	Calories	Protein (grams)	Sugar (grams)
Premier Protein Drink	160	30	1
Ensure Max Protein Drink	150	30	1
Fairlife High Protein Drink	150	30	2
Bariatric Fusion Powder	150	27	<1
Quest Protein Powder	100	20	0
Unjury Powder	100	21	3
Isopure Powder	105	25	0
Genepro Powder	59	30	0
Orgain Protein Powder	160	21	1
Orgain Protein Drink	140	20	0
Protein2o Water	70	15	0
Celebrate CLR	80	20	0
Celebrate Protein shot	70	15	0
Gelatein	80	20	0

Enhancing Protein Shakes & Powders

To make shakes and protein sources tastier and more enjoyable, stock up on a few flavor enhancers. Your tastes may change after surgery, so have a variety of brands on hand. Select chocolate, vanilla, chicken soup and unflavored protein powders as your basic flavors. Buy different flavors of sugar-free syrups and nonfat, plain yogurt to add to your shakes.

Stock up on herbs and spices to flavor broths and low-fat cream soups; seasoning blends are available, such as Italian, taco and Creole; choose spices like mild curry powder, thyme, basil, rosemary and cumin. **For the first three months after surgery, avoid spicy seasonings like cayenne, Tabasco or hot sauce; it's too hard on the pouch. Also avoid tomatoes and tomato products during this period.**

For protein shakes and powders:

- Vanilla + sugar-free (SF) caramel
- Vanilla + SF white chocolate mocha
- Vanilla + SF orange = creamsicle
- Vanilla + SF pumpkin spice
- Chocolate + SF raspberry
- Chocolate + SF coconut or chocolate + PB 2 = "chocolate peanut butter cup"
- Chocolate and SF peppermint
- Unflavored protein powered + tomato soup + basil
- Unflavored protein powered + squash soup + mild curry powder
- Unflavored protein powered + chicken broth + Creole seasoning

Fluid Goals

Getting enough fluid is very important after surgery. Rapid weight loss and a protein-rich diet makes your kidneys work harder to eliminate waste. Drinking plenty of fluid helps your body flush out these waste products and helps prevent dehydration and poor kidney function.

Drink a minimum of 64 ounces of fluid daily. All non-carbonated, sugar-free liquids (not just water) count as fluid. This includes liquid protein supplements, sugar-free flavored waters, sugar-free gelatin and sugar-free popsicles. Ideally, about half your daily fluid should come from water.

Tips to avoid dehydration:

- Don't rely on thirst to tell yourself to drink; if you're thirsty, you're already mildly dehydrated
- Carry a beverage container with you at all times and take small, frequent sips

- Aim to drink four to six ounces an hour for the first month after surgery; this amount helps you reach your total fluid goal; a couple months after surgery, it becomes easier to drink a greater volume of fluid in one sitting, which is normal
- Drink water before, during and after exercise
- Limit caffeine, as it acts as a diuretic and is dehydrating

Be aware of how you feel and be knowledgeable about dehydration symptoms. If you feel dehydrated, immediately increase your fluid intake. *This may mean replacing food with liquids until hydration is restored.* If symptoms last longer than 24 hours or become severe, call your physician. If not corrected early, dehydration can be a serious health emergency.

Mild symptoms of dehydration include: dry mouth, lips or tongue; thirst; fatigue; headache; dry skin; constipation; irritability; nausea; and urine that is both dark yellow in color and produced in very small amounts. Severe symptoms of dehydration include dizziness, flushed and clammy skin and elevated temperature. To prevent dehydration, drink fluid slowly and consistently throughout the day.

Diet Progression

The diet progression is designed to prepare you for a safe surgery and help you avoid major discomfort or physical harm after surgery. You need to progress appropriately with your diet. Don't stay behind in a stage and don't advance your diet before you're advised to do so. Serious consequences may result.

Rules During Diet Progression

- Eat three meals a day and one to two snacks as needed
- Always stop eating or drinking as soon as you feel satisfied
- Meals should last 20-30 minutes; practice mindfulness
- Don't drink with your meals
- Always eat protein first at meals
- Don't drink liquid calories except for low-fat milk and protein supplements
- Take multivitamins daily
- Remember to advance your diet slowly
- Always get 64 ounces of fluids and 60-80 grams of protein during ALL stages
- Avoid acidic foods, including tomatoes, tomato products, vegetable juices, oranges, grapefruits, fruit juices, etc.

Tips for Adding Foods Back to Your Diet

- Add foods back one at a time to test your tolerance
- Your first meals should only be a few bites; eat until your first sign(s) of satisfaction or fullness
- Moist foods (especially meats) are better tolerated than dry foods; use moist cooking methods whenever possible, such as baking, poaching, steaming, boiling and slow-cooking

Pre-operative Diet

Start: 7-14 days before surgery

Duration: 7-14 days

Diet:

- Liquid protein supplements
- Sugar-free, non-carbonated liquids
- Sugar-free gelatin or pudding
- Sugar-free popsicles
- Clear broth or bouillon
- Reduced-fat or fat-free strained cream soups
- Low-fat, sugar-free yogurt

Goals:

- **Women:** Minimum of 60 grams of protein daily
- **Men:** Minimum of 80 grams of protein daily
- **Both:** Minimum 64 ounces of fluid daily

Day of Surgery

Start: Midnight the day of your surgery

Duration: Approximately 12-24 hours

Diet: Nothing by mouth (no food or fluids); follow instructions given at your consenting visit regarding medications

In the Hospital, Post-Surgery

Start: After surgery

- Clear liquids only

Stage 1: Full Liquids

Start: Day after surgery (once cleared by our doctors to move on to protein drinks)

Duration: Two weeks

Goals:

- Drink four to six ounces of fluid per hour
- Aim for a total of 64 ounces of fluid daily
- Continue with a goal of 60-80 grams of protein daily
- Keep everything at room temperature

Add the following foods and beverages to your diet:

- Clear broth or bouillon (room temperature)
- Sugar-free gelatin or pudding
- Sugar-free flavored beverages (Crystal Light, sugar-free Kool-Aid, Propel, PowerAde Zero, Vitamin Water, etc.)
- Protein supplements (water-based or clear) may be easier to digest at first, while milk-based supplements may feel heavy and uncomfortable
- Milk (1%, skim or any unsweetened, nondairy milk)
- Protein shakes
- Reduced-fat or fat-free strained cream soups
- Low-fat, sugar-free yogurt

Sample Meal Plan	
<p>Morning:</p> <ul style="list-style-type: none">• 2 oz. light Greek yogurt• Protein shake made with 8 oz. skim milk <p>Afternoon:</p> <ul style="list-style-type: none">• 1-2 oz. strained, fat-free cream soup• Protein drink with 8 oz. skim milk• Beef broth with unflavored protein powder <p>Evening:</p> <ul style="list-style-type: none">• 1-2 oz. strained, fat-free cream soup• 1-2 oz. light Greek yogurt• Protein drink made with 8 oz. skim milk	<p>Useful Tips:</p> <ul style="list-style-type: none">• Drink only what's comfortable for you• Drink plain water between meals; since this stage is all liquid, you don't need to wait 30 minutes before or after meals before drinking water• Don't worry if you can't meet protein goals consistently yet; just make fluids your priority• Notice the pressure sensation in the middle of your chest around your diaphragm; this is likely your new full feeling

Stage 2: Pureed

Start: Day 14 (two weeks) after surgery

Duration: Two weeks

Goals:

- Drink four to six ounces of fluid per hour; aim for a total of 64 ounces of fluid daily
- Aim to meet protein goals with a combination of liquid supplements and food
- Aim for about two to four ounces of food per meal; don't eat more than four ounces per meal
- Only consume what's comfortable for you, which may only be one or two bites

Add the following foods to your diet:

- Scrambled eggs or egg whites
- Thinned cream of wheat made with milk
- Applesauce or baby foods
- Cottage cheese (low-fat)
- Nonfat Greek yogurt (no chunks)
- Pureed beans or lentils (includes low-fat, refried beans)
- Ricotta cheese
- Sugar-free pudding
- Pureed soups (choose broth-based soups without meat)
- Pureed cooked vegetables, peeled (no skin or seeds)
- Pureed fruit, peeled (no skin, seeds or citrus)

Useful Tip: How to Puree Foods

Pureed foods should be the consistency of applesauce or thin mashed potatoes. To puree foods, place chopped food into a blender or food processor. Add enough liquid to cover the blade(s). Blend until the food is smooth and free of chunks. Use broth or low-fat milk instead of water to puree because water dilutes the flavor. Use herbs and spices for flavor. Freeze pureed food in an ice-cube tray; pop-out and store in an airtight resealable bag for convenience. One cube is equal to two ounces. Don't puree meat.

