

# Bariatric Surgery

## Patient Education Guide



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PeaceHealth Bariatric Surgery  
3377 RiverBend Dr  
Suite 230  
Springfield, OR 97477

Phone: 541-222-2700  
Fax: 541-222-6113  
[www.peacehealth.org/bariatrics](http://www.peacehealth.org/bariatrics)

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# Meet the Surgeon

Our providers are highly experienced in the field of *bariatric* surgery, also known as weight-loss surgery. Our trained specialists include medical providers, medical assistants, dietitians, psychologists and support staff who work as part of your team to serve you better.

## Matthew Gust, MD



Director, Metabolic and Bariatric Surgery  
Laparoscopic and Robotic-assisted surgery  
Endoscopy  
Board-certified, General & Foregut surgery

- Fellowship: Clinical Fellowship in Bariatric Surgery, Legacy Medical Center, Portland
- Residency: University of Illinois, Chicago, Illinois
- Medical School: University of Illinois Medical School, Chicago, Illinois
- Member & Fellow, American Society for Metabolic and Bariatric Surgery (ASMBS)
- Member, Society of American Gastrointestinal and Endoscopic Surgeons (SAGES)

# What is Obesity?

Obesity is a complex disease involving having too much body fat. This condition substantially raises risk for high blood pressure, type 2 diabetes, coronary heart disease, stroke, gallbladder disease, osteoarthritis, sleep apnea, respiratory problems, and cancer of the breast, prostate, and colon. People with obesity face increased stereotyping, discrimination, and weight bias which can worsen their health and prevent them from accessing quality healthcare.

There are several classifications of obesity. People with a Body Mass Index (BMI) of 35 or higher often qualify for bariatric surgery and those with a BMI of 30–34.9 may also qualify as long as one or more obesity-related conditions (such as high blood pressure, diabetes, high cholesterol, heart disease) are present. Our Patient Coordinator will confirm insurance benefits and clarify requirements for bariatric surgery.

## How to Calculate BMI

The formula to calculate BMI is:  
 $[\text{weight (pounds)} \div \text{height (inches)}^2] \times 703$ .

Let's say you weigh 250 pounds and stand 5 feet, 10 inches tall. To calculate your BMI, multiply your height in inches (70) by itself (70). Divide your weight in pounds (250) by this number, then multiply the result by 703.

Example:

- 5 ft 10 inches = 70 inches
  - 70 inches x 70 inches = 4900
    - 250 pounds ÷ 4900 = 0.051
      - 0.051 x 703 = 35.8 BMI

There are also online calculators:

[www.nhlbi.nih.gov/calculate-your-bmi](http://www.nhlbi.nih.gov/calculate-your-bmi)

[www.cdc.gov/bmi/adult-calculator](http://www.cdc.gov/bmi/adult-calculator)

		Height (ft)									
		4'9"	4'11"	5'1"	5'3"	5'5"	5'7"	5'9"	5'11"	6'1"	6'3"
154	Weight (lbs)	33	31	29	27	26	24	23	22	20	19
165		36	33	31	29	28	26	24	23	22	21
176		38	36	33	31	29	28	26	25	23	22
187		40	38	35	33	31	29	28	26	25	24
198		43	40	37	35	33	31	29	28	26	25
209		45	42	40	37	35	33	31	29	28	26
220		48	44	42	39	37	35	33	31	29	28
231		50	47	44	41	39	36	34	32	31	29
243		52	49	46	43	40	38	36	34	32	30
254		55	51	48	45	42	40	38	35	34	32
265		57	53	50	47	44	42	39	37	35	33
276		59	56	52	49	46	43	41	39	37	35
287		62	58	54	51	48	45	42	40	38	36
298		64	60	56	53	50	47	44	42	39	37
309		67	62	58	55	51	48	46	43	41	39
320		69	64	60	57	53	50	47	45	42	40
331		71	67	62	59	55	52	49	46	44	42
342		74	69	65	61	57	54	51	48	45	43
353		76	71	67	63	59	55	52	49	47	44
364		78	73	69	64	61	57	54	51	48	46
375		81	76	71	66	62	59	56	52	50	47
386		83	78	73	68	64	61	57	54	51	48
397		86	80	75	70	66	62	59	56	53	50
408		88	82	77	72	68	64	60	57	54	51
419		90	84	79	74	70	66	62	59	56	53
430		93	87	81	76	72	67	64	60	57	54
441		95	89	83	78	73	69	65	62	58	55
452		98	91	85	80	75	71	67	63	60	57
463		100	93	87	82	77	73	69	65	61	58

Weight Category	BMI
Normal Weight	18.5–24.9
Overweight	25–29.9
Obesity	30–34.9
Severe Obesity	35–39.9
Morbid Obesity	≥ 40

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# Procedure Types

## **Finding the Right Bariatric Surgery for You**

Choosing the right bariatric surgery is like finding the perfect pair of shoes—what works for one person might not work for another. It's important to talk with your surgical team about what you hope to achieve with the surgery and how to get there.

Bariatric surgeries help you lose weight in three main ways:

### **Restriction:**

Imagine your stomach as a balloon. This method makes the balloon smaller, so you can't fill it with as much food. Eating less means taking in fewer calories, which helps you lose weight. This change is long-lasting and helps keep the weight off.

### **Hormonal:**

Surgery can change the hormones in your stomach and intestines. These hormones help control your blood sugar, insulin, and how full you feel. This makes losing weight easier, especially in the first year.

### **Malabsorption:**

This method is like a detour for your food, delaying the digestion of what you eat. In surgeries like the Roux-En-Y gastric bypass, your intestines are rearranged so your body absorbs fewer calories (about 10-15% less). This can lead to more weight loss. However, it can also cause deficiencies and impact how some medicines work, so regular check-ups are important.

## **Minimally Invasive Surgery: Advanced Care for You**

We believe in giving our patients the best surgical care available. That's why all our procedures are done using minimally invasive techniques, which means using small cuts to perform big surgeries.

In the past, these surgeries needed large cuts in the middle of your belly to reach the stomach or intestines. This often led to more pain, a higher risk of hernias, and longer hospital stays. With our advanced techniques, most patients can go home within 24 hours and need only a little pain medication after surgery.

## **Robotic Surgery: A Step Forward**

Robotic surgery is a big leap in minimally invasive surgery. With the help of a robotic system, our surgeons can control their tools with more precision and see the anatomy better. This means safer surgeries for you. Plus, there's no extra cost for using these advanced techniques.

As one of the busiest robotic bariatric centers in the state, we work closely with our robotic manufacturer to ensure you get the safest and most up-to-date surgery possible.

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# Procedure Types

## Roux-en-Y Gastric Bypass: The Gold Standard

The Roux-en-Y gastric bypass is often called the "gold standard" of bariatric surgery. First performed in the 1960s, this procedure has been a key player in weight loss surgery for decades. While we've improved the technique over the years, the basics remain the same. Today, it's done using tiny tools through small cuts, either laparoscopically or with a robot.

### How the Procedure Works:

**Creating a Small Stomach Pouch:** Surgeons use a stapler to make a tiny stomach pouch, about the size of half a banana (50 mL). This limits how much you can eat.

**Rearranging the Intestines:** The small intestines are divided, and a loop is attached to the new stomach pouch. This loop determines how much of the intestines are bypassed.

**Connecting the Intestines:** A new connection is made between the new loop and the old intestinal path. This allows the remaining stomach to drain and digestive enzymes to start working. Food only begins to digest when the intestines meet again.

### How It Helps You Lose Weight:

The gastric bypass uses all three methods of weight loss surgery:

**Restriction:** The small pouch limits how much you can eat.

**Hormonal Changes:** The surgery changes hormones in your stomach, helping with long-term weight loss.

**Malabsorption:** The bypassed intestines mean fewer calories are absorbed, boosting weight loss.



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# Procedure Types

## Roux-en-Y Gastric Bypass: The Gold Standard (cont'd)

### Advantages:

**Proven Success:** As the gold standard, we have lots of data showing its success in weight loss and solving weight-related problems.

**Powerful Weight Loss:** This surgery often leads to losing 10 to 15 pounds more than the sleeve gastrectomy and helps resolve weight-related issues.

**Helps with Heartburn:** It's the best surgery for treating heartburn.

**Effective for Moderate Diabetes:** This surgery is helpful for those with moderate diabetes, like someone who just started insulin.

### Disadvantages:

**More Complex Surgery:** This surgery is more complicated, with a higher chance of complications compared to the gastric sleeve, though both are very safe.

**Vitamin Deficiency:** Malabsorption can lead to vitamin shortages, so regular monitoring is needed. It also affects how some medicines work.

**Fragile Connections:** The new connection between your stomach and intestines is delicate. Smoking, marijuana, and certain medications like ibuprofen can cause ulcers, leading to pain and nausea. Patients must avoid these substances after surgery.

**Digestive Issues:** If you already have stomach problems like constipation or diarrhea, this surgery might make them worse.

**Dumping Syndrome:** Sometimes, food moves too quickly into the intestines, causing cold sweats, nausea, dizziness, and discomfort. This is called dumping syndrome. Some foods might need to be avoided after surgery, but it's hard to predict who will experience this.

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# Procedure Types

## Sleeve Gastrectomy: A Popular Choice for Weight Loss

Sleeve gastrectomy is the most popular weight loss surgery today. Even though it's only been around for about 20 years, its great benefits and low risks have made it a favorite in the United States and around the world. It's become an ideal option for many people looking to lose weight.

### How the Procedure Works:

During a sleeve gastrectomy, about 80% of your stomach is removed, leaving you with a stomach shaped like a banana. The intestines are not changed at all.

### How It Helps You Lose Weight:

The sleeve gastrectomy helps you lose weight in two main ways:

**Restriction:** The smaller stomach limits how much food you can eat.

**Hormonal Changes:** Removing a large part of the stomach changes hormones, which helps with long-term weight loss.

### Advantages:

**Simplicity and Safety:** This is the simplest and safest bariatric surgery. Most people have a very low risk of complications.

**Wide Availability:** Because of its safety, this surgery is available to almost everyone, even those with kidney failure, Crohn's disease, large abdominal hernias, or liver failure. It's also safe for people who use medications like ibuprofen or steroids and patients who smoke.

**Effective Weight Loss:** While not as powerful as the gastric bypass, it still leads to significant weight loss and helps with weight-related problems.

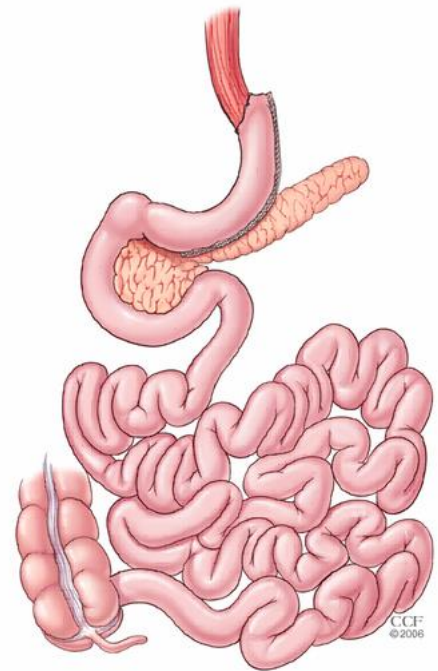
**Outpatient Option:** For some patients, this safe procedure can be done as an outpatient surgery, meaning you might go home the same day.

### Disadvantages:

**Less Powerful than Gastric Bypass:** It may lead to slightly less weight loss, about 10 to 15 pounds less than the gastric bypass.

**Heartburn Risk:** With a smaller stomach, there's less room for acid, which can worsen heartburn. However, losing weight often improves heartburn for many people.

**Not Suitable for Large Hiatal Hernias:** This surgery isn't the best choice for those with large hiatal hernias, as the smaller stomach can increase the risk of the hernia coming back after surgery.



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# Pathway to Surgery

Use the following guide as a checklist for becoming a candidate for bariatric surgery:

## 1. **Understand Your Bariatric Benefits**

Check your insurance benefits, coverage, and costs. Use the financial checklist included in your welcome packet. PeaceHealth offers estimates for visits and surgery. You'll need CPT codes from our office for accurate estimates.