Sample Meal Plan (these are the maximum portions, but only eat what's comfortable to you)

<p>Meal 1:</p> <ul style="list-style-type: none">• 4 tbsp. Greek yogurt (no chunks)• 4 tbsp. no-sugar-added applesauce <p>Meal 2:</p> <ul style="list-style-type: none">• 4 tbsp. cottage cheese, low-fat• 4 tbsp. pureed vegetable soup <p>Meal 3:</p> <ul style="list-style-type: none">• 8 tbsp. refried beans, low-fat	<p>Meal 1:</p> <ul style="list-style-type: none">• 4-8 tbsp. plain Greek yogurt mixed with flavored protein powder <p>Meal 2:</p> <ul style="list-style-type: none">• 4 tbsp. ricotta cheese with salt & pepper• 4 tbsp. pureed squash <p>Meal 3:</p> <ul style="list-style-type: none">• 8 tbsp. pureed soup, mixed with half-one scoop unflavored protein powder
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Stage 3: Mechanical Soft

Start: Day 28 (four weeks) after surgery

Duration: Two weeks

Goals:

- Drink four to six ounces of fluid per hour; aim for a total of 64 ounces of fluid daily
- Aim to meet protein goals with a combination of liquid protein supplements and food
- Aim for about two to four ounces of food per meal; don't eat more than four ounces per meal; only consume the food amount that's comfortable for you, which may only be one or two bites
- Continue to chew foods to the consistency of applesauce (30 times with each bite)
- Meals should last 20-30 minutes; practice mindfulness

Add the following foods to your diet:

- Fish
- Ground meat (lean)
- Low-fat, canned chicken or fish
- Tofu
- Soups (regular consistency)
- Avocado
- Cheese (reduced fat)
- Canned fruits (in own juice or water)
- Soft, fresh fruits (as tolerated)
- Soft-cooked vegetables (as tolerated)
- Potatoes (without skins)
- Cooked cereals with skim milk
- Beans
- Toasted, low-fat breads
- Deli-shaved meats (watch sodium)

Sample Meal Plan (these are the maximum portions, but only eat what's comfortable to you)

<p>Meal 1:</p> <p>4 tbsp. cottage cheese</p> <p>4 tbsp. no-sugar-added applesauce</p> <p>Meal 2:</p> <p>1 egg scrambled</p> <p>2-3 oz. canned chicken</p> <p>Meal 3:</p> <p>4 tbsp. refried beans, low-fat</p> <p>2 tbsp. shredded cheese, melted</p>	<p>Meal 1:</p> <p>1 egg poached or scrambled</p> <p>2 tbsp. pureed peaches (no added sugar)</p> <p>Meal 2:</p> <p>4 tbsp. ricotta cheese with salt & pepper</p> <p>¼ avocado, mashed</p> <p>Meal 3:</p> <p>1 oz. tofu</p> <p>4 tbsp. pureed vegetable soup</p>
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Useful Tip - How to Make Meats Moist:

Meats are dense sources of protein that may be difficult to digest at first. This is because the pouch produces little to no stomach acid. To digest meats, cook them using a moist cooking method and chew them very well. Moist cooking methods include poaching, simmering, boiling, stewing, blanching, braising and steaming. Slow cookers are an excellent tool for retaining moisture. Baking, roasting and rotisserie cooking are considered dry cooking methods, but meats cooked by these methods may still contain enough moisture to chew to a toothpaste-like consistency and digest well. Other dry cooking methods like grilling, broiling and barbecuing are often considered healthy, low-fat cooking methods but tend to make meats too dry to comfortably digest early after surgery. Trim fats from meats, and always avoid deep-frying.

Stage 4: Regular diet

Start: Day 42 (six weeks) after surgery

Duration: Lifelong

Goals:

- Drink four to six ounces of fluid per hour; aim for a total of 64 ounces of fluid daily
- Aim to meet protein goals with a combination of liquid supplements and food
- Aim for about a half to one cup of food at meals; eat the amount that's comfortable for you
- Continue chewing foods to the consistency of applesauce (30 times with each bite)
- Meals should last 20-30 minutes; practice mindfulness
- Add foods in slowly, one at a time to test for tolerance

Use caution with the following foods:

<ul style="list-style-type: none"> • Corn • Peas • Asparagus • Pineapple • Celery • Shrimp • Oranges 	<ul style="list-style-type: none"> • Artichoke • Broccoli • Cauliflower • Rhubarb • Nuts, seeds • Dry meat • Grapefruit 	<ul style="list-style-type: none"> • Untoasted bread • Pasta • Peanut butter • Coconut • Dried fruit • Steak
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After completing the diet progression, continue adding new foods and beverages to your diet. Foods and beverages must continue to be low-fat, sugar-free, with no added sugar. Continue to eat high-protein foods first at meals.

Digestive Difficulties After Surgery

Dumping Syndrome

Dumping syndrome occurs when foods leave the stomach and enter the intestine too quickly, especially foods that are high in simple sugars or fat. Once food is in your intestine, the intestine pulls water from other parts of your body to dilute the concentration of sugar or fat in; this process can occur while you're eating within five to 10 minutes of finishing a meal and causes numerous symptoms.

Early signs of dumping syndrome are abdominal fullness, cramping and nausea. You may feel warm, dizzy, weak or faint. You may also experience a rapid heartbeat and break out in a cold sweat. Often dumping syndrome is accompanied by diarrhea, but not always. Late signs of dumping syndrome are very much like having low blood sugar and can occur one to three hours after the original dumping episode. You may feel shaky, weak or nauseous.

To prevent dumping syndrome, avoid eating too much simple sugar or fat at a meal. Eat slowly. People tolerate different amounts of simple sugar and fat, so you'll need to learn what your limits are by paying attention to the nutrient content of your meal (see guidelines).

Sugar Guidelines to Prevent Dumping Syndrome

- **Step 1:** Check the product's nutrition facts label; if it has less than five grams of sugar, it's likely to be a well-tolerated food or beverage
- **Step 2:** If the product has more than five grams of sugar, read the ingredients; if one of the first five ingredients is an added simple sugar (see list), avoid this product

Other Names for Sugar on the Label	
▪ Cane sugar	▪ Malt
▪ High fructose corn syrup	▪ Brown sugar
▪ Molasses	▪ Confectioner's sugar
▪ Table sugar	▪ Maltose
▪ Sugar in the raw	▪ Sucrose
▪ Maple syrup	▪ Dextrose

Foods and beverages that naturally contain sugar, such as milk, fruit and starchy vegetables, are typically well tolerated. But some people experience dumping syndrome if the portions are too large. Fruit juice should be avoided or very limited (dilute 50/50 with water).

Nausea & Vomiting

One of the main causes of nausea and vomiting after surgery is not following the nutrition guidelines. If you're having nausea or vomiting, answer these questions and make any changes needed to avoid further pain and discomfort:

1. How long am I taking to eat and drink?
2. Am I eating or drinking slowly enough?
3. Did I drink fluids with my meal (or too soon before or after the meal)?
4. Am I eating more than I should?
5. Do I continue to eat after I feel satisfied?
6. Am I chewing solid foods until they resemble a pureed consistency?
7. Did I lie down too soon after my meal?
8. Did I eat hard-to-digest foods like tough meat or untoasted bread products?
9. Did I eat foods from the next stage of the menu plan before being cleared by the physician to do so?

If you vomit, don't eat solid foods. Instead, return to sugar-free, clear liquids (stage 1). If you answered "yes" to any of the questions, consume liquids until solid food is once again comfortable to eat. Repeated vomiting may cause stress on the new stomach and result in irritation — or even worse — rupture the staple line. If you answered "no" to all the questions and vomiting persists throughout the day and isn't improved with diet changes, call our office and speak to a nurse.

Food Intolerances & Taste Changes

Some foods and beverages may not be tolerated after weight loss surgery. Foods may make you nauseous, or they may taste or smell differently after surgery. If a healthy, favorite food tastes different or doesn't sit well after surgery but you want to add it back to your diet, allow another week or two to go by and try it again. Common food intolerances are red meats, untoasted breads, pasta and lactose. Common taste changes include meats tasting metallic and sweet foods or beverages tasting much too sweet. Some people even feel that water tastes sweet after surgery.

Diarrhea

Diarrhea after surgery (RYGB) is related to dumping syndrome or in some cases, the development of lactose intolerance. See the guidelines for preventing dumping syndrome. If diarrhea is caused by lactose intolerance, try lactose-free milk (Fairlife), soy milk or a lactase-enzyme supplement (Lactaid®).

Constipation

Many factors can contribute to constipation after surgery, including narcotics use, anesthesia, lack of dietary fiber, dehydration, high protein intake and high doses of minerals (iron and calcium). To help your GI tract adjust to the high doses of minerals, start your bariatric-specific multivitamin with iron and calcium one month before surgery. Consider a probiotic supplement like Align®, and make sure to meet your daily goal of 64 ounces of water. Make sure you're moving after surgery; you should be up and walking as much as possible. As you progress in your diet, add in more fruits, vegetables and whole grains. Limit bran, whole grain bread, raw fruits and vegetables until diet progression allows.

Dehydration

You can become dehydrated from inadequate fluid intake or excessive losses from vomiting or diarrhea. Drink at least 64 ounces of fluid daily. Follow nausea and vomiting guidelines.

Protein Deficiency

Not getting enough daily protein can cause you to lose too much muscle. Eat protein first at all meals. It's important to get a minimum of 60-80 grams of protein daily (see the supplement guide).

Vitamin & Mineral Deficiency

Always take a bariatric multivitamin. This supplement is required for life. A general multivitamin isn't enough to meet your specialized needs. Take a chewable bariatric vitamin for the first six months after surgery. At that time, you may switch to a capsule.

Blockage at the Stomach Opening

Many factors can contribute to a blockage, including progressing too quickly through the diet stages, not chewing food thoroughly or eating too quickly. Be sure to chew food 30 times with each bite.

Stretching of the Pouch

Continuing to eat past the point of fullness can cause the pouch to stretch out. Be sure to practice mindful eating. Set your fork down between bites, separate liquids from solids, don't eat while distracted and take 30 minutes to consume meals.

Weight Gain or Plateau

Weight loss isn't always a linear process. Plateaus and even periods of weight gain may happen. Be sure to record your food to get an accurate idea of your daily intake. Avoid snacking, caloric beverages, fast food, high-fat and high-calorie foods. Exercise regularly. Reach out to your team if you need support.

Understanding Vitamins & Minerals After Surgery

We all need vitamins and minerals, but after weight loss surgery you need more than the average person. Here's why:

- Stomach volume is dramatically decreased, and so is the amount of food you can eat; this means you can't consume enough healthy food to provide your body with the vitamins and minerals it needs
- Your GI tract functions differently after surgery; your new stomach doesn't produce strong stomach acid, which breaks down protein and converts minerals into a form that can be absorbed; take the correct minerals so you're not relying on your stomach acid to do the work; certain vitamins require helping factors found in the stomach to trigger absorption, but after surgery these factors aren't present
- The route vitamins and minerals take through your body changes; they bypass the area of the intestine where most absorption takes place
- Vitamin D helps your body absorb calcium; take at least 3,000 IU (international units) daily, and more may be needed if your 25-hydroxy vitamin D level doesn't stay above 30 ng/mL; you'll get vitamin D from both your multivitamin and calcium citrate supplement, but an additional 1,000 IU of vitamin D₃ may be needed to reach the 3,000 IU daily goal
- Take vitamin B12 orally daily to help maintain healthy nerve cells and blood cells; after surgery, you lose the ability for your body to recognize most vitamin B12 for absorption
- Additional vitamin and mineral supplements may be required after surgery if these baseline amounts aren't sufficient; the type and dose will be determined by your health care team

SUPPLEMENT GUIDELINES:

- Take iron to prevent anemia; most patients need 45-60 mg of iron daily, which can be taken alone or in a multivitamin
- Take calcium citrate plus vitamin D supplements daily; this form of calcium doesn't require strong stomach acid, making it ideal to use after weight loss surgery; take 1,800-2,400 mg of calcium citrate daily; no more than 600 mg is absorbed at a time, so plan to take calcium three to four times daily

Summary of Supplement Recommendations:

- **Iron:** 45-60 mg
- **B12:** 350-500 mcg
- **Vitamin D:** 3000 IU
- **Calcium:** 1200-1500 mg (calcium citrate, 500-600 mg two to three times daily, taken at least two hours apart from each other and your multivitamin)

*** You must take a chewable multivitamin for the first six months after surgery. You may switch to a capsule later.

COMPLETE CHEWABLE BARIATRIC MULTIVITAMINS (0-6 months post-op)					
	Servings per Day	Iron Needed	Calcium Needed	Price	
Bariatric Fusion Complete Chewable Multivitamin	4			\$29.99 for 120 capsules	Debbie's Pharmacy BariatricFusion.com Amazon
INCOMPLETE CHEWABLE BARIATRIC MULTIVITAMINS (0-6 months post-op)					
	Servings per Day	Iron Needed	Calcium Needed	Price	
Procare Chewable Multivitamin with Iron	1		✓	\$49.99 for 90 chews	ProcareNow.com Amazon
BariMelts Multivitamin with Iron	2		✓	\$26.99 for 60 melts	BariMelts.com
Bariatric Fusion Soft Chew Multivitamins	2	✓	✓	\$33.99 for 60 chews	BariatricFusion.com Amazon
Celebrate Multi-Complete 60 Chewable Multivitamin with Iron	2		✓	\$24.95 for 60 chews	CelebrateVitamins.com
Celebrate Essential Multi 2 in 1 Chewable Multivitamin with Calcium	4	✓		\$29.95 for 120 chews	
Bariatric Pal Chewable Multivitamin with Iron	1		✓	\$29.99 for 30 capsules	Store.BariatricPal.com
BARIATRIC MULTIVITAMIN CAPSULES (6 months post op +)					
	Servings per Day	Iron Needed	Calcium Needed	Price	
Procare Multivitamin Capsule with Iron	1		✓	\$49.99 for 90 capsules	ProcareNow.com Amazon
Bariatric Fusion Multivitamin with Iron	1		✓	\$19.99 for 30 capsules	BariatricFusion.com Amazon
Celebrate Bariatric Multivitamin	1	✓	✓	\$18.95 for 90 capsules	CelebrateVitamins.com
Celebrate Bariatric Multivitamin with Iron	1		✓	\$19.95 for 60 capsules	CelebrateVitamins.com
Bariatric Pal Multivitamin with Iron	1		✓	\$14.99 for 30 capsules	Store.BariatricPal.com
CALCIUM SUPPLEMENTS					
Bariatric Fusion Calcium Citrate Soft Chews	3			\$22.49 for 60 chews	BariatricFusion.com Amazon
Celebrate Calcium Citrate Soft Chew	3			\$34.95 for 90 chews	CelebrateVitamins.com
IRON SUPPLEMENTS					
Bariatric Fusion Iron Soft Chew with Vitamin C	1			\$29.99 for 60 chews	BariatricFusion.com Amazon
Celebrate Iron with Vitamin C Soft Chews	1			\$14.95 for 30 chews	CelebrateVitamins.com

Dining Out After Weight Loss Surgery

Dining out after weight loss surgery tends to be more inconvenient than convenient. Weeding through all the foods you can't or shouldn't have after surgery is frustrating and an unnecessary temptation. Plus, you'll be eating so little food that it often doesn't make sense to pay high prices for just a bite or two. But at some point, you'll be dining away from home. Follow these tips to help make dining out easier:

1. Check the menu before you get to the restaurant; if you plan what you'll eat before arriving, you won't need to look at the menu and can avoid a lot of temptation
2. Choose a dish from the "healthy" menu; many chain restaurants offer a Weight Watchers® menu, which includes entrees with a lean protein and vegetable side dish
3. Split the meal with a dining companion, since you won't be able to eat a full serving
4. Order a half-size meal, if available
5. Ask for a to-go-box when you order; when the food comes, put away the portion you know you can't eat immediately, and save it for another meal or two later
6. Order a side dish instead of an entrée
7. At buffets, use a salad plate instead of a regular plate
8. Fast food restaurants now offer "healthier" options like salads and wraps (but that doesn't mean they're not loaded with calories)
9. Ask that your meal not be prepared with added butter or sugar
10. Skip the breading on sandwiches and focus on the protein and vegetables

Food Logs

Research shows people who keep a food record lose more weight and keep it off. You can log food using a phone app or on paper. Bring your log with you to every visit, before and after surgery.