## 2. **Have Your Surgical Consult**

Our surgical provider will take the time to review and discuss your medical history, surgical options, risks and benefits as well as requirements to become a candidate for surgery.

## 3. **Lose Some Weight Before Surgery**

Our program and many insurance companies ask you to lose a little weight before surgery. This isn't to stop you from having surgery but to make it safer. We'll help you reach this goal!

## 4. **Get Your Baseline Labs Done**

After your first visit with the surgical provider, you'll need to complete lab work to move forward. Complete these tests within 30 days of your surgical consultation. Remember to fast for 12 hours and avoid supplements for 24 hours before your blood draws.

## 5. **Manage Your Diabetes**

Keeping your blood sugar under control helps prevent infections and aids healing. If your diabetes isn't well-controlled, we may have you work with your medical doctor or diabetes specialist to reach an acceptable level.

## 6. **Stop Smoking**

Using tobacco or nicotine is dangerous after surgery. If you need help quitting, talk to your medical doctors. Also consider the Oregon Heart and Vascular Institute which offers a smoking cessation support group (phone 541-222-7442). A referral is not required, and you may call them directly.

- If you use nicotine, we recommend quitting before surgery. Some insurances require it and testing to make sure you do.
- If you've quit recently, we'll test your urine to ensure you're staying nicotine-free.
- Avoid secondhand smoke, as it can affect your test results.

## 7. **Complete Nutritional and Psychological Evaluations**

After your initial consultation and lab work, you'll meet with a dietitian and psychologist. They specialize in weight loss and bariatric surgery and will help you understand obesity and how to achieve lasting weight loss.

## 8. **Team Review**

Once all evaluations and labs are done, our team will review your case to see if you're a candidate for our bariatric surgery program. During this time, you will be working to also complete medical clearances. If more steps are needed, we'll let you know.

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# Pathway to Surgery

## 9. Complete Required Medical Testing

Depending on your medical history and surgery type, you may need specific medical clearances. The following are the most common medical requirements:

- **Endoscopy:** Required for gastric bypass or sleeve gastrectomy.
- **Sleep Apnea Testing:** We will assess your risk for sleep apnea at your initial visit. High risk patients must undergo sleep testing, which we will help coordinate. If you are diagnosed with sleep apnea our program requires treatment, which typically means using CPAP. This reduces your surgical risk and risk of heart attack and stroke.
- **Heart Evaluation:** You might need an EKG or to see a cardiologist.

## 10. Other Insurance and Program Requirements

Your insurance might have extra steps before surgery. Our program also requires pre-surgery education classes. Our patient coordinator will guide you through these requirements.

## 11. Increasing Physical Activity

Regular exercise is key to long-term success. Start a routine before surgery. Consistency is more important than intensity. Start slowly and gradually increase your activity over time. Try to move your body in some way every day.

## 12. Practice Healthy Eating Habits

Attend the Nutrition Orientation class and work with your dietitian to learn the bariatric way of eating. Review the guidelines included in this handbook and bring this handbook to each visit.

## 13. Explore Your Relationship with Food

Surgery changes how much you can eat but not your mental or social relationship with food. Long-term success depends on practicing new habits and breaking old ones. You will work with the dietitian and psychologist to identify challenges and develop strategies to do this.

## 14. Preoperative Labs and Prior Authorization

Once you're at your goal weight, and your diet, mental health, and medical requirements are met, you may be required to complete additional nicotine and drug screening. Once we have negative results, we'll request surgery approval from your insurance plan.

## 15. Pre-Operative Class and Appointments

Once we have prior authorization from your insurance company, which can take up to 14 business days, you will be scheduled for surgery. At this time, we will also schedule all your related appointments including a pre-operative nutrition class, anesthesiology appointment, pre-operative appointment with the surgeon, as well as post-operative follow-up appointments at 2 weeks and 6 weeks.

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# Personal Notes

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# Diet & Nutrition

Changing dietary habits is not easy. Our relationship with food starts from the day we are born and is impacted by many factors including our family, friends, culture, environment, access, and finances. It can take a lot of effort to build new food habits that are sustainable. The purpose of this section is to provide basic information about nutrition, how food intake is impacted by bariatric surgery, and strategies to stay healthy while working toward reducing body fat mass.

## **This section will cover:**

- Nutrition Basics: Protein, Carbohydrate, Fat, Fluids
- Tracking & Self-Monitoring
- Vitamins & Minerals Supplementation
- Diet Progression: Before & After Surgery
- Common Concerns after Surgery

The information provided is not meant to include everything you may need to know to meet your individual nutritional needs. Set up an appointment with a dietitian to discuss your health goals.

## **SURGERY AS A “TOOL”**

The smaller stomach after surgery is your “tool” to help you feel full (satiated) with a very small amount of solid food. Although each bariatric procedure offers unique features, they all work by limiting the **amount** of solid food you can eat. However, they will not force you to eat healthy foods or prevent you from eating unhealthy foods.

👇👇 Bariatric surgery helps you limit HOW MUCH, SOLID FOOD you can eat in ONE SITTING 👇👇

### Most common causes of weight regain after surgery

- Liquid calories – this tool does not limit liquids in the long-term.
- Grazing – even after surgery, it is possible to eat small amounts throughout the day.
- Eating out – people who eat out more than twice a week are more likely to regain.
- Refined carbohydrates – foods with low nutritional value do not provide satiety
- Social Support – people who report less social support, are more likely to regain.

Long-term loss of fat mass while maintaining or building skeletal muscle mass relies on finding a balance between eating enough to meet your nutritional needs but not too much. Threading this needle is very challenging! This tool will help you manage portions, but it is up to you to do the rest. People with consistent eating, sleeping and activity routines tend to have better long-term success.

# Proteins

Proteins are large, complex molecules that are essential for your health. Kind of like how words are put together to make up a sentence and tell a story, proteins are made up of long chains of amino acids (words) that are arranged (sentences) to accomplish different tasks (stories) in the body.

## Why Protein is so Important

- Structure: Protein is a building block of every cell in our body.
- Function: Proteins start chemical reactions, move nutrients through our body, and support our immune system.
- Energy: Our bodies can turn proteins into energy (glucose) if it really needs to.
- The body can't produce essential amino acids, and they must be supplied by the diet.

## How protein helps with weight loss

- Protein rich foods are slower to digest; they fill you up and keep you full after meals.
- Getting enough daily protein is important for maintaining muscle during weight loss and increasing muscle mass during maintenance. More skeletal muscle means a higher metabolic rate, which helps to sustain weight loss long-term.

## Where Protein is Found

Meat, poultry, fish and shellfish, eggs, legumes (beans), nuts, seeds, and dairy products are all excellent sources of good quality protein. **Each ounce of meat or cheese provides about 7 grams of protein which is equivalent to ½ cup of beans or ¼ cup nuts.** While grains, fruit, and vegetables do contain small amounts of protein they are not considered primary sources.

Good quality, lean, protein-rich foods will be the cornerstone of your diet for the rest of your life. Having a well-rounded diet that includes a variety of protein types, including plant-based proteins is recommended for good health.

## What about beans?

Legumes (beans, lentils, and peas) are good quality proteins, but it takes half a cup of beans to provide the same amount of protein in one egg or one ounce of meat. However, unlike animal products, beans also provide fiber which can help with constipation after surgery. They also can provide other nutrients that animal proteins don't have. Combining animal and plant sources of protein is a good approach for variety, sustainability, and overall health.



# Proteins

## High Quality Lean Sources of Protein

Source	Portion	Protein (g)	Calories (kcal)
Beans and chickpeas, cooked	½ cup	7-8	110
Beef: ground (extra lean)	1 oz	7	70
Beef: chuck roast (trimmed of fat)		9	70
Cheese	1 oz	7	70
Chicken breast or thigh (roasted, no skin)	1 oz	7-9	50-60
Cottage cheese	¼ cup	8	50
Egg	1	6	75
Egg whites	2	7	30
Fish (cod, salmon, tuna)	1 oz	7	30-50
Ham, lean, cured	1 oz	6	40
Hemp seeds	1 oz (3 Tbsp)	10	160
Lentils, cooked	½ cup	9	100
Nutritional yeast	2 Tbsp	7	50
Nuts (almonds, peanuts, walnuts)	1 oz	6-7	165-175
Pork tenderloin	1 oz	8	50
Shellfish (shrimp, crab, etc.)	1 oz	6	30
Spirulina powder	2 Tbsp	8	40
Tofu, Edamame	½ cup	9-10	90-100
Turkey breast	1 oz	8	50
Tempeh	1 oz	5	55
Yogurt: Greek style	3 oz	7	60-80

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# Proteins

## HOW MUCH PROTEIN YOUR BODY NEEDS

Your body's requirement for protein is highest during the first six to twelve months after surgery. At least eighty grams (80g) of protein per day is recommended. Meeting this protein goal with food alone is very difficult to do, since your stomach will only hold 2 – 3 ounces of food per meal. A protein supplement will be used during this time to help meet the protein goal.

**Your protein goal after surgery is 80 grams per day, ideally no less than 60g per day to meet your basic protein needs.** Since protein foods generally supply about 7 grams of protein per ounce, you will need a total of at least 9-10 ounces of protein rich foods per day to meet your protein needs. In the early stages after surgery, you will need to eat 5-6 times a day to meet this goal.

## The First Six Months After Surgery

Your stomach will feel tightest during the early weeks to months after surgery and you may feel full after eating only a few bites. That is why it is important to **eat the protein rich food first** at meals and eat every 2-3 hours. Initially protein supplements will be used to help you meet your protein needs.

## Weighing and Measuring Protein

After surgery, your eyes will be bigger than your stomach, so it is easy to overestimate the amount of food that you are eating. Use of a food scale and measuring cups is recommended. If that isn't possible, the chart below is a useful guide.



Fist = 1 cup



Palm = 3oz



Thumb tip = 1 tsp



Handful = 1-2oz



Thumb = 1oz

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# Proteins

## Choosing a Protein Supplement

We encourage you to start looking for a protein supplement before surgery. You are required to lose weight prior to surgery to shrink your liver and make your surgery safer. To help you achieve weight loss and optimize your readiness for surgery, you will eat/drink a mostly liquid diet during the weeks prior to surgery. Once you are home after surgery, protein shakes will be your primary source of nutrition.

- Select a protein supplement that is “complete”. It should supply the proper amounts of all the amino acids your body needs to have for healing. Protein powders or drinks made from whey protein, soy protein, or egg white are complete.
- Most, but not all, plant-based protein powders are a blend of grains, nuts, and seed sources of protein and are therefore complete. Please talk with your dietician to check your selection.
- Choose a product that supplies the following per serving:
  - 20 – 30 grams of protein
  - 3 grams or less of sugar
  - 5 grams or less of fat
- Ready-to-drink liquid supplements are okay to use but are often more expensive (gram for gram of protein) than powdered forms. Having some of both on hand is a good idea.
- Beware of liquid protein supplements packaged in small tubes. These are typically made from fortified gelatin or collagen and are not complete proteins.
- Many patients experience taste changes after surgery. Having unflavored and unsweetened protein powder on hand is a good idea. High protein milk is another option if artificially sweetened protein shakes are not tolerated.



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# Carbohydrates

## After protein, what's next? PRODUCE!

### CARBOHYDRATE

Carbohydrates come from plants. They include vegetables and fruit as well as the sugars and starches found in sugar cane, honey, syrups, and grains. In the United States, the most eaten carbohydrates are refined starchy carbohydrates such as breads, pastas, and rice, or from processed sugars such as candy, pastries, and sweetened beverages. These processed foods provide lots of quick energy (easily digestible calories) without many other nutrients.

During the initial weight loss phase after surgery, refined and starchy carbohydrates should be restricted. In the long-term, starchy carbohydrates may be included in small, portioned amounts.

### Why to Limit Refined, Starchy Carbohydrates After Surgery

- Encourages your body to burn its stored fat for energy first.
- Carbohydrate foods **don't keep you feeling full as long after meals.**
- Sugary food can promote "dumping syndrome" after gastric bypass.
- Starchy foods such as bread may leave you feeling bloated and uncomfortable after surgery.
- Carbohydrate foods may stimulate your appetite and result in food cravings.