Apps are often the most convenient and accurate way to log food. Popular apps for weight loss patients include My Fitness Pal, Baritastic, Lose It, Spark People and Samsung Health.

To keep a written log, write down everything you eat or drink. Describe how the food was prepared or if you added anything. Record amounts of each food type and fluid you consumed. Record protein amounts for each food and count the daily total. Record fluid ounces consumed and record the daily total. At the end of the day, review how well you did. Did you meet your protein and fluid goals? Did you get all your vitamins in? If the answers are "no," think about how you can do better tomorrow. Write down your thoughts. People who write down their goals are more likely to reach them.

Frequently Asked Questions

1. If I'm tolerating foods well in my current diet stage, can I jump ahead to the next stage?

No. The diet progression is designed to allow time for your new stomach to heal and to promote appropriate weight loss. Jumping ahead in your meal plan (unless your doctor or dietitian recommends it) can lead to slowed weight loss or poor food tolerance.

2. Can I use spices and condiments on foods as I add them back into my diet?

Yes. Condiments, herbs and spices are a good way to add flavor if they're used in moderation. Choose low-fat, low-sugar varieties where possible. Spray butter or light spreads are preferred over regular butter. Low-fat or fat-free mayonnaise should be used instead of the full-fat version. Be cautious with overly spicy herbs or condiments for the first six to eight weeks after surgery to avoid stomach irritation. Tomatoes and tomato products aren't permitted in the early post-surgery stages.

3. I can't find a protein drink I like. Can I just try to get protein through my foods?

No. Given the small amount of food your pouch holds immediately after surgery, it's nearly impossible to get enough protein from your three meals a day until three to six months after surgery. If you're having trouble finding a protein drink you can tolerate, refer to the list of options provided by the clinic or call the dietitian for suggestions.

4. I'm sick of how my protein drink tastes. Can I add flavorings to make it taste different?

Yes. Add extracts like peppermint, vanilla, banana or others to your protein drinks as long as they don't add any calories or sugar. Read the label before adding anything to your drink.

5. Do I have to use liquid protein drinks forever?

No. Once you can comfortably consume enough protein from food alone, you won't need liquid protein supplements every day. The time it takes to reach this point is different for everyone. For most people, it's between six months and one year after surgery. Long-term use of protein supplements isn't recommended

because they're "liquid-calories," meaning they provide extra calories without helping you feel full.

6. I can't tolerate meat anymore. What can I do?

It's likely you can't tolerate certain meats or cooking methods. Try meat substitutes, and use moist cooking methods to make meat easier to chew.

7. How many calories should I have each day?

There isn't a standard number of calories you should eat daily. Right after surgery, it's much more important to track the amount of protein and fluid you're consuming. Long term (one or more years after surgery), most people consume about 1,000-1,200 calories per day. Those who participate in athletic training may need more calories and should talk with a dietitian about their needs.

Patient Resources

- American Society for Metabolic and Bariatric Surgery: <https://asmbs.org/>
- American Heart Association
- The Academy of Nutrition and Dietetics
- American Diabetes Association
- Myplate.gov
- Eatgathergo.org
- Bariatriceating.com
- Bariatricmealprep.com
- Mybariatricdietitian.com
- Bariatricbits.com
- Bariatricfoodie.com
- Bariatriccooking.com
- Weight watchers
- *Intuitive Eating Workbook* by Evelyn Tribole
- *The Mindfulness-Based Eating Solution* by Lynn Rossy
- *Choose Your Foods: Food Lists for Weight Management* by the Academy of Nutrition and Dietetics
- *Real Solutions Weight Loss Workbook, 2nd Edition* by Toni Piechota
- The Gastric Sleeve Bariatric Cookbook
- The Complete Bariatric Cookbook and Meal Plan
- Skinny Taste Cookbook Series

This list is provided for educational purposes only. Mercy doesn't endorse any particular service or product.

Readiness Checklist

- Keep a log of food, drinks, portion sizes, time, calories and protein
Log type: _____
- Eat 3 meals daily with 1-2 snacks if needed
- Eat meals about the same time daily
- Eat smaller portion sizes
- Choose low-fat products more often than high-fat, limiting deep fried foods
- Limit sweets/desserts/candy
- Eliminate caffeinated beverages
- Eliminate carbonated beverages
- Drink at least 64 oz of hydrating fluids daily
- Sip drinks slowly
- Eliminate use of straws
- Purchase and start taking chewable bariatric specific multivitamin of choice at least 1 month prior to surgery
- Practice chewing foods 30 times before swallowing (To the consistency of apple sauce)
- No drinking beverages 30 minutes before or after meals
- Practice eating off of smaller dishes
- Have measuring cups/spoons available for after surgery
- Taste and purchase liquid protein supplements for post op diet stages
(Be mindful coffee flavored shakes may contain caffeine)
- Eliminate alcohol
- Increase activity

Grocery List

Protein:

Protein shakes
Protein powder (include unflavored, Genepro or Isopure)
Eggs or egg whites
Beans (if refried, choose fat-free)
Cheese (low-fat)
Cottage cheese (low-fat)
Turkey or chicken (98% fat-free)
Boneless, skinless chicken
Pork tenderloin
Tuna
Halibut, tilapia or cod
Salmon
Seafood (puree shrimp)
Greek yogurt (preferred, nonfat or sugar-free)
Yogurt (nonfat or sugar free)
Milk (skim, 1% or soy)
Lactose-free milk (Fairlife)
Tofu or soy products
No-sugar-added instant breakfast

Grains:

Whole wheat pasta, toast, tortillas or crackers
Whole grain cereal*
Whole grain waffles
English muffin, toasted
Whole wheat pita, toasted
Oatmeal
Cream of wheat
Grits

Healthy Fats:

Avocado
Olive oil
Natural peanut butter or almond butter*
Ground flaxseed
Pumpkin
Spray or tub butter
Light salad dressing

Vegetables:

Carrots
Spinach (if tolerated)
Green beans
Bell peppers
Cucumbers
Cauliflower*
Broccoli*
Zucchini, squash*
Cabbage*
Brussels sprouts*
Beets
Artichokes
Mushrooms

Fruit:

Peaches (peeled or canned in water)
Pears (peeled or canned in water)
Apricots (peeled)
Mango, papaya or guava
Blueberries
Strawberries
Banana
Cantaloupe*
Apple (peeled)*
Watermelon*
Applesauce
Plum (peeled)
Kiwi (peeled)

Starchy Vegetables:

Mashed potatoes (skins removed)
Sweet potatoes (skins removed)
Cooked beans*
Low-fat refried beans
Black-eyed peas
Soybeans
Pumpkin
Peas*

**May not be tolerated or could cause gastric discomfort. Use caution with corn, peas, asparagus, pineapple, celery, artichoke, broccoli, cauliflower, rhubarb, nuts, seeds, dry meat, shrimp, untoasted bread, pasta, peanut butter, coconut, dried fruit, steak and membranes of citrus fruits (oranges, grapefruit, etc.). No tomatoes or tomato products permitted in the first six months.*

Behavioral Health for Bariatric Surgery

Preparing for Change

To prepare for weight loss surgery, you take time to learn about your new diet and exercise regimens. But it's just as important to prepare for the emotional changes ahead and learn how to manage stress and maintain your lifestyle. After all, surgery is only the first step toward your goals. Maintaining your diet and health (and getting the most benefit from your surgery) is a lifelong process.

Change can be challenging, and maintaining long-term changes takes work. Consider changes you've attempted in the past — perhaps it was starting a new diet or exercise plan, following a new budget or taking a daily multivitamin. Whether the change was large or small, it most likely took time and effort to adopt the new behavior or routine. Based on research, it's likely that (despite good intentions) you weren't able to maintain the changes over time (at least after the first attempt). For example, research shows that on average it takes smokers three serious attempts at quitting before they're successful.

The lifestyle changes you're committing to with weight loss surgery aren't minor or small. Anyone who implies that weight loss surgery is "the easy way out" likely hasn't researched the time, effort and extensive diet and exercise changes required for long-term success after weight loss procedures. If they had, they'd know surgery isn't the easy way out.

The good news is you can start now, before surgery, to prepare for the changes to come. Getting started now can increase your success in maintaining your new lifestyle and weight loss long term.

Weight Loss Surgery is a Tool

Surgery is only the first step in your weight loss journey, and it's just a tool. This tool won't make you keep the weight off long term if you don't change your lifestyle and follow the recommended diet and exercise plans. In other words, the tool only works if you use it and continue using it long term.

What weight loss surgery WILL do:

- Provide a tool to help you reduce portions
- Provide an incentive to avoid sugar, high fat foods and excessive portion sizes (as dumping syndrome, vomiting and other unpleasant symptoms can happen when you don't follow your nutrition plan)
- Provide a mechanism to help you lose weight and live a healthy lifestyle

- Potentially reduce depression and increase self-esteem
- Provide an opportunity to begin a "new" life and reinvent yourself

What weight loss surgery WON'T do:

- Take away cravings for foods that are high in sugar or fat
- Eliminate stress
- Help you manage stress
- Help you solve problems that have caused distress for you in the past
- Automatically improve your relationships
- Take away a food "addiction", emotional eating or binge eating
- Remove temptations or social pressures for eating
- Automatically make you happier or less depressed (although it may help)
- Give you extra time to exercise or be physically active

To get the most benefit from surgery, you need to begin finding other ways to address these remaining challenges that won't be treated or "fixed" by undergoing surgery.

Emotional Adjustment After Weight Loss Surgery

Adjusting to surgery, new routines and weight loss takes time. You're likely to experience a range of emotions as your surgery date approaches and following surgery. Know that emotional ups and downs are normal and to be expected. Being aware of the common emotional benefits as well as the expected challenges can help you be more prepared to recognize what you're feeling when it happens.

Emotional & psychological benefits after surgery:

- Excitement with weight loss
- Feeling empowered or more in control over your health and well-being
- Reduced depression (in fact, depression resolves for about 50% of people who experienced clinical depression before surgery)
- Reduced anxiety (although if you struggle with social anxiety, this may increase initially due to increased social interaction or attention from weight loss)
- Improved body image
- Increased self confidence

Emotional & psychological challenges after surgery:

- Discouragement, frustration or feeling overwhelmed, especially during the early post-operative period; you're adjusting to a new eating regimen and may have increased joint pain, reduced stamina or feel overwhelmed by your weight loss goal
- Adjustment to rapid weight loss; you may experience a

surreal feeling (“is this really happening”) or feel like you don’t know yourself anymore

- Plateaus in weight loss can lead to frustration and discouragement
- People may relate to you differently; you may feel frustrated or even angry to recognize how often others treated you poorly because of your weight
- Your spouse or significant other may have difficulty adjusting to “the new you,” feel jealous of your weight loss or worry that you’ll leave them when you’re thin
- You may realize that you felt a certain amount of comfort, safety or security in your weight; you may feel more vulnerable after weight loss
- Social anxiety may increase
- You may miss the comfort and “normalcy” of eating
- You may feel isolated due to how changes in eating impact social interactions
- If you have unresolved behavioral issues, you may feel uncomfortable with weight loss
- You may be frustrated or embarrassed if you experience dumping syndrome or vomiting (especially in public)
- You must decide who to tell that you’ve had surgery; you may struggle with how to explain changes in eating habits and rapid weight loss to people you don’t want to tell
- You may be surprised or overwhelmed by the work required to manage healthy weight loss after surgery

Acting now to prepare for potential challenges will improve your ability to manage difficult times without slipping into bad habits and without slowing your progress toward your goals.

Setting Yourself Up for Success

You’ve made the important decision to take control of your health and pursue weight loss surgery to help you reach your goals. This decision isn’t an easy one and takes careful consideration, particularly given the time, energy and money you’re investing, as well as the commitment to substantial lifestyle changes. Because long-term success depends on your ability to stick with your lifestyle, it’s *crucial* for you to learn and use new strategies to manage stress. It’s also important to find ways to stay energized and committed to your goals. A support system with friends or family can be incredibly important for your journey.

Here are some key steps you can take to set yourself up for long-term success:

Step 1: Start Preparing Emotionally & Psychologically Now ... Before Surgery

Preparing yourself before surgery helps ensure you’ll be ready for the changes to come. You probably plan to sample different protein shakes before surgery and have some on hand for after surgery, right? It only makes sense to take the same initiative in preparing for the emotional side and behavior changes.

Become familiar with techniques that work for you and can help you implement emotional and behavior changes more efficiently and effectively. The longer you wait, the less time you have to practice and find what works for you. Think about changes you’ve attempted in the past and what made you more or less successful. Apply what you learned from past experiences to increase your chances for success this time. Commit to reviewing the strategies and techniques, and begin practicing.

Step 2: Learn to Self-Monitor Your Stress Level & Mood

When you’re stressed, emotional or overwhelmed, you’re more likely to relapse into bad habits and stray from your diet and exercise plans. Learning to self-monitor your stress level and emotions (sadness, anxiety, frustration, etc.) helps you notice when they’re increasing, so you can intervene before you get overwhelmed. Self-monitoring can be quick and takes only a few seconds at a time. It takes practice to incorporate it into your routine, which is why it’s a good idea to start now.

Practice self-monitoring strategies, such as:

1. Routinely scan your body for tension and consciously relax areas that feel tense, or take a couple of slow deep breaths
2. Mentally rate stress or anxiety from 0-10

Use reminders to help you remember to self-monitor. Set a recurring timer on your phone or computer Pair monitoring with established activities. Identify when you need to act. This may include when you:

1. Reach a certain cutoff (such as four on the 0-10 scale)
2. Increase a certain number of points (such as three points, from a one to a four)

The key is to find a strategy that you can use quickly and regularly.

Step 3: Work to Lower Your Baseline Stress Level

Stress is the most common reason people say they've slipped or didn't stick with a new routine or behavior. Managing stress in new and different ways is crucial to your long-term success. The higher your baseline stress, the easier it is to become overwhelmed. Incorporating relaxing activities to your daily routine is a good step toward reducing your stress level. These activities can be as brief as one to five minutes of activity at a time, two to three times per day.

This could include:

- Deep breathing
- Praying or meditating
- Listening to quiet, calming music
- Visualizing a favorite vacation destination
- Taking short rest breaks
- Walking or exercise
- Getting fresh air

Evaluate your current priorities and make a list of your top five right now (i.e., the things you spend most of your time and energy on). If you or your health aren't in the top five (preferably the top three), work to determine how you can reorganize things. You may need your support network to help.

Step 4: Identify Your Current Healthy Coping Strategies & Learn New Ones

Surgery and the life change that you're making are likely to increase your stress at times. During these times, it can be difficult to recall what's helpful to lower your stress level. Many people use the comfort of food or eating to cope with stress. After surgery, you need healthy coping strategies.

You may have great coping strategies you already use. Make a list of ways you currently cope with stress or emotional challenges. Focus on positive or healthy strategies versus destructive or unhealthy ones. Add new strategies to the list that you want to start using in addition to your existing ones. Make copies of this list and post it in locations where you'll see it, especially in places where you're most likely to experience increased stress, such as at your desk or computer. Healthy coping strategies include:

- Taking a short walk around the block (or around your office suite)
- Listening to music
- Watching a funny movie

- Taking a quick break, closing your eyes and relaxing your muscles
- Listening to your favorite comedian
- Taking a warm shower or bath
- Praying or meditating
- Gardening
- Calling a friend
- Remembering a funny moment or fun time with friends and family
- Exercise
- Reminding yourself of your accomplishments
- Getting a massage
- Playing with your children or pets

Step 5: Reflect on Your Support Network

Success with behavior changes increases when you rely on a *positive* support network. Think about people in your life who you consider to be part of your support network. They're there when you need them and are easy to talk to without feeling judged or criticized. They encourage and motivate you. Talk with them about your surgery and how they can help support you before, during and after.