### The Best Sources of Carbohydrate after Surgery are Vegetables and Fruits

The most nutritious forms of carbohydrates are in whole, complex vegetables and fruits. There are multiple healthful benefits of having produce

- Low calorie content
- High water content which helps moisten protein rich foods
- Excellent sources of essential vitamins and minerals
- Excellent sources of fiber
- Fruits are frequently reported to naturally satisfy a sweet tooth following surgery



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# Carbohydrates

## Alternative Sweeteners

Non-caloric sugar substitutes are acceptable in limited amounts for use following surgery. We highly recommend only consuming small amounts of artificial and low-calorie sweeteners because we still do not know the long-term effects of eating and drinking sugar-free sweetened products. Some research has shown negative impacts on gut health as well as increased sugar cravings.

Generic Name	Marketed As
Aspartame	Equal and Nutrasweet (blue packet)
Monk Fruit	Monk Fruit in the Raw
Saccharin	Sweet 'N Low (pink packet)
Stevia Leaf	SweetLeaf, SteviaClear, NuStevia
Sucralose	Splenda (yellow packet)
Tagatose	Naturlose

**Sugar Alcohols** - Read nutrition labels carefully for carbohydrate information. Many “sugar free” products contain sugar alcohols (e.g., sorbitol, mannitol, xylitol, and erythritol) to add sweetness and are only partially absorbed. Consuming too much sugar alcohol at a time can become problematic; the undigested portion travels to the large intestine and can cause gas, bloating and diarrhea.

## Fiber, Probiotics and Gut Health

Fiber is a carbohydrate but is not absorbed by the body or converted into caloric energy. However, it is important for digestive health, heart health and blood sugar control. Fiber also contributes to satiety and slows the passage of food out of the stomach. We encourage you to aim for enough fiber in your diet to allow for consistent, regular bowel movements.

Our bodies are teeming with microscopic bacteria, most of which is good for you. We call these beneficial bacteria “probiotics”. Fermented foods such as yogurt, sauerkraut, tempeh, kefir, and kimchi are great sources of probiotics.

All foods that contain at least 3 or more grams of fiber will promote the growth of these healthy bacteria. High fiber foods include beans, lentils, vegetables, fruits, nuts, seeds and whole grains. These foods also contain vitamins, minerals, and a variety of antioxidants that benefit overall health. Try to include both probiotic foods and high fiber foods often in your diet.

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# Fats

Fats are supplied in your diet from plant oils (e.g., olive, peanut, corn, and safflower) and animal sources (e.g., butter, cheese, ice cream, meats). Much of the fat eaten in the typical U.S. American diet comes from fried foods, pastries, chips, and other highly processed foods.

## Benefits of Dietary Fats

Fats add flavor, texture, and moisture to foods. They are digested slowly and can help you feel full longer after meals. Use small amounts of fat to help make meals more interesting and enjoyable.

## The Downside of Dietary Fats

All dietary fats are higher in calories. Ounce for ounce, fat provides twice as many calories as carbohydrate and protein. High fat snack foods, such as chips and crackers, add up calories quickly.

## Healthiest Sources of Fat

Extra virgin olive oil, peanut oil, avocados, nuts and seeds, and fatty fish such as salmon and trout.

## A Word of Caution about Nuts and Seeds

Nuts and seeds contain healthy oils as well as fiber and protein. They are a great addition to a healthy diet but be aware that calories can add up quickly. We recommend measuring and portioning when eating nuts and seeds, about 1 ounce or ¼ cup is considered a serving.

Food Item	Amount	Protein (grams)	Fat (grams)	Calories
Almonds	1 oz (about 22)	6	15	170
Cashews	1 oz	4	13	160
Hazelnuts	1 oz (about 20)	4	19	180
Macadamia nuts	1 oz (about 10-12)	2	21-22	200
Mixed nuts	1 oz	5	14-15	170
Peanuts	1 oz (about 28)	6-7	14-15	165
Peanut butter	2 Tbsp	7	16	190
Pecans	1 oz	2-3	21-22	200
Pistachios	1 oz (about 40)	6	13	160
Sunflower seed kernels	1 oz	4-5	11	150
Walnuts	1 oz	7	17	175

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# Fluids

## Recommendations:

**Your fluid goal is 64 ounces of hydrating fluids per day.** Meeting this goal may be difficult immediately after surgery but will become easier over time.

Surgery diminishes your appetite and may also decrease your thirst drive. It is important to drink fluids, even when you don't feel thirsty.

## Follow these suggestions:

- Always carry a water bottle with you.
- Sip fluids slowly and consume between 4 – 6 ounces per hour between meals.
- A sip is not a gulp. After surgery, chugging can lead to pain, regurgitation, or vomiting.
- Do not drink at mealtimes. Stop drinking for 10 minutes before meals and do not drink for 30 minutes after meals. Eating liquids and solids together can cause pain and discomfort. It also causes your pouch to empty more quickly and signals your body to feel hungry sooner.
- Stick mostly with calorie free fluids. Drink water to hydrate and flavored water (e.g., Crystal Light) occasionally as a treat.
- Avoid carbonated beverages which may cause cramping and pain.
- Minimize caffeinated beverages which are often loaded with calories and suppress appetite.
- Minimize consumption of alcoholic beverages. They are high in calories and provide no nutritional value. Additionally, the body metabolizes alcohol differently after weight loss surgery and causes intoxication from much lower amounts, thereby increasing the risk of developing an alcohol use disorder. We recommend that you avoid all alcohol for at least the first 6 months after surgery.
- Monitor for signs of dehydration which includes dark colored urine, low urine output, dry mouth, dry skin and in extreme cases dizziness. Ideally, your urine should be clear and colorless.

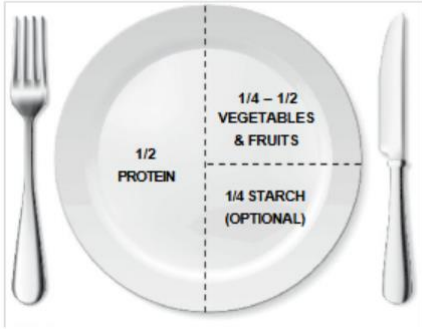


# Meal Composition

For optimal health and weight loss, it is important to prioritize foods high in nutrients at each meal and snack. This means filling your plate with mostly protein and produce.

Use this diagram and list to help you plan meals after surgery:

- Use a **small** plate (no bigger than 6 – 8 inches across).
- Fill **half** the plate with high quality protein foods.
- Fill **half** of the plate with vegetables and fruits.
- If desired, include one serving of starchy foods (e.g., a small potato with skin, 1/3 cup brown rice, or 1/3 cup whole grain pasta). Choose whole grains instead of refined grains whenever possible and stick to the serving sizes listed below.
- Starches are not required and it's okay to have more vegetables and fruits in place of starches.
- Use small amounts of fats and oils to add flavor and moisten foods.



### Starch & Fruit Serving Sizes:

The following fruit and starches represent one serving of carbohydrate (~15g).

Starch	Amount	Fiber (g)	Fruit	Amount	Fiber (g)
Rice (cooked)	1/3 cup	0-1	Apple	1 small	4
Pasta (cooked)	1/3 cup	1	Orange, Kiwi	1 small	2
Bagel	1/4 large	0	Pear	1 small	5
Bread	1 slice (1 oz)	1-2	Banana	1/2 medium	2
Potato, with skin	1/2 medium	2	Berries	1 cup	3-4
Rolled oats, cooked	1/4 cup	2	Blackberries	1 cup	8
Crackers, Triscuits	5 crackers	3	Cherries	12 each	2
Tortilla	6-inch	2	Grapes	3oz (17 small)	1
Corn	1/2 cup	2	Melon	1 cup, cubed	1
English muffin	1/2 piece	1	Pineapple	3/4 cup	2

# Sample Menu

## SAMPLE MEALS

Each day contains roughly 1500 calories, 70-80g protein and 60-80g net carbohydrates.

Meal	Food Group	Number of Choices	Day One	Day Two	Day Three
<b>Breakfast</b>	Protein	3 oz or equivalent	Egg scramble made with 2 eggs and 1 ounce cheese	¾ cup cottage cheese	Protein shake (20-30g protein)
	Fruit or Vegetable	1	Onions and peppers	½ cup canned peaches, rinsed & drained	½ cup frozen berries
	Starch (optional)	1	1 piece of toast (1 oz)	½ toasted English muffin	N/A
	Fat	1	1-2 tsp. butter	1-2 tsp. butter	1 tbsp. nut butter
<b>Lunch</b>	Protein	3 oz or equivalent	Half a turkey sandwich or roll-up using 2 oz deli turkey and 1 oz cheese	Chef salad using 2 oz deli ham and 1 oz cheese	Tuna salad using 3 oz water packed tuna
	Vegetable	1 or more	Lettuce, sliced tomato, and pickles	Mixed salad greens with tomato, cucumbers and mushrooms	Celery sticks
	Fruit (optional)	1	1 small apple	1 small pear	1 small orange
	Starch (optional)	1	1 slice of whole wheat bread	5 croutons	½ whole-wheat pita pocket
	Fat	1	1 tbsp. mayonnaise	1-2 tbsp. salad dressing, 1/8 avocado	1 tbsp. mayonnaise, 1/8 avocado
<b>Dinner</b>	Protein	3 oz or equivalent	3 oz baked salmon	Chicken stir fry using 3 oz chicken with some soy sauce	Soft taco using 2 oz lean seasoned ground beef and 1 oz grated cheese
	Vegetable	1 or more	½ cup cooked broccoli	1 cup assorted vegetables	1 cup chopped lettuce, tomato, and cucumber
	Fruit (optional)	1	1 cup berries	1 nectarine	1 cup cubed melon
	Starch (optional)	1	½ medium baked potato	½ cup brown rice	1 6-inch tortilla
	Fat	1	1 tbsp. butter	1 tbsp. olive oil used in stir-fry	2 tbsp. sour cream

# Nutrition Tracking

## Self-Monitoring

Research shows that people who occasionally track what they are eating are more likely to keep their weight off long term. It also ensures you are meeting your protein goals after surgery.

### Helpful tips:

- Choose how you want to track. Some people use a food journal, others use an app on their phone, and some people take pictures of their meals throughout the day. Do whatever you feel most comfortable with.
- Keep your food journal with you throughout the day and record everything you eat and drink. Pay attention to food choices, portion sizes, and time of day. You can also include notes about how you are feeling and any other information that may be useful. This is a judgement free exercise. It is a *tool* to help you better understand your patterns.
- If you have a bad day, try writing it down anyway to help you stay accountable. Treat this as a learning experience. What could you do differently next time?
- You do not have to track every single day – even a few days a week can be helpful.

### Recommended Tracking Apps:

- Baritastic - Highly recommend!
- MyFitnessPal
- Lose It!

## How to read a Nutrition Facts label:

When eating packaged foods, it can be difficult to know the nutrient content just by looking at the front. In fact, many products are marketed to appear to be healthier than they are! Reading and nutrition labels, along with tracking, are very important tools for health and weight loss.

Tips:

1. Always start at the top. Take note of servings size and servings per container so you know what the numbers are describing.
2. Calories are often in the 150-250 range. This can sometimes be misleading because the serving size is so small. Take note but don't make decisions solely on calorie content.
3. Look at protein and carbohydrates! Ideally, you are choosing foods with protein and fiber, with less sugar and carbohydrates.

**1.** Serving Information →

**2.** Calories →

**3.** Nutrients →

**4.** Quick Guide to percent Daily Value (%DV)  
 • 5% or less is **low**  
 • 20% or more is **high**

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

\*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

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# Bariatric Guidelines

Losing fat mass, building and maintaining muscle mass requires a long-term commitment to a new way of approaching eating, drinking and activity. Below are some tips to keep you on track.