Consider anyone who might be a non-supporter. This is someone who might try to sabotage your efforts, be overly critical of your weight or your decision to have surgery. Think about ways to set healthy boundaries with these people. Empower yourself to limit or eliminate contact with people who aren't positive support. Begin to diversify your support network by thinking about ways to find people in different settings like work or church who are positive support.

Step 6: Seek Additional Sources of Positive Support

It can be very beneficial to expand your support network to include people who understand or have experience with weight loss surgery. Attend the Mercy Bariatric Support Group. It's a great way to connect with people who know what you're experiencing firsthand. Consider individual counseling, which can help prepare you for changes and support you in reaching your goals. Meet up with others to walk on your lunch hour. Online support is also available through the Mercy Bariatric Surgery Support page on Facebook. Request to join the group and get support from other surgery patients from around Mercy.

Preparing for Relapse & Creating a Relapse Prevention Plan

Preparing for relapse (times when you fall back into unhealthy eating habits or sedentary behaviors), is a crucial step toward surgery readiness. While it may feel uncomfortable to think about relapse before you've even had surgery, getting ahead of relapse means you'll be fully equipped to identify its warning signs and address it head on if it happens.

The reality is that at some point after surgery, most people face relapse. Everyone encounters it at different times, sometimes in the weeks after surgery or not for months or years later. Relapse may crop up in small or subtle ways, such as putting off exercise for a day or two, not consistently logging food and activity or not drinking your required daily water. It can also appear in more obvious ways, like not taking vitamins regularly, rarely getting in the required physical activity or returning to eating unhealthy foods high in fat or sugar.

Consider your triggers and warning signs of relapse now and create a plan for how to address relapse when you notice it approaching or occurring. This is crucial for long-term success.

First, recognize ways you can prevent relapse:

1. Avoid high-risk situations like your favorite restaurant in the weeks after surgery
2. Plan ahead; be prepared with appropriate meals and snacks; wear comfortable shoes, or bring them to work so you can walk on breaks
3. Monitor your mood and stress level; work to lower your baseline stress; remember to use your coping strategies in response to acute stressors

Next, fill out your Relapse Prevention Plan at the end of this section. Think of this plan as a contract and commit to following it. After you fill it out, sign and date the bottom. Keep the plan where you can see it and review it periodically.

Goal Card

A goal card serves as a quick and important reminder of your goals and reasons you want to reach them. It can keep you focused on maintaining difficult lifestyle changes.

A few tips to get the most from your goal card:

1. When listing goals:
 - Include short- and long-term goals
 - Goals should be:
 - **Measurable** – How will you know when the goal has been reached?
 - **Realistic** – Is it possible to achieve?
 - **Behavioral** – Does it involve specific actions or steps to take?
 - **"I" Centered** – Are you the one engaging in the actions or behaviors to be measured?
 - **Desirable** – Do you want the results enough to put forth the effort?
 - For example, instead of writing, "I want to have more energy," write, "I want to have enough energy to bike five miles with my husband."
2. Make several copies so you can carry one with you and post others in important locations where you will see it frequently (bathroom mirror, computer, in your car, on the pantry or refrigerator door, etc.)
3. Review this card often (aim for at least two to three times daily) and anytime you feel triggered or tempted to deviate from your plan.
4. Update your card frequently to stay enthusiastic about your goals, and of course, when you have achieved the goals you had already listed.
5. Keep old cards (or at least your first one) as a reminder of your progress and all the goals you have already achieved. Periodically look at old cards to keep you energized and invested in reaching your current goals.

EXAMPLE:

I will follow my plan for diet, physical activity and stress management so I can reach my health and weight loss goals. I want to lose weight and be healthier so I can:

- | | |
|---|--|
| 1. <i>Get off blood pressure medication</i> | 4. <i>Not have joint pain when I walk upstairs</i> |
| 2. <i>Play baseball with my kids or grandkids</i> | 5. <i>Go hiking with my family</i> |
| 3. <i>Wear a size "x" pants</i> | 6. <i>Smile when I see myself in the mirror</i> |

Relapse Prevention Plan

1. **Warning Signs:** What are the thoughts, images, mood, situations, behaviors, etc., that signal relapse may be developing?
 - a. _____
 - b. _____
 - c. _____
 - d. _____
2. **Stress Management:** What will I do to lower my overall stress level?
 - a. _____
 - b. _____
 - c. _____
 - d. _____
3. **Coping Strategies:** What will I do when triggered to prevent relapse. Be sure to include internal strategies (relaxation, etc.) and external behavioral strategies. Don't plan to rely on willpower alone.
 - a. Distractions (delay of behavior for 15-20 minutes): _____
 - b. Seeking support (Who will I tell? Being transparent with trusted others is crucial.): _____
 - c. Good memories: _____
 - d. Fun activities: _____
 - e. Relaxation: _____
 - f. Positive thoughts: _____
 - g. Ways I can be more physically active: _____
4. **Stimulus Control**
 - a. What will I *remove* from home, work, etc., to help me with my lifestyle changes?
 - i. _____
 - ii. _____
 - iii. _____
 - iv. _____
 - b. What will I *keep or add* at home, work, etc., to help me with my lifestyle changes?
 - i. _____
 - ii. _____
 - iii. _____
 - iv. _____
5. **Triggers:** What situations, places and/or people do I need to _____ limit or avoid (when possible)?
 - a. _____
 - b. _____
 - c. _____
 - d. _____
6. **Reinforcement of Goals:** What are the reasons I have made this change? (Include any tangible object or symbol to remind and inspire me and/or goal card.)
 - a. _____
 - b. _____
 - c. _____
 - d. _____
7. **"Rules"** to help me follow through with my new lifestyle:
 - a. _____
 - b. _____
 - c. _____
 - d. _____

Signature: _____

Date: _____

Exercise

Benefits of Exercise

Exercise offers physical and mental health benefits, including:

- Deeper, more restful sleep
- Better resistance to stress
- More effective weight maintenance
- Improved appearance
- Reduced risk of osteoporosis
- Lower resting heart rate
- Improved blood pressure
- Better blood sugar control
- Decreased triglycerides
- Increased HDL (the good cholesterol)
- Reduced risk of heart disease
- More energy and capacity for work and leisure activities
- Increased calories burned during and after workouts
- Improved metabolism by increasing muscle mass

Beginning an Exercise Regimen

Start today! Focus on these three key areas: cardio, strength training and flexibility.

Cardio

Cardio offers an abundance of benefits. It helps boost your energy levels, improve your sleep quality, reduce anxiety and increase confidence. Cardio also strengthens the heart and lungs, improves bone density and promotes better blood glucose control and blood pressure levels. It gets us moving, and our bodies are designed to be on the move. Cardio can be as simple as a brisk walk, playing golf, yardwork, cycling, dancing, swimming or hiking. Move in a way that feels comfortable to you as soon as possible to promote weight loss and help condition your body for surgery.

Strength Training

Strength training helps build lean body mass (or muscle mass), which helps boost metabolism to keep our bodies burning calories. Strength training also improves bone health and reduces the risk of injury.

Strength training includes body weight exercises, lifting weights, sit-ups and crunches. Start small with a strength training regimen and build progress gradually. Try using one- to five-pound weights. When you're able to do three sets of 15-20 reps, the weight can be increased. Stop doing any exercise if you feel a sharp pain (don't try to push through it). It's important to listen to your body.

Flexibility

Flexibility training is used to prevent injuries and improve recovery after exercise. Stretch before and after you exercise, and consider including flexibility training like yoga or Pilates in your regimen twice a week.

Warm-up & Cool-down Stretches

Stretches are important because they promote circulation; improve flexibility; keep joints, ligaments and muscles loosened; and decrease the chance of dizziness and irregular heartbeats. They also feel great. Stretches should be done daily and before, during and after any activity that increases your heart rate.

How do you stretch?