## **Dietary Recommendations:**

- Eat at least 3 times per day. Do not skip eating. It will take small, frequent meals to meet your body's nutritional needs.
- Include a lean protein source with each meal and eat it first. Aim for 80g or more of protein per day. To avoid malnutrition, you should not eat less than 60g of protein for any extended period.
- Focus on "protein and produce" at meals. Limit starchy carbohydrates such as crackers, bread, pasta, and rice to no more than one serving per meal.
- Focus on "whole foods", which describes foods that are less processed, whenever possible.
- Reduce portion sizes. Make less and serve less. Use a small plate (6 – 8 inches across) to help.
- Eat slowly (one bite per minute) and chew food well. Put your utensil down between each bite and stop eating at the first sign of fullness. No more clean plate club.
- Avoid grazing, mindless eating, boredom eating. Follow an eating schedule and plan protein and produce meals/snacks accordingly.
- Consume at least 64 oz of hydrating fluid per day. Fluids should be mostly calorie free, non-caffeinated and non-carbonated. Drinks that have calories often lead to weight regain after surgery. Carbonation can cause abdominal pain, reflux, and possibly stretch the pouch.
- Don't drink fluids with your meals and wait 30 minutes after. Make sure that you are sipping on water throughout the day between meals. Staying hydrated is important for health and safety.

## **Avoid:**

- Alcoholic beverages: We recommend you abstain from all alcohol for the first 6 months after surgery. Beyond that, it should be consumed sparingly and rarely.
- Fast foods/Eating out: People who eat food prepared outside of their home more than twice a week are more likely to regain their weight after surgery.
- Snacky foods: Low quality, refined foods such as chips, candy, pastries, etc. do not help us feel full and are very easy to overeat. They should not be part of your daily diet.

## **Lifestyle Recommendations:**

- Move your body every day. Regular physical activity is the best way to reduce stress, burn stored fat and maintain muscle mass during weight loss.
- Get adequate sleep. Aim for at least 7 hours each night.
- Learn to manage stress in healthy ways.
- Take your nutritional supplements as recommended.

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# Personal Notes

# Vitamins & Minerals

Vitamin and mineral supplements are essential after bariatric surgery and are **required for life** to prevent nutritional deficiencies due to reduced food volume and malabsorption. Deficiencies typically occur many months or years after surgery. The following information is intended only as a *guide* for vitamin/mineral supplementation after bariatric surgery. You should discuss any special circumstances or changes to your vitamin/mineral regimen with your surgical provider or dietitian.

## Summary of ASMBS Micronutrient Recommendations

What?	Why?	How Much?	Important Information
Complete Multivitamin with Iron	To prevent vitamin deficiencies due to reduced food volume and altered absorption	2 doses per day	The first bottle after surgery should be chewable or liquid. No Gummies.  See the multivitamin handout for specific vitamin and mineral requirements  If you choose a bariatric multivitamin, you won't need to take as many separate supplements.
Iron	To prevent iron deficiency anemia since iron from food is not absorbed as well after surgery	30-45 mg/day from all sources.  Most people get enough from their iron-containing multivitamin.	Make sure your multivitamin contains at least 18-27mg per serving.  If you have a history of anemia, you may need a separate iron supplement to prevent deficiency
Calcium Citrate	To maintain bone health and prevent osteoporosis	1000-1200 mg/day from supplements	Only 500-600mg of calcium can be absorbed at one time. Split doses for best absorption.  For best absorption, take 2 hours apart from iron-containing supplement.
Vitamin B12	To prevent vitamin B12 deficiency anemia	350-500 mcg / day  OR  2500-3500 mcg/week	Very little vitamin B12 from food is absorbed after surgery  Oral sprays, drops, dissolvable tablets, and sublingual are best absorbed
Vitamin D	To help with calcium absorption and bone health	3000 IU (75 mcg) / day	Vitamin D should be taken to achieve adequate levels (> 30 ng/mL). Higher doses may be needed to correct deficiencies.

# Vitamins & Minerals

When choosing vitamins, you may either purchase traditional vitamins or those formulated specifically for bariatric surgery. If you choose a bariatric specific multivitamin, you may not need to take as many separate supplements. Ask your dietitian for more information.

Option 1: Costs Less	Option 2: Fewer Pills
Standard Complete Multivitamin with Iron Vitamin B-12 Vitamin D Calcium Citrate	Bariatric Multivitamin with Iron Calcium Citrate

Supplements come in many forms including liquids, soft chews, chewable tablets, capsules, dissolvable tablets, oral sprays, and injections. For best absorption we recommend AGAINST gummies and patches, as they cannot consistently provide adequate vitamins and minerals and may not be worth the money you are spending on them.



## **MULTIVITAMIN with IRON (Standard or Bariatric)**

### **Choose One:**

1. Complete Multivitamin with 18mg of iron, take two (2) per day.
2. Bariatric Multivitamin with iron, dosage depends on product. Read the label.

### **Considerations:**

- First bottle after surgery should be chewable or liquid. NO GUMMIES.
- You may switch to a pill form after your first bottle is finished (around 2 – 3 months)
- You do not need to take your multivitamin in divided doses.
- Take your multivitamin with food for best absorption and tolerance.
- Calcium supplements must be taken at least 2 hours away from iron-containing multivitamin.



## **CALCIUM CITRATE**

**Dose:** Two (2) doses of 500 mg per day from supplements. You need a total of 1000 – 1200 mg of calcium per day from supplements unless otherwise directed by a provider.

### **Considerations:**

- Choose calcium citrate over other forms, this is absorbed best after bariatric surgery.
- Choose a chewable wafer, soft chew, or liquid for the first 2 – 3 months.
- You may switch to a tablet after the first 2 – 3 months if desired.
- Only ~ 500 mg of calcium can be absorbed at one time so it must be taken in divided doses.
- Take separately from your iron supplement or multivitamin with iron by 2 hours.

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# Vitamins & Minerals

Take these only if using a standard multivitamin that does not meet the doses listed below. If you are taking a complete bariatric multivitamin, you likely do not need additional supplementation beyond a separate calcium as listed on the previous page.



## **IRON**

**Dose:** Total of 30-45 mg per day, from all supplement sources. If there is enough iron in the multivitamin, you do NOT need to take additional iron.

### **Considerations:**

- Menstruating people and those with a history of anemia are at highest risk for deficiency.
- Take iron with food for best tolerance.
- There are many types of iron. Ferrous fumarate, ferrous gluconate, and carbonyl iron may be better tolerated and less constipating than ferrous sulfate.



## **VITAMIN B12**

**Dose:** 350 – 550 mcg per day (or 2500 – 3500 mcg per week)

### **Considerations:**

- This can be taken with your multivitamin or any other supplement.
- If you choose a bariatric supplement, you likely don't need a separate Vitamin B12
- Oral supplementation (spray, liquid, sublingual, dissolvable) are best absorbed.
- Doses may be listed in micrograms (mcg or µg) or milligrams. 1000 mcg = 1mg
- Long-term vitamin B12 deficiency can lead to nerve damage.



## **VITAMIN D3**

**Dose:** 75mcg (3000 IU) per day from all sources

### **Other information:**

- Take Vitamin D with a fattier meal, if possible, for better absorption.
- If you choose a bariatric supplement, you likely don't need a separate Vitamin D
- This can be taken with your multivitamin and any other supplement, if desired.
- Vitamin D is important for bone health as well as supporting your immune system and brain health. Be sure to maintain blood levels above 30 mg/mL but below 80mg/mL unless otherwise directed by your health provider.

# Diet Progression: Overview

Diet Progression Overview	
Two weeks before surgery	Start pre-operative high protein diet
One week before surgery	Transition to pre-operative liquid, high protein diet
Day before surgery	Nothing to eat or drink after midnight
In the hospital	<b>Stage 1</b> diet (clear liquids) Advance to protein shake before discharge
Weeks 1 & 2	<b>Stage 2</b> diet (protein shakes + pureed)
Weeks 3-6	<b>Stage 3</b> diet (soft protein foods) Start the slow transition from liquid protein drinks to soft, solid protein foods
Weeks 6+	<b>Stage 4</b> diet (solid foods) Gradual transition to solid foods as tolerated; can start to decrease protein shakes as solid food intake increases

## TWO WEEKS PRIOR TO SURGERY

- Start the pre-operative meal plan (see next page)
- Stop taking all vitamins, minerals, and herbal nutrition supplements.
- Continue to take your medications unless directed by your surgeon.
- Make sure you have a protein supplement (powder and/or ready-to-drink) that you like.
- Small supply of Stage 2 foods.

# Diet Progression: Before Surgery

Restricting dietary fat and sugary/starchy carbohydrates before surgery will shrink the liver and make your surgery safer.

## High protein diet: start two weeks before surgery:

- Consume "protein and produce" 3-5 times per day.
- At least ONE mini-meal should be a high protein shake.
- No starchy carbohydrates or sugar: desserts, juice, bread, rice, pasta, potatoes, corn.
- No high-fat items such as alfredo or heavy creams.

Sample Menu:		Protein (g)	Calories
Breakfast	Low calorie protein drink	20-30	150-200
Snack	Cheese stick	6	80
Lunch	2 oz turkey + 1 oz cheese, bell peppers	20-30	150-250
Snack	<u>Small</u> apple or orange	0	70
Dinner	3 oz chicken or fish with broccoli	20-30	150-250
Totals		60-100	600-900

## High protein, pureed diet: start one week before surgery:

- Consume protein 3-5 times per day.
- All food must be liquids or pureed consistency, nothing that requires chewing
- At least TWO "meals" should be a high protein shake.
- No starchy carbohydrates or sugar: desserts, juice, bread, rice, pasta, potatoes, corn.
- No high-fat items such as alfredo or heavy creams.

Sample Menu:		Protein (g)	Calories
Breakfast	Low calorie protein drink	20-30g	150-200
Snack	High protein yogurt	15g	100-150
Lunch	Pureed soup with milk/protein powder	20-30g	150-200
Snack	½ cup cottage cheese	10-15g	100
Dinner	Low calorie protein drink	20-30g	150-200
Totals		60-100g	600-900

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# Diet Progression: Stage 1

## **DAY BEFORE SURGERY**

- **Nothing to eat or drink after midnight.**
- Protein shake for last meal or snack the night before surgery.

## **DAY OF SURGERY**

- No food or fluids. This includes water and ice.
- If you are instructed to take medications in the morning of surgery, take with a sip of water.
- You will have an IV placed during surgery to provide fluids on the day of surgery.

## **EATING IN THE HOSPITAL**

Stage 1 begins after surgery:

- Consists of clear, sugar-free, caffeine free, non-carbonated fluids such as water, broth, decaffeinated tea, ice chips, sugar-free Jell-O, or other sugar-free beverages
- Hydration is the most important goal at this stage.
- Sip fluids slowly. The goal is to consume 1 ounce (a full medicine cup) every 30 minutes.
- Record your fluid intake on the self-monitoring form provided to you.
- Sit up while eating and drinking to help reduce nausea.
- Reminder: your new pouch is only about an ounce to start, and you may feel full after consuming only a few sips.

Prior to discharge:

- Increase your fluid intake to 1 ounce (a full medicine cup) every 15 minutes in preparation for discharge. This is about 4 ounces or ½ cup every hour to maintain hydration.
- Continue to record your fluid intake on the self-monitoring form.
- You must be able to tolerate a protein drink prior to discharge. You are welcome to bring a protein shake from home that is the flavor and brand you prefer as the hospital has limited flavor options available.
- You will be discharged when you are stable, your pain and nausea are managed, and you are able to hydrate adequately.

# Diet Progression: Stage 2

**When to start:** After the hospital until 2 week visit, once cleared by your surgical provider.

**PROTEIN SHAKES AND SMOOTH FOODS**

The purpose of stage 2 is to allow your pouch to rest and heal. Most of your nutrition during this period will come from a high protein liquid supplement. You should try to reach at least 60g of protein daily, though many people fall short these first few weeks. Take it slow and do your best. Your capacity will increase over time as the pouch heals.

Stage 2 – Allowed Foods	
Protein Sources	Protein shakes, made with water or milk of choice Yogurt (At least 12g protein with < 14g sugar, no chunks) Broth or strained soups boosted with protein powder
Fruits	No sugar added applesauce
Starches	None
Other	Sugar-free popsicles Sugar-free Jell-o Sugar-free pudding
Beverages	Water Decaffeinated tea Flavored water/sugar-free drinks Sugar-free electrolyte drinks/powders Non-carbonated beverages only

**Foods to Avoid:**

- All solid foods (unless listed above)
- Juices and sugar-sweetened beverages
- Carbonated beverages
- Caffeinated beverages

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# Diet Progression: Stage 2

## Remember to stay hydrated!

- Aim for 64 oz fluids per day. At least 48 oz must come from clear fluids such as water or decaffeinated tea.
- Sip fluids often to keep up with hydration. Remember that it is difficult to “catch up” on hydration once you are behind due to the size of your new stomach. Aim for at least 4-6oz per hour through the day.
- If you experience nausea try sipping on mint or chamomile tea.



## Do your best to reach at least 60 g protein per day.

- Chilling your protein supplement can reduce the sense of sweetness, which is a frequent complaint from patients following surgery.
- Sip on small amounts of protein shake, frequently through the day to meet your protein goal.
- For variety, add ice and a small amount of fruit (1/4 cup berries) to your protein supplement and blend until smooth. If this is not well tolerated, return to thinner liquid shakes.
- Meeting water and protein goals can be a challenge. Hydration is more important than protein at this stage. Make sure you are drinking clear liquids in addition to your protein shake to help prevent dehydration.

### Physical Activity During Stage 2

- Light activity such as walking is encouraged to promote wound healing, circulation, and bowel function. Start slowly at 5-10 minutes a few times per day and increase gradually.
- Avoid strenuous activities.
- Avoid swimming pools for the first 4 weeks after surgery to allow your incisions to heal.
- Lifting restrictions are in place for the first 6 weeks after surgery. Please do not lift, push, or pull more than 10 pounds. Avoid bending and twisting at the waist.

# Diet Progression: Stage 2

## STAGE 2: PUTTING IT ALL TOGETHER

Remember your pouch is very small and tight. It is expected that you will need to eat/drink protein every 2-3 hours to meet your goals. A “meal” typically lasts about 20-30 minutes or until you feel full. Do not push to finish protein foods or try to spread them out over long stretches. Once you are full (satisfied without pain or discomfort) then stop and try to eat/drink again in 2-3 hours.

Focus on hydration between the times you are drinking protein.

Here is an example of what a day might look like during Stage 2:

Time	Food	Fluids	Protein	Notes
7:00 AM		8 oz water or tea		Practice sips
7:30-8:00	1 protein shake		25 g	
8:30-10:45		12 oz water		Walk every hour
11:00-11:30	2-3 oz Greek Yogurt		7 g	
12:00-2:15		12 oz water		Walk every hour
2:30-3:00	1 cup chicken broth with ½ scoop of unflavored protein powder		15 g	
3:30-5:45		12 oz water		Walk every hour
6:00-6:30	1 protein shake		25 g	Short walk after dinner
7:00-7:30	½ cup unsweetened applesauce			
8:00 PM		8 oz herbal tea		
		<b>52 oz</b>	<b>70 g</b>	



# Diet Progression: Stage 3

**When to start:** At your 2-week postoperative visit until your 6-week postoperative visit.

**SOFT PROTEIN FOODS**

Stage 3 is the **gradual** transition from liquid supplements to soft protein foods. You will feel full after eating only a few bites which is normal at this stage. Focus on getting in enough protein and fluid.

Stage 3 Allowed Foods	
<b>Protein Sources</b>	<ul style="list-style-type: none"> <li>▪ Protein shakes (made with water or milk of choice)</li> <li>▪ Yogurt (at least 12g protein, less than 14g sugar)</li> <li>▪ Cottage/Ricotta cheese</li> <li>▪ Cheese</li> <li>▪ Tofu</li> <li>▪ 100% almond or peanut butter (small amounts)</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Tuna salad</li> <li>▪ Chicken salad</li> <li>▪ Eggs or egg salad</li> <li>▪ Slow cooked chicken or turkey. Use broth to moisten.</li> <li>▪ Refried or soft-cooked beans</li> </ul>
<b>Vegetables</b>	Soft, cooked or canned vegetables (no corn or potatoes)
<b>Fruits</b> (Less than ½ cup per day)	<ul style="list-style-type: none"> <li>▪ Soft fruits, no skins or seeds. Includes avocado</li> <li>▪ Applesauce, no sugar added</li> </ul>
<b>Starches</b>	None
<b>Other</b>	<ul style="list-style-type: none"> <li>▪ Sugar-free popsicles</li> <li>▪ Sugar-free Jell-o or pudding</li> </ul>
<b>Beverages</b>	<ul style="list-style-type: none"> <li>▪ Water</li> <li>▪ Decaffeinated tea</li> <li>▪ Flavored water/sugar-free drinks</li> <li>▪ Non-carbonated beverages only</li> </ul>

**Foods to Avoid:**

- Beef, pork, and wild game are often not well-tolerated in the early weeks after surgery.
- Juices and sugar-sweetened beverages
- Carbonated beverages
- All starches: crackers, rice, pasta, bread, potatoes, tortillas, etc.
- Sweets and snack foods: ice cream, chips, cakes, cookies, candy, etc.
- Alcohol

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# Diet Progression: Stage 3

## HELPFUL TIPS FOR STAGE 3

### **Start by adding soft protein foods.**

- Continue to drink at least one protein supplement per day while introducing solid foods. This will ensure that you are able to meet the protein goal during this stage.
- Start with very **moist** protein sources such as cottage cheese or scrambled eggs. Chicken salad, tuna salad, cooked beans and egg salad are other great options.
- Start with 1 – 2 oz of protein foods per meal. Eventually work up to about 3 oz per meal.
- Your new pouch can't grind and churn foods like your old stomach. Cut meat into small pieces and chew well. Cooking meat in a crock or Instant pot will help make the meat easier to digest.
- Add moisture in the form of broths, marinades, and light sauces. Sauces can add a lot of flavor and moisture, but heavier, fattier sauces can lead to nausea.

### **After you are tolerating your protein foods well, add soft fruits and vegetables.**

- Start with soft, cooked vegetables. Raw veggies may not agree with your pouch at this point. Avoid starchy vegetables such as potatoes and corn.
- When adding fruits, start with soft fresh or rinsed canned fruits without large seeds, skins, or membranes. Applesauce, a few slices of banana or melon are good choices to start.

### **Helpful tips for Stage 3:**

- Avoid starches such as crackers, potatoes, bread, rice, pasta, and tortillas. These are usually not well-tolerated and are not a priority at this stage.
- Try one new food at a time. If something doesn't agree with you, try it again later.
- Do not skip meals even if you don't feel hungry. Lack of appetite is common at this stage. If you skip a meal, you will not be able to meet your protein goals.
- Eat slowly at each meal and stop at the first signs of fullness. Chew food until it is close to paste-like (the consistency of applesauce) before swallowing.
- Don't drink and eat together. Stop drinking for 10 minutes before and wait 30 minutes after.
- Introduce supplements 2-4 weeks after surgery. Try them one at a time, starting with your multivitamin. Take with a meal for best tolerance. If you are struggling with nausea, stop supplements until you are feeling better. Avoid taking supplements on an empty stomach.

# Diet Progression: Stage 3

## Stage 3 Diet: Putting it All Together

During stage 3, you will likely still need to eat 4-5 times a day to meet your nutritional goals. Continue to practice stopping with first sign of fullness, which indicates the end of the meal. Do not push to finish protein foods or try to spread them out over long stretches.

Focus on hydration between the times you are eating/drinking protein.

Here is an example of a day in Stage 3:

Time	Food	Fluids	Protein	Notes
7:00 AM		8 oz water or tea		Hydrate first!
7:30-8:00	1 scoop protein powder, 1 cup milk, blended with 2 strawberries		25 g	
8:30-10:45		16 oz water		
11:00-11:30	½ cup tuna salad made with light mayonnaise		16 g	15-minute walk after lunch
12:00-2:15		16 oz water		
2:30-3:00	½ cup cottage cheese		12 g	
3:30-5:45		16 oz water		
6:00-6:30	2-3 oz crock pot chicken		21 g	15-minute walk after dinner
7:00-7:30	1 sugar free pudding		1 g	
8:00 PM		8 oz herbal tea		
		<b>64 oz</b>	<b>75 g</b>	

### Physical Activity During Stage 3

- Continue to walk as much as you can. Short walks several times per day may be easier than longer walks. Gradually increase to at least 30 minutes total per day.
- Lifting restrictions remain in place. Please do not lift, push, or pull more than 10 pounds. Continue to avoid strenuous activities. Avoid bending and twisting at the waist.
- You may resume swimming 4 weeks after surgery.

# Diet Progression: Stage 4

**When to start:** At your 6-week postoperative visit.

## STAGE 4: REGULAR SOLID FOODS

Stage 4 is gradually moving toward the healthy, balanced “protein and produce” diet you will follow after surgery. At this stage, food tolerance should be better, and nausea should be resolved. If you have nausea after eating during this stage, that typically means you are not chewing well enough, are eating too much, too fast or the food is too heavy to tolerate.

Over time, appetite will increase, and you will eat larger portions of solid foods per sitting.

### Suggested Food List - Stage 4

<b>Foods to Include Daily</b>	Lean proteins	Prioritize lean, unprocessed proteins every day. Include both plant-based and animal-based proteins for variety and optimal nutrition. Limit processed meats such as sausage, bacon, jerky, and pepperoni.
	Vegetables	Start adding salads and raw vegetables. Include a variety of colorful vegetables in your diet each day. For some people, lettuce remains poorly tolerated.
<b>Foods to Include in Moderation</b>	Fruit	Fruit can be a good source of fiber, vitamins, and minerals but can be high in sugar. Limit to 2 servings per day.
	Starches	Focus on whole grains such as quinoa, oats, barley, and brown rice. Limit starches to 1 serving (15g net carb) per meal/snack. Even after surgery, you should measure portion sizes because these foods are easy to overeat. See page 20 for information on serving sizes.
	Caffeinated Beverages	Limit to 1 serving per day and minimize specialty coffee, tea, or energy drinks that are high in sugar.
<b>Foods to Limit</b>	Liquid calories	Liquids don't provide the same fullness as solid foods, leading to extra calories that can add up quickly.
	Beverages with artificial sweeteners	Artificially sweetened beverages can lead to increased sugar cravings and long-term effects are unknown. Water or tea should be your primary beverage.
	Highly processed carbohydrates	Sweet treats such as candy and cookies as well as chips are very easy to overeat, even after surgery. They provide extra calories, don't fill us up, with little nutrition. These should not be part of a daily routine and instead as rare treats to be enjoyed in small amounts occasionally.

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# Diet Progression: Stage 4

## HELPFUL TIPS FOR STAGE 4

- Follow a structured eating pattern with 3 meals per day with a planned snack. Most people need to eat 4x a day in the long-term to get enough protein and fiber. **Do not skip meals.** If you skip a meal, you will not be able to meet your protein goals, and you may overeat later in the day.
- Plan your meals and snacks. Avoid mindless eating as this can quickly add up.
- You may add small amounts of whole grain foods (brown rice, quinoa, barley) at this point if you are able to tolerate them. Limit to 1 serving (~15g net carb) per meal and make sure to prioritize **protein foods and vegetables first.**
- Choose “whole foods” as much as possible. These are digested slowly and are more nutrient dense than processed foods.
- Eat a variety of foods. A varied diet is more interesting and provides complete nutrition which will be more sustainable in the long term. If your diet starts to feel boring, try new recipes or eat seasonally.
- Practice mindful eating: eat slowly and stop at the first sign of fullness. Try to limit distractions during mealtimes.
- Track your intake, at least a few times per week, to help ensure you are meeting your nutritional needs.
- Separate fluids from meals.
- Continue to limit liquid calories. Liquids don't provide the same fullness as solid foods, leading to extra calories that can add up quickly.
- Be careful with alcohol. We recommend abstaining for at least the first 6 months. Alcohol is absorbed quickly, and you can become intoxicated with very small amounts. Drinking alcohol favors fat storage in the body and weight gain.