- Begin with a gentle warm-up walk
- Breathe normally
- Start with gentle easy stretches
- Stretch until you feel slight tension and hold for 10 seconds
- Don't bounce or stretch to a point of pain
- Repeat each stretch five to 10 times

Safe Exercise

It's important to be aware of the signs of exercise intolerance, including lightheadedness, dizziness, fainting, nausea, vomiting, unusual sweating, pain or tightness in the chest, increased or unusual shortness of breath, or very fast, slow or irregular heartbeat. If any unusual symptoms occur, immediately discontinue the exercise and talk with your doctor.

Aerobic Exercise & the FITT Principle

The FITT principle stands for frequency, intensity, time and type. Each of these elements works together to help you reach your fitness goals.

Frequency

Begin exercising three days a week to strengthen your heart and improve overall health. Gradually increase your frequency. The long-term goal for sustained weight loss and maximum health is five to seven active exercise days per week.

Intensity

Exercise at moderate intensity to maximize the calories you burn. Longer distances at a moderate pace are more effective than exercising at maximum intensity for shorter periods. Strive for a pace that you can maintain without gasping for air, tiring out or developing muscle soreness.

Time

The eventual goal is 30-60 minutes of exercise per day. Start with less, such as five to 10 minutes a day (or as comfortable) and gradually increase by one or two minutes per session (or five minutes total per week) until you're able to exercise 30-60 minutes total.

Shorter bouts of exercise are just as effective as longer bouts. This is especially beneficial if joint pain is an issue. Exercise sessions can be divided into smaller amounts of time throughout the day. For example, instead of exercising for one hour continuously, do 20 minutes in the morning, 20 minutes at mid-day and 20 minutes in the evening.

Type

Walking is a great aerobic activity. It can be done anywhere without special equipment or any extra cost. Aquatic exercise is also a great option if you have arthritis or orthopedic concerns. For lower body pain, cycling, NuStep and chair aerobics are great alternatives. You have many options for getting active, so find activities you enjoy and that feel comfortable to you, such as walking, dancing, swimming, water aerobics, jogging, aerobics classes, cycling, gardening, yardwork, tennis, golfing, stretching, yoga, Tai Chi, Pilates, weightlifting, resistance-band training, hiking, basketball, karate, canoeing or ice skating.

Accountability

It's important to keep an exercise log or journal. You may also want to use a pedometer or smart watch to track your daily steps. The goal for an active lifestyle is 8,000-10,000 steps per day, but this may not be practical at first. Set smaller goals to gradually work toward. Consider adding 500-1,000 steps daily for a month and then continue to build on it. Attending group exercise classes or exercising with a friend or family member can also improve accountability.

Exercise After Surgery

Immediately After Surgery

You should be up and walking as much as possible after surgery. Point and flex your feet every 15-30 minutes. An incentive spirometer is provided by the hospital, which you'll use to take deep breaths. Take deep breaths every 10-15 minutes to reduce risk for pneumonia. Also, try to cough every hour.

For the first four weeks after surgery, don't lift more than 20 pounds. After four weeks you don't have lifting restrictions, but if something causes pain, don't continue. Walk as much as possible and avoid swimming. After the first month, you don't have exercise restrictions.

Wrap-Up Class

Wrap-up Class is offered the first Wednesday of each month and prepares you for surgery and the post-operative period. You can't be scheduled for surgery without completing this class. You can't attend wrap up class until you've completed your lab work, behavioral health, nutrition and exercise sessions.

Agenda

- Welcome
- Risk of Surgery, Provider
- Planning for Success, Behavioral Health
- Nutrition and Exercise
- Post-Surgery, Dietitian
- Hospital Readiness

While in the Hospital

- ✓ Get up and moving; start walking as soon as two hours after surgery
- ✓ Pump your calves, and point and flex your feet every 10-15 minutes
- ✓ Take deep breaths every 10-15 minutes
- ✓ Take small sips continuously; remember that nausea is the first sign of dehydration
- ✓ Your fluid goal on surgery day is one to three ounces per hour; the day after surgery, your goal is four to six ounces per hour
- ✓ Use the fluid tracking sheet

Day of Surgery

Register at the first floor admission desk in Mercy Hospital Northwest Arkansas. Once registered, you're directed to the third floor and will check in at the surgery desk.

Preoperative Area

Plan to be here for one to two hours. Generally, you may have one adult with you while you're here, but our visitor policy is subject to change. A nursing assessment is completed that includes information about current medications and the last dose of each. Arm bands are placed on with identification, blood type, allergies, etc. Anesthesiology completes an airway assessment. IVs are placed at this time, and medications may be administered,

including antibiotics. Scopolamine patches may be placed behind your ear to ease nausea. **Don't remove this patch for three days.** From here, you proceed to the operating room and are placed under general anesthetic. Please inform your caregivers of any prior issues with general anesthetic.

Family will be directed to the surgical waiting area on the third floor. Our physicians will meet your family here after surgery.

Operating Room

Procedures take from one and a half to two hours. Routine monitoring equipment is used and may remain until you're safely in the nursing unit. Some patients have this equipment for the remainder of their stay, depending on their health conditions.

Surgery Recovery Room

You'll recover here for about an hour until your vitals are within normal limits, and you're awake and able to communicate.

Surgical Waiting Area

Families need to check in at the volunteer desk upon arrival and again any time they leave and return to the waiting area. The waiting time may be three to four hours. Our doctors speak to your family when surgery is complete and your family is notified when you're admitted to a room.

After Surgery

The First Night

You may bring items such as pillows, blankets, an iPad or books to make your stay more enjoyable. The nursing staff checks vitals and blood sugars frequently throughout the night. Remember to flex and point your toes every 10-15 minutes, and take deep breaths and clear secretions every 10-15 minutes.

Walking

The goal is to be up and walking two hours after you're in your room. You may use the call light to ask for assistance with walking. Walking early and often is essential for reducing complications.

Pain

Pain is to be expected, but please let a caregiver know if your pain isn't well-controlled. You won't be entirely pain free but should be comfortable enough to walk, sleep, take deep breaths and cough. Pain is usually in the upper abdomen and shoulder. Shoulder pain is common after laparoscopic procedures because gas is used to inflate the abdomen. It may take two to three days to work itself out.

Ideally, you should be fully transitioned to oral pain medications by one day after surgery. Talk with your nurse about your pain and any needs you have.

Respiratory

Take deep breaths and clear secretions every 10-15 minutes to prevent respiratory complications. Compliance with this is essential.

Diagnostic Testing

Further testing is ordered should a gastric leak be suspected after surgery.

Dietary

You should never receive a tray with food. If this happens, let your caregivers know. Eating or drinking anything other than what's permitted on the liquid diet may be fatal. While in the hospital, you should only receive room temperature bottled water, Propel and protein drinks. *Absolutely no straws, gulping, ice chips or carbonated drinks.*

Length of Hospital Stay

Length of stay can vary depending on your procedure, how you respond after surgery and how compliant you are with post-operative instructions. Plan to have transportation available for the two days after surgery.

At-Home Care

Your discharge instructions contain a complete list of reasons to call after surgery. It also includes instructions about medications to continue taking at home.

Vomiting

Nausea is expected after surgery, but repeated vomiting isn't. You're discharged with medication to ease nausea, but it won't completely relieve it. While progressing through the diet stages, remember to slow down when eating or drinking, avoid overeating or drinking too much and chew food well.

Drain Site

You may be discharged with a drain. Your nurse gives you detailed instructions on caring for your drain at home. When the drainage from your drain is less than 20-25 ml in a 24-hour period, call the clinic nurse to schedule a visit for drain removal. The drain site may have a little bit of redness around the abdominal wall. This is normal irritation from the tube. If the redness is more than ¼" around, becomes more painful or appears to have pus at the site, contact the office. The drainage may appear bloody, pink, brown, yellow or anything in between and look to have stringy material in the fluid; this is normal.

Diarrhea

Diarrhea is possible the first week after surgery. Notify the office if you experience diarrhea more than five to six times per day. Dehydration can occur with frequent diarrhea.