# Diet Progression: Stage 4

## Stage 4 Diet: Putting it All Together

Each meal and snack should have “protein and produce” as the priority.

Here is an example of a day in Stage 4:

Time	Food	Fluids	Protein	Notes
7:00 AM		8 oz warm water with lemon		Water first!
7:30-8:00	2 scrambled eggs with ¼ avocado and salsa		20 g	Calcium citrate
8:30-10:45		16 oz water		
11:00-11:30	2 oz turkey, 1 oz cheese with a pickle wrapped in lettuce		21 g	Calcium citrate
12:00-2:15		16 oz water		Walk after lunch
2:30-3:00	2 Tbsp peanut butter with celery		7 g	
3:30-5:45		16 oz water		
6:00-6:30	Taco salad with 2 oz lean meat, 1 oz cheese, lettuce, tomato		25 g	Multivitamin
7:00-7:30		8 oz herbal tea		Walk after dinner
		<b>64 oz</b>	<b>75 g</b>	

- Physical Activity During Stage 4**
- Lifting restrictions are no longer in place.
  - For good health and sustained weight loss try to be active every day. A combination of aerobic and resistance training is ideal.
  - Follow intense exercise days with light movement such as yoga or stretching.
  - Work up to a goal of 150 minutes of moderate intensity exercise per week.



# Common Concerns after Surgery

## Constipation

Constipation is common after bariatric surgery because it can be difficult to drink enough water and you are eating less food overall.

If it is a problem for you then you can try the following:

Type of Constipation	What to do	Products
<b>Acute/ Occasional</b>	<p><b>Ensure adequate fluids:</b> at least 64 oz/day.</p> <p><b>Daily Exercise:</b> Even low-impact exercises, such as walking, can help stimulate the contraction of intestinal muscles to promote bowel movements.</p> <p>Try drinking warm water to stimulate the colon. If this doesn't work, you may try an over-the-counter medication.</p>	<p>Try in the following order:</p> <ol style="list-style-type: none"> <li>1. MiraLax</li> <li>2. Stool softener (docusate)</li> <li>3. Milk of Magnesia</li> </ol>
<b>Chronic/ Long term</b>	<p><b>Ensure adequate fluids:</b> at least 64 oz/day.</p> <p><b>Daily Exercise:</b> Even low-impact exercises, such as walking, can help stimulate the contraction of intestinal muscles to promote bowel movements.</p> <p><b>Bulk up your stool:</b> While fruits and vegetables, and whole grains are the best source of fiber, you may need a regular fiber supplement after surgery until you can eat these foods in larger amounts.</p>	<p>Metamucil (<i>sugar-free</i>)</p> <p>Citrucel (<i>sugar-free</i>)</p> <p><b>Tips:</b></p> <ul style="list-style-type: none"> <li>▪ Always mix powdered fiber supplements with fluid before taking.</li> <li>▪ Avoid tablet or chewable forms of fiber supplements.</li> </ul>

## Dumping Syndrome

Dumping syndrome is a very unpleasant physical reaction that can occur shortly after eating high-fat or high-sugar food. More commonly seen after gastric bypass, some people with sleeve gastrectomy report experiencing dumping. It results when a high-sugar or high fat food passes rapidly from the small stomach pouch into the small intestine. The intestine adjusts by drawing in fluid to dilute the sugar or fat load. This can trigger a variety of symptoms including nausea, sweating, abdominal cramping, lightheadedness, weakness and diarrhea. The treatment is to lie down until the symptoms resolve.

Dumping is a very unpleasant experience; it can provide a powerful negative message from your new tool to avoid specific foods. However, not every patient dumps and the severity of dumping generally diminishes over time. You cannot rely on intolerance to tasty foods to keep you from eating them in the long term.

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# Common Concerns after Surgery

## Excess Gas

Excess gas is common following gastric bypass surgery. This occurs because food may not be digested as well, so bacteria in the gut can cause more gas. Over the counter products such as simethicone drops (Mylicon), Bean-O, or Gas-X are okay to use. Certain foods can trigger more gas production in the lower GI tract. You can set up an appointment with a dietitian to discuss if this is an issue for you.

## Nausea

Mild nausea is common during the early weeks after surgery which is why you are prescribed anti-nausea medications prior to surgery. Make sure you stay hydrated because dehydration can make nausea worse. Ideas for managing nausea after surgery include:

- Take prescribed anti-nausea medication.
- Sip herbal teas, such as peppermint or chamomile
- Taking a walk may help calm a queasy stomach.
- Diaphragmatic or “belly” breathing has also been shown to reduce nausea. This involves putting one hand on your belly while slowing breathing in through your nose as your belly expands followed by a slow exhale through the mouth, letting the belly sink back in.
- Make sure you have regular bowel movements. If you are constipated, nausea can worsen.

If nausea is triggered after eating or drinking, this is often a sign to eat or drink even slower. Focus on smaller bites, chewing food longer before swallowing, and sticking with easier to digest foods. The pouch can be very finicky, tolerating a food one day but not the next.

## Vomiting

Vomiting is usually the result of eating or drinking too quickly, eating too much at one time, not chewing well enough, or not separating solids and liquids. Make sure you are taking plenty of time at meals and chew thoroughly.

## Hair Loss

Hair shedding may occur between 3 – 5 months after surgery due to the stress from surgery causing a disruption to the normal hair growth cycle. This hair shedding usually lasts for a short period of time and goes away on its own within a few months.

Hair loss that starts more than 6 months after surgery or lasts for more than a year after surgery may be caused by nutritional deficiencies. To help prevent hair loss make sure you are getting enough protein in your diet and taking your supplements as recommended. Talk with a dietitian if this is a concern you are experiencing.

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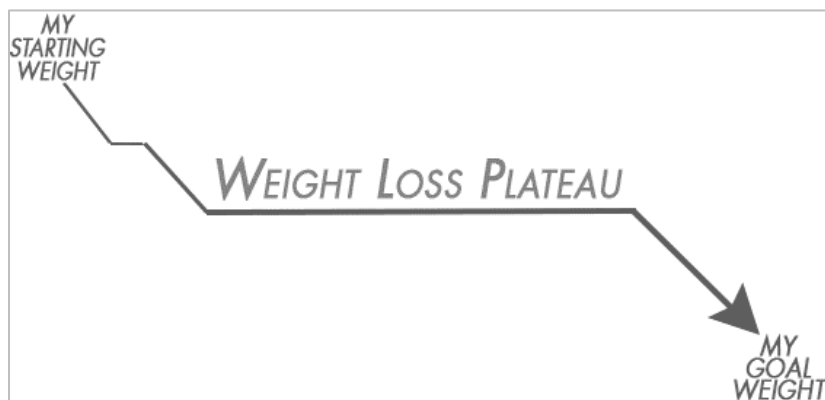
# Common Concerns after Surgery

## Weight Loss Plateaus

Remember that weight loss does not happen at a constant rate. Weight loss is most rapid in the first 6 months, then it happens more slowly. Around 12 – 18 months weight loss will slow, and you may even gain a small amount back. Everyone will experience plateaus at some point along their weight loss journey. Plateaus are **normal** and **expected** as your body adjusts to change.

Here are some tips to get through:

- Take this time to evaluate your diet and exercise routine. Refer to the bariatric eating guidelines to ensure that you are following all the dietary recommendations. If you feel you are doing everything right just be patient and stay the course. Your body likely just needs time to adapt.
- Focus on non-scale victories, such as your clothes fitting better, to help you stay motivated. You can also use a tape measure to track changes in your arms, waist, and legs. Schedule a visit with a dietitian to do your body composition again to see the progress you've made since surgery.
- Do not compare yourself to others on social media. Realize that everyone's weight journey is unique to them and several factors influence speed and amount of weight loss.
- If you continue to struggle with weight loss, schedule an appointment with a dietitian to make sure that you are on track. We want you to get the most out of your surgery and are here to help you along the way.



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# Behavioral Health Tools

Building new routines takes a consistent effort over time to see the results we want to see. The good news is our minds and bodies are very flexible and adaptable. The purpose of this section is to provide tools, strategies, and ideas for practicing health which will lead to long-term improved health.

## **This section will cover:**

- Expectations & The Importance of Failure
- Stages of Change
- Coping Skills
- Sleep
- Exercise
- Emotional Eating

The information provided is not meant to include everything you may need to feel successful after surgery.

If you find you are struggling, either call us for support, or set up your own ongoing mental health care.



***“Don’t forget – the brain is stronger than the stomach!”***

## **EXPECT CHALLENGES after surgery - that does NOT mean you will fail.**

Usual challenges include:

- Feelings of anxiety or nervousness before and after surgery
- Feelings of sadness or grief over the loss of food as a source of emotional comfort or relief
- Belief in the magical appearance of new routines after surgery.
- Belief in a fantasy that physical activity will be easy after surgery.

These are TYPICAL experiences; they do not mean you are not ready for surgery. Change is a process that involves managing expectations and coping with failures.

Self-criticism can create obstacles. When the inner critic is put in its place, failures and mistakes can become opportunities for learning and growth.

“True belonging and self-worth are not goods; we don't negotiate their value with the world. The truth about who we are lives in our hearts. Our call to courage is to protect our wild heart against constant evaluation, especially our own.”

~ Brené Brown

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# Expectations & Failure

**Definition of Failure: The absence of an expected or required action.**

🌱🌱🌱 Notice that there is no moral judgement in this definition 🌱🌱🌱

Is it possible to fail this surgery? **No**

- The surgeon creates a tool (which is a small stomach)
- Even patients who never reach their weight loss goal see improvements in health

Is it possible to regain weight after surgery? **Yes**

- About 5 in 100 do not lose as much weight as expected and about 19 in 100 lose weight and then regain some weight back (aka "weight recurrence").
- People who regain weight after surgery report a poor-quality diet with excessive calories, snacks and sweets, a sedentary lifestyle and tend to have missed follow-up appointments.

Is it possible to fail at fully preparing for surgery, mentally and emotionally, and still be cleared? **Yes**

- There's no moral judgment about that. We are here to support you along the way.
- Choices are based on readiness for change and awareness for accessing resources.

Is it possible to fail at doing what is needed to avoid weight recurrence? **Yes**

- There's no moral judgment about that. We are here to support you along the way.
- Choices are based on readiness for change and awareness of resources and tools.