Constipation

Constipation is common after surgery due to anesthesia, pain medication, a high protein diet and large amounts of iron and calcium from bariatric vitamins. Constipation may take three to four weeks to resolve, but can be minimized by:

- **Hydration** – Drink a minimum of 64 ounces of fluid daily
- **Exercise** – Regular exercise like walking can help relieve constipation
- **Stool Softeners** – Docusate (Colace®) can be purchased over the counter and is the first treatment for constipation; stool softeners are gentler than laxatives and safe to take before and after surgery (and long-term); they're particularly good for people taking narcotic pain medications; take 100 mg of Colace twice daily as needed
- **Fiber Supplements** – Over-the-counter fiber supplements are safe to take before and after bariatric surgery (and long-term); if fiber supplements are recommended, wait to introduce them until several months after surgery; they're usually dissolved in water and need to be taken with plenty of extra water for optimal results; brands include Benefiber® (wheat dextrin), Citrucel® (methylcellulose), FiberCon® (polycarbophil) and Metamucil® (psyllium)
- **Laxatives** – Over-the-counter laxatives are safe to take before and after surgery but aren't intended for long-term use; they can help treat acute constipation after surgery; **osmotic laxatives** include Milk of Magnesia® (magnesium oxide) and Miralax® (polyethylene glycol); **stimulate laxatives** include Dulolax® (bisacodyl) and Senokot® (sennosides)

Wound Care

Purchase large band aids before surgery to cover incision sites after discharge. These are used mostly for comfort to prevent staples or incision lines from rubbing against clothing.

If a drain is placed, you'll need to purchase 4" x 4" gauze pads and paper tape, available at most pharmacies. Dressing sites should be changed at least two times per day, and dressings should be removed before showering. Soap and water should be used on the incision site. Don't put antibiotic creams, ointments or peroxide on the incision site.

Hair Loss

Hair loss isn't uncommon due to the stress of weight loss surgery, but it usually resolves within six months. Hair loss related to surgery is seldom permanent. Be sure to take a bariatric multivitamin with enough iron and B-vitamins. Avoid excessive doses of vitamin A or zinc. Try adding fish rich in omega-3 fatty acids or flaxseed oil to your diet several times per week. Getting enough protein is also important.

Other Complications

If you develop shortness of breath or chest pain, call 911 immediately. If one or both of your calves become red, swollen, hot to the touch or painful, call 911 or go to the emergency room immediately.

Follow-Up Care

Complying with the recommended follow-up care typically results in a higher success rate and fewer complications.

General Medication

Once discharged, you'll be able to take whole pills. Larger pills should be taken by themselves, but you may take more than one small pill at a time. Don't crush pills. Medications don't have to be taken in liquid form. Restrictive and malabsorptive procedures, such as the Roux-en-Y gastric bypass, can decrease the absorption of extended-release, delayed-release, enteric or film-coated medications. If possible, immediate-release forms of medications should be substituted. Dosage of medications should be closely monitored after your surgery. Remember to take bariatric multivitamins only. Children's or prenatal vitamins aren't enough to meet your post-operative needs.

Psychiatric Medication

If not restarted in the hospital, start taking your psychiatric medications the day you get home from surgery. Withdrawal from these medications can be significant. Weight loss surgery doesn't fix mental health disorders. Don't stop taking these medications without first consulting a physician. Typically, you stay on these medications for at least six months after your bariatric procedure. When you're ready to stop taking these medications, consult your primary care physician for the most appropriate way to taper off medications. If your mental health issues recur, become worse or you experience side effects from your psychiatric medications, contact your prescribing physician for an adjustment.

Ulcer-Prevention Medication

You must take an acid reducer for at least six months after surgery, such as Prilosec, Nexium, Protonix or Prevacid. Our care team will provide you with a prescription at discharge.

Medications to Avoid

Avoid the following medications after surgery and for the rest of your life: NSAIDs, some arthritis medications known to cause ulcers, Advil, Aleve, Aspirin, Bayer, Bextra, Celebrex, Celecoxib, Clinoril, Daypro, Ibuprofen, Indomethacin, Ketorolac, Diclofenac, Lodine, Meloxicam, Mobic, Motrin, Nabemutone, Naprosyn, Naproxen, Rofecoxib, Sulindac, Toradol and Vioxx.

You can take muscle relaxants, most narcotics and Tylenol.

Post-operative Instructions

Week One

Diet & Exercise

Continue logging fluids and protein. Be sure to meet your pre-operative protein goals (approximately 60-80 grams per day, unless otherwise instructed by the dietitian). Continue drinking 64 ounces of liquids daily, as hydration is crucial. Begin using a chewable bariatric multivitamin as soon as you're discharged from the hospital.

Walk, and point and flex your feet several times per hour. Continue to take deep breaths once discharged from the hospital. Don't lift more than 20 pounds for the first two weeks.

Wounds

Avoid swimming and bathtubs for six weeks. If you have drainage, continue keeping incision site covered. Avoid peroxide and antibiotic ointment. Once drainage stops, you can leave the wound open to air. Watch for pus, redness, warmth or food at the incision site.

General Medical

- Continue scheduled Tylenol for the first 48 hours and then as needed. Use prescribed pain medication as needed for break through pain.
- Left side pain is normal for the first several days after surgery. This should be relieved when you sit or lie down. If no relief with rest contact our office.
- Women are strongly encouraged to use birth control for the first 18-24 months after surgery
- Continue acid-reducing medication for a minimum of six months
- Don't smoke or use any form of tobacco or nicotine
- Contact your primary care physician if you take blood pressure medication because your dosage may need to be adjusted after surgery; signs you may need a dosage adjustment include dizziness, lightheadedness when changing positions, nausea or tunnel vision; see your primary care physician at two weeks and approximately six to eight weeks after surgery
- Continue monitoring blood sugars as you did before surgery; when your fasting blood sugar is less than

120 mg/dL for three consecutive mornings, notify your primary care physician for medication adjustment; see your primary care physician at two weeks and approximately six to eight weeks after surgery

- Continue psychiatric medication immediately after discharge; contact your primary care physician or psychiatrist if you don't feel your mental health is well-controlled after surgery; make an appointment for psychiatric medication management at three weeks and eight weeks after surgery

One Month After Surgery

Diet & Exercise

Continue logging your fluids and protein. Be sure to meet your pre-operative protein goals (approximately 60-80 grams per day unless otherwise instructed by the dietitian). Refer to the nutrition section for more information on diet progression. Continue drinking 64 ounces of liquids daily or more. Continue using a chewable bariatric multivitamin for six months, at which time you may transition to a capsule bariatric vitamin. You don't have exercise restrictions and can gradually increase exercise daily. Add in resistance training as well.

General Medical

Don't stop using your CPAP without consulting your doctor. You may need an adjustment after weight loss surgery. Contact your provider for adjustments as needed. Women should continue using birth control for the first 18 months after surgery. Continue acid-reducing medication until at least six months after surgery. Don't smoke or use any form of tobacco or nicotine. Contact your provider for adjustments in blood pressure or diabetes medications. Continue psychiatric medications as prescribed.

Future Follow-Ups

You'll be seen post-operatively at seven to 14 days, one, three and six months, one year and annually until five years after surgery. At that time, you can decide if you want to continue your care with the bariatric team or with your primary care provider. Post-operative visits are critical to your long-term success. We strongly encourage you keep each visit and contact us to reschedule if you're unable to attend.



Conclusion

Preparing for weight loss surgery and the changes that come with it is an exciting and busy time. Each component of your program is designed to help you reach your post-surgical goals and lead a healthier lifestyle from this point forward. Preparing for the emotional and behavioral changes ahead of time is crucial to your long-term success. By reading this guide and following your care team's instructions, you're well on your way to success with reaching your post-surgical goals.

Don't forget the supports available to you. Our team of professionals are all here to help you in the days, weeks and years ahead. We're committed to helping you reach your goals. Individual counseling is also available before and following surgery through Mercy Behavioral Health, which can be tremendously beneficial to improving your emotional wellbeing and quality of life.

Congratulations on your decision to start a healthier life. We're honored to be a part of your journey and can't wait to share in your success.

Shopping List

- Docusate sodium (Colace[®]) 100 mg
- Bariatric-specific multivitamin, separate iron and calcium as needed
- Acetaminophen (Tylenol[®]), extra strength
- Antibacterial soap (Gold Dial[®] soap is the standard)
- Protein (powder, shakes, waters, etc.)
- Large bandages

Optional Items:

MiraLAX[®], Milk of Magnesia[®], Glycerin Suppository and Fleets Enema[®]

Other Items:

My Goals

Protein: _____

Calories: _____

Fluids: _____