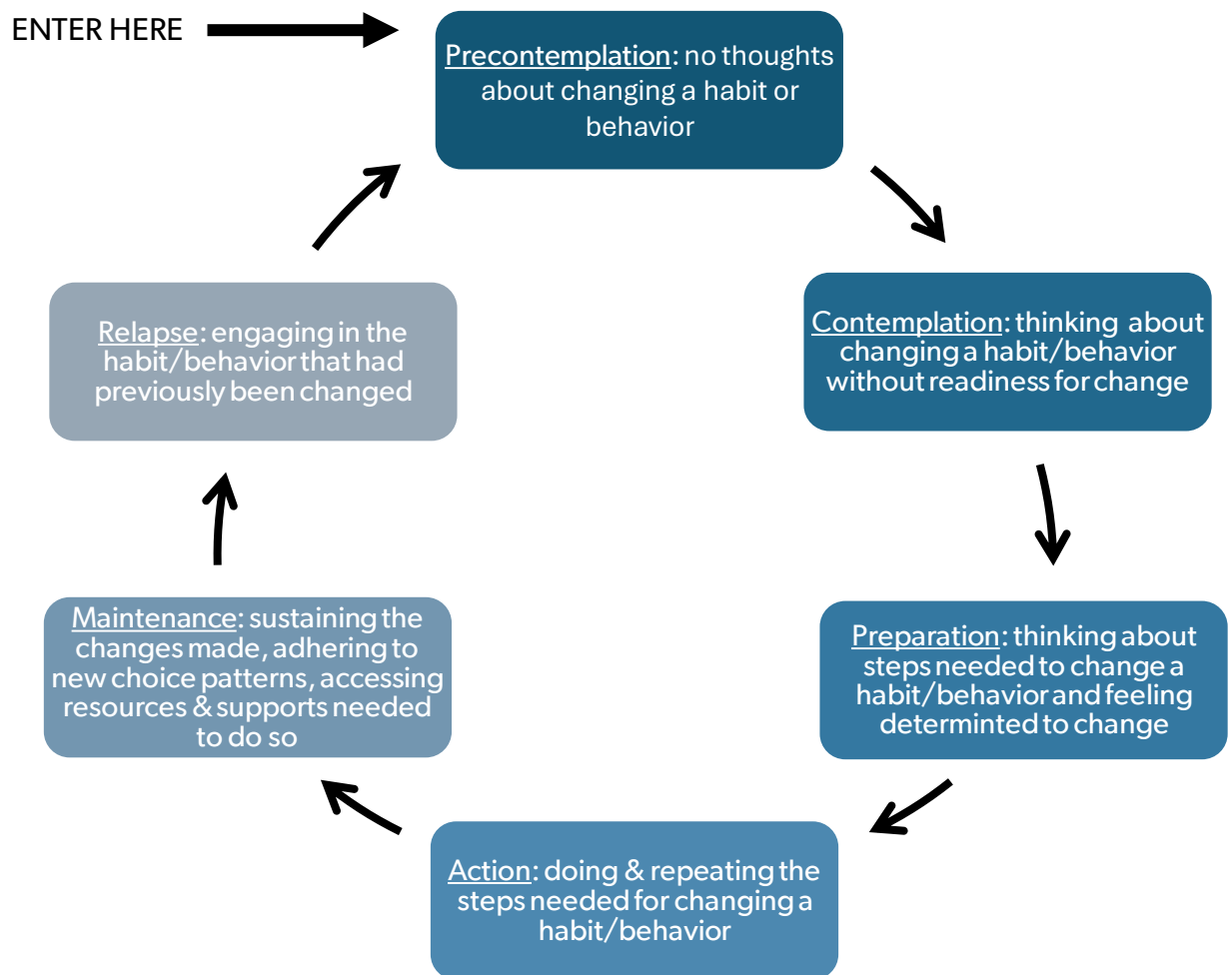
"Mighty is the one who has knowledge." ~Ferdowsi

# Stages of Change

The bariatric surgery process involves changing behaviors and habits. After surgery, interactions with food will be much different from what is typical pre-surgery. Your post-op relationship to food will be different from family members, friends, and others who have not undergone weight loss surgery. It is also important to exercise regularly, stay hydrated, and follow specific rules for eating after surgery. Building new habits of how one eats and lives is the key factor affecting whether patients experience and keep expected results over time.

## STAGES OF CHANGE

The idea of “stages of change” describes how people move through stages of readiness to change behaviors over time.



Exit & Re-Enter at any point in the cycle

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# Stages of Change

## **Stages of Change Reflection Questions:**

- Which habits have you been thinking about changing?
- What has made it difficult to change those habits in the past?
- What made it possible for you to be successful with changing habits in the past?
- What has created more struggle when you've tried changing habits?

## **Supporting change with eating patterns:**

Think about the last time you made an eating choice you were happy with and ask yourself:

- Where was I? What was happening? How was I feeling? What was I telling myself?

Next, think about the last time you made an eating choice you were unhappy with and ask yourself the same questions.

## **Coping with losses:**

There are many kinds of losses in life. Deaths, changes in physical capacities, and relationship endings (or changes) are all common parts of life.

- How have you healed from losses in your life?
- If moving your body has been more difficult over time, you may doubt that movement can help your mental well-being.
  - How ready are you to try movement/physical activity for stress management?
  - What kind of support might you need to stick with it?
- When have you felt satisfied by your choices, because you chose what matters most to you – even if it also felt like a loss in some ways?

## **Coping tools for healing stress and trauma:**

The figure presented on the next page shows a set of coping skills that are part of the Community Resiliency Model of treating trauma and stress.

These skills can help everyone, not just people who have experienced significant traumas.

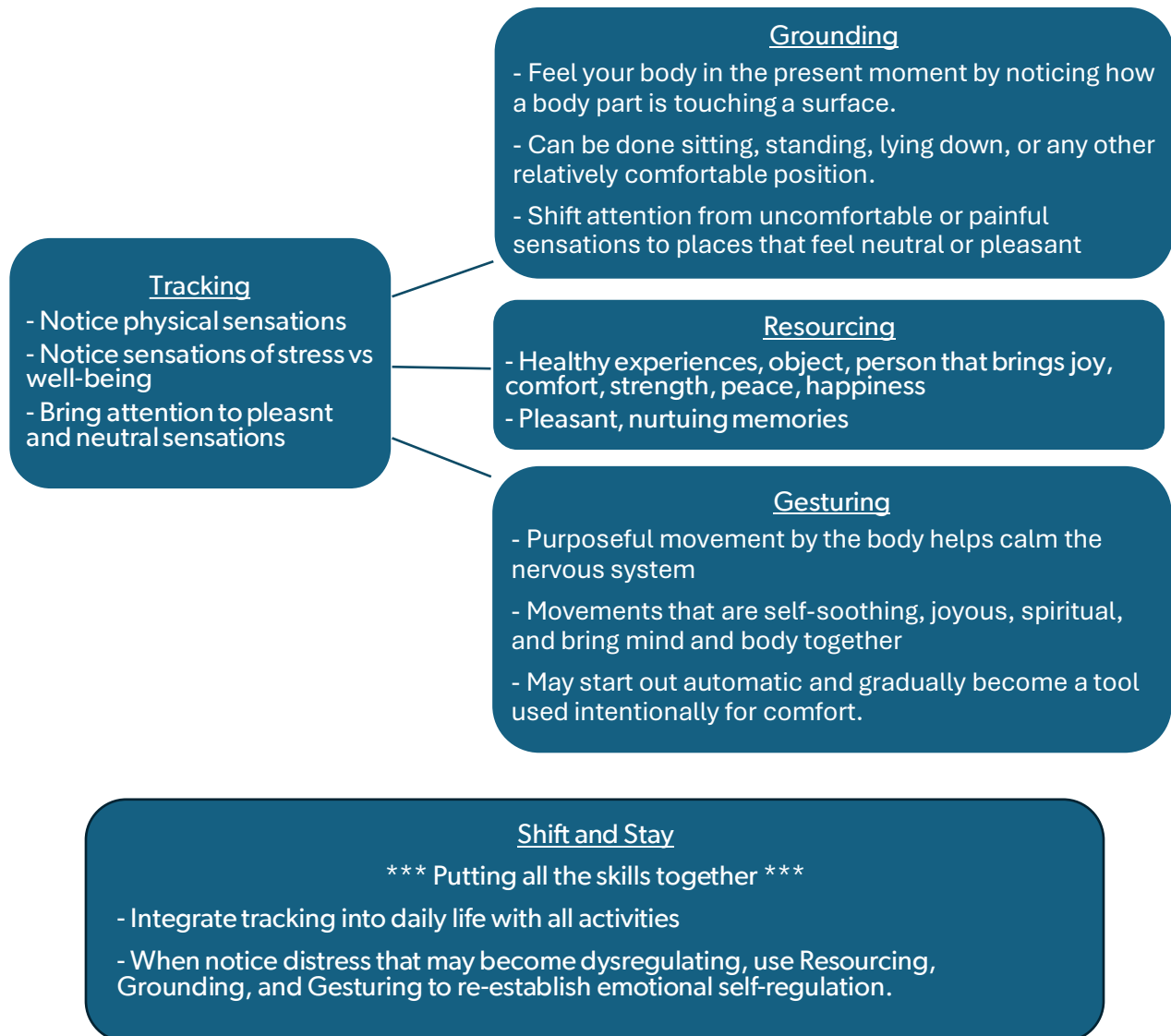
Next time you feel emotionally dysregulated, it may help to try using these skills, starting with Tracking.

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# Coping Skills

Coping skills are the intentional efforts and strategies we make to manage situations that we have determined to be potentially harmful or stressful. Over time we can learn and grow our resilience, which means we have greater capacity to deal with carrying out plans, viewing ourselves positively, communicate well, problem-solve, manage strong emotions and feelings, and build confidence.

## Building Resiliency (From the Trauma Resource Institute)



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# Sleep Matters

Inadequate sleep – in terms of quantity and quality – affects overall health. It can contribute to the development of obesity and mental health conditions. Research studies show the following important findings:

1. The relationship between sleep and other health conditions is complex.
2. Sleep quality prior to dietary weight loss interventions may predict weight loss.
3. Sleep does not typically improve because of dietary weight loss interventions alone.
4. Self-report of excessive daytime sleepiness and sleep quality often improve after bariatric surgery, possibly due to remission of obstructive sleep apnea and/or hormonal changes.
5. To age healthily, individuals should start sleeping before 1AM; this is true even for people whose internally driven sleep-timing preference makes them a “night owl”.
6. Post-op bariatric patients getting less than 7 – 9 hours of sleep were more likely to experience weight recurrence.



*Make sleep a priority*

When patients' sleep duration is less than the recommended 7 – 8 hours, they often say things like, *I've always been fine with less sleep!* However, with a personal history of chronic stress, they may just be in denial about the importance of sleep. It may be the case they have been living in a chronic state of feeling “tired and wired”, thinking there is no problem with their sleep.

Practicing optimal sleep hygiene and getting treatment for sleep disorders, like insomnia, are important parts of the bariatric journey. Surgery is not a cure-all. Inadequate sleep may threaten opportunities for feeling successful on the bariatric journey.

To learn more about and receive guidance for practicing optimal sleep hygiene:

[www.sleepfoundation.org/sleep-hygiene](http://www.sleepfoundation.org/sleep-hygiene)

The evidence-based first line of intervention for insomnia for most people is Cognitive Behavioral Therapy for Insomnia (CBT-I). To learn more:

[www.sleepfoundation.org/insomnia-treatment/cognitive-behavioral-therapy-insomnia](http://www.sleepfoundation.org/insomnia-treatment/cognitive-behavioral-therapy-insomnia)

If you get less than 7 hours of sleep per night and have long-standing difficulty falling or staying asleep, it is important to discuss sleep intervention options with your primary care provider.

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# Exercise

## EXERCISE FOR LIFE

Exercise is an important key to long-term success following bariatric surgery. Studies show that patients who have been most successful after surgery exercise regularly. You will need to commit to moving your body daily. It takes only 30 minutes a day to improve fitness. With exercise, harder is not better, and the idea of “no pain, no gain” is no longer recommended. Instead, exercising at a moderate level of exertion is your best path to injury-free fitness and health.

## REASONS TO EXERCISE

Exercise is not just about managing weight. In fact, the benefits to mental health, chronic disease prevention, and maintaining lifelong mobility are the best reasons for consistent, daily movement.

Regular exercise provides the following benefits:

- Improves mood and self-esteem
- Relieves tension and stress
- Improves sleep
- Lowers blood pressure
- Helps maintain mobility and support healthy aging and independence.
- Increases the rate of healing and recovery after surgery
- Increases energy level
- Improves muscle tone and strength
- Increases joint health flexibility and endurance
- Helps maintain weight loss long-term
- Helps to prevent diseases
- Enhances heart and lung health
- Provides enjoyment and fun

## WHEN TO EXERCISE

It is extremely important for you to adopt a routine of regular exercise. Consider the following tips:

- Budget exercise time into your schedule every day.
- Instead of thinking “should I exercise?” ask yourself “how am I going to move my body today?”
- Take breaks after high-intensity exercise to allow recovery. Yoga, walking, stretching are all good recovery-day activities.
- If you are short on time, walk on your lunch break, do wall push-ups, or micro-squats. There are many short low-intensity videos online.
- Physical therapy can be a great place to start to improve conditioning, mobility, and strength.



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# Exercise

## TYPES OF EXERCISE

Always remember to warm up and cool down. For the first 5 minutes of your workout, start out slowly and easily so your muscles have a chance to warm up. End your exercise session with a 5-minute cool-down. Slow your pace and do some stretching. Here are some good exercises:

- Swimming laps using a kickboard or fins
- Water aerobics or water walking
- Hiking
- Dance classes
- Riding a stationary or recumbent bike
- Upper body exercise bike
- Lifting weights, using resistance bands, engaging in body-weight exercises.
- Walking outdoors or on a treadmill; walking the dog at a quick pace



## BREATHING IS EXERCISE TOO

Activities that incorporate focused breathing and movement, such as Yoga and Tai Chi, and Qigong are excellent for improving balance, coordination, blood flow, mental clarity and reduce stress.

Deep breathing and coughing are very important after surgery to help clear the lungs. While you are in the post-op unit, don't forget to use the incentive spirometer for breathing exercises, 10 times every two hours while you're awake.

## BE ACTIVE, AND BE CAREFUL

- Drink plenty of water during and after exercise to replenish fluids that you lose during activity.
- Wear comfortable, supportive shoes.
- Listen to your body. If you feel chest pain or have difficulty breathing, stop and contact your doctor.
- Don't push yourself too hard too fast. Remember to build up gradually.
- Exercise can always be broken into short bouts (5-10 minutes) and still have benefits.



# Emotional Eating

## Understanding Emotional Eating

If your idea of emotional eating is from the movies you probably imagine someone sitting on a sofa, sobbing while shoveling ice cream in their mouth. That might be what it looks like for some people but is not an accurate understanding of emotional eating. The truth is most people emotionally eat to one degree or another. Emotional eating is defined as a tendency to eat in response to positive and negative emotions. This can look like stress or comfort eating as much as eating when bored or for reward or nostalgia.

Emotional Hunger	Physical Hunger
Emotional hunger comes on suddenly	Physical hunger comes on gradually
Emotional hunger feels like it needs to be satisfied instantly	Physical hunger can wait
Emotional hunger craves specific comfort foods	Physical hunger is open to options – lots of things sound good
Emotional hunger isn't satisfied with a full stomach	Physical hunger stops when you're full
Emotional eating triggers feeling of guilt, powerlessness, and shame	Eating to satisfy physical hunger doesn't make you feel bad about yourself

## How to Reduce Emotional Eating

If emotional eating has been part of your routine for a long time, it won't stop overnight. However, new habits and skills can be built with consistent efforts. Start with the following steps to get going with change.

1. Identify your emotional eating triggers
2. Support yourself with healthy lifestyle habits – exercise, sleep, stress management, etc.
3. Enjoy indulgent foods without overeating by savoring your food
4. Find other ways to feed your feelings by building coping skills
5. Pause when cravings hit and check in with yourself. Are you physically or emotionally hungry?

---

# Emotional Eating

## Coping Skills for Emotional Eating

1. Remember that many people have a habit of using food to cope with stressful situations.
  - There is no moral judgment against using food to self-soothe.
  - The focus can be on which choices are most workable based on personal values & goals.
2. Developing awareness of, noticing, and admitting a pattern of emotional eating are often the hardest but most important first steps towards change.
3. To stay motivated, reminding yourself of the possibilities and goals you are striving toward.
4. Developing acceptance of and curiosity about your uncomfortable emotions (instead of avoiding them, stuffing them, or denying them)
5. Working toward a deeper understanding of what makes the feelings difficult for you. What are these emotions trying to tell me?
6. When reflecting on feelings related to your weight, recognizing your needs (e.g., for pleasure, nostalgia, interest, soothing, etc.) and clarifying for yourself about *other possible ways to meet those needs* will mean you have other options and do not have to depend on only one part of your life (i.e., food) to fulfill your needs.
7. Seeking support from trusted others, especially beloved family and friends.
  - Sharing your goals can help build feelings of accountability for your actions and gives others the chance to support your journey, helping you stay motivated and coping in healthy ways.
8. Seeing and remembering how thoughts affect feelings and overall health.
  - Getting focused on positive, affirming, and assertive thoughts supports progress toward health-related goals.
  - It may be helpful to try visualizing yourself reaching these goals.

## Unmet Emotional Needs

Sometimes emotional needs are unmet; this can lead to feeling deprived and empty.

Events over a person's lifetime end up tying foods to how it feels to meet emotional needs. From these experiences, emotional eating patterns can occur. These patterns are based on a history of learning that your sense of fulfillment and comfort depends upon food consumption.

This is common; to a certain extent, we *all* do this. Part of the bariatric journey is seeing how over-using food for comfort (rather than nourishment) can contribute to health problems.

When there is a lapse or relapse into emotional eating, it is important to do the following:

- a. recognize the actions.
- b. pay attention to life experiences prior to the lapse or relapse.
- c. and focus on the reality that lapses and relapses are part of the change process.

---

# Emotional Eating

To learn from this, you may reflect on the following:

1. Do you have any emotional needs that often are not met? If so, how much effort have you put into figuring out options to manage the difficulties related to those experiences?
2. Do you make choices to eat foods you need to avoid for health reasons, eating them when you are feeling deprived, empty, lonely, or bored? What about when you want to celebrate and share connection with others?
3. How might it look/feel/smell/taste/sound when you make choices to meet unmet emotional needs without using food?



## Mindful Eating Exercise

(From Living with Bariatric Surgery by Ratcliffe)

You will need one of the following for this exercise -- a raisin, a grape, a cherry tomato, a strawberry, etc. You will also need a quiet place with no distractions.

Before starting the exercise, rate your hunger using the scale provided below. Notice where you zoom in to your body to notice hunger.

Imagine you are an alien landed on Earth and that you have never seen this particular food item before -- you have no idea what its texture is, how it may taste and whether you may like it or not.

First, look at the food you have chosen. Look at its color, shape, and surface texture. What do you notice about it?

Now bring the food up to your nose and gently sniff it -- can you detect any smell? Is it sweet or savory? Does it feel hot, cold, or room temperature?

Now gently place the food into your mouth but *do not bite it*. Just allow it to be in your mouth -- roll the food around and explore it with your tongue. What do you notice? How does it feel?

Now take a bite. After biting it, roll it around again in your mouth and explore it with your tongue. What do you notice now that you have taken a bite? How has the texture changed? And the taste?

Now chew the food and notice the changes in texture and taste. What sensations do you notice? You may notice the urge to swallow the food - try to resist this for a while and just notice what it feels like.

When you decide to swallow the food, pay attention and try to track the food as it leaves your mouth and goes down into your stomach.

As you finish this exercise, re-rate your hunger on a scale of 1 - 10 --has it changed?

# Emotional Eating

## Hunger-Satiety Rating Scale

Use this scale to help you learn more about *why* you eat and *why* you stop eating. The goal is to eat when you are hungry and find more productive ways of coping with emotions such as stress, boredom, frustration, or being tired.



Satiety	10	Stuffed to the point of feeling sick
	9	Very uncomfortably full, need to loosen your belt
	8	Uncomfortably full, feel stuffed
	7	Very full, feel as if you have overeaten
	6	Comfortably full, satisfied
Neutral	5	Comfortable, neither hungry nor full
	4	Beginning signals of hunger
	3	Hungry, ready to eat
Hunger	2	Very hungry, unable to concentrate
	1	Starving, dizzy, irritable

Source: Roth G. *Why Weight? A Guide to Ending Compulsive Eating*. New York, NY: Penguin Books, 1989

## Behavioral Health Tools for Success – Conclusion

Establishing a healthy mindset and healthy habits on your bariatric journey will make it easier to feel successful after surgery. Below are helpful resources that have more tips that may work for you – these books cover a lot more information than could be included in this handbook.

- *The Emotional First Aid Kit: A Practical Guide to Life After Bariatric Surgery* by Cynthia L. Alexander, PsyD
- *50 Ways to Soothe Yourself Without Food* by Susan Albers, PsyD
- *Bariatric Mindset Success: Live Your Best Life and Keep the Weight Off After Weight Loss Surgery* by Kristin Lloyd, LPC/LMHC and PhD candidate
- *Living with Bariatric Surgery* by Denise Ratcliffe
- *Bariatric Bombshell: An Honest Approach to Weight Loss Surgery Success* by Stephanie Sehestedt

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# Your Surgery and Hospital Stay

## **WHAT TO TAKE TO THE HOSPITAL**

- Bring this book with you!
- Sleep apnea mask and CPAP machine
- Loose clothes to wear upon discharge
- Lip balm (non-petroleum based)
- Slippers with non-skid soles
- Deodorant, toothbrush, toothpaste
- Brush or comb
- Photo identification card
- Eyeglasses and case (no contact lenses)
- Dentures with case, these will be removed before surgery and returned after.

- Complete medication list
- Prescription inhalers
- Protein shakes (optional, 1 -2)

## **WHAT TO LEAVE AT HOME**

- Contact lenses
- Jewelry including earrings or any other type of body piercing
- Credit cards
- Cash
- All other medications (except inhalers)
- Other kinds of valuables
- Food (except protein shake if desired)

## **WHAT TO WEAR TO THE HOSPITAL**

Please wear loose, comfortable clothing. Do not wear lotions, perfume, makeup, jewelry, or hairpins. It is not necessary to remove fake nails, but it is important to trim your index fingernail to ½ inch. Regular nail polish is okay but do not wear metallic polish. A device called a *pulse oximeter* will be clipped over your finger to measure the oxygen in your blood.

## **THE DAY OF SURGERY**

- Arrive at the hospital at the time given to you by the admitting office, which is 2 – 3 hours prior to your surgery start time.
- Surgery check-in is on the 3<sup>rd</sup> floor of the main hospital. The closest parking garage available for surgery patients and family is Parking Garage S, which is located at the north end of the hospital.
- Before surgery, you will meet your anesthesia provider and receive an IV which provides fluids and antibiotics. At this time, you may also receive sedative and pain medications to reduce postoperative pain. You may receive an injection of Heparin or Lovenox used to prevent blood clots.
- You will be asked to urinate prior to going back to the operating room.

## **WHAT YOUR FAMILY SHOULD DO**

Upon admission, ask your nurse where the best place would be for your family or friends to wait. Volunteers in the waiting area are available to assist your family. They can explain the SmarTrack system, which allows monitoring of your progress throughout surgery.

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# Your Surgery and Hospital Stay

## **THE OPERATING ROOM**

You are taken to the operating room where a nurse greets you, reviews your chart, and asks you questions. The nurse puts compression stockings on you to prevent blood clots. An anesthesia provider administers a general anesthesia and places a breathing tube to control your breathing during surgery. Your surgery will take approximately 1 - 2 hours.

During surgery, your abdomen will be filled with CO<sub>2</sub> gas. This will allow for more room for the surgeon to perform your surgery. This gas can radiate through the diaphragm during surgery to the chest area, shoulder, and/or arm and cause pain. This is normal and will slowly go away over the next 1 – 2 weeks.

## **THE RECOVERY ROOM**

Following your surgery, you are taken to the recovery room, or Post Anesthesia Care Unit (PACU). Here, you begin your recovery from anesthesia which is a gradual process to wakefulness. During this time, you will have equipment attached to you, such as a cuff on your arm or leg that monitors your blood pressure, a sensor on your finger that registers the oxygen in your blood, “boots” on your legs to lower your risk of blood clots, an IV for fluids, and nose prongs or a mask that delivers oxygen as you breathe.

There are many sounds in the recovery room. Don’t be alarmed. The PACU staff are trained to deal with any situation. You will spend about 2 hours in recovery before you are moved to your room.

## **YOUR HOSPITAL ROOM**

When the anesthesiologist and nurses establish that it is safe for you to be released from the recovery room, you are moved to your room on the unit. You will be greeted by a nurse to assess your comfort (pain level) and overall physical status (lung sounds, incision sites, vital signs). The nurse places a blood pressure cuff on your arm and monitors your vital signs regularly. You will continue to be monitored as the anesthesia wears off and your recovery progresses.

The nurse will familiarize you with your room and show you how to use the nurse call system. They will show you where the bathroom is and how to use the television controls. After this, your family is welcome to join you in your room. For your safety, all employees entering your room wear a name badge identifying them by name and role.

You will likely get a visit from an anesthesiologist in the morning following your surgery.

Pain control is very important for your recovery. You will likely receive IV pain medications and will transition to oral pain medications once you begin your diet after surgery. These pain medications are tools for your recovery. Nursing staff will assess your pain and work with you to establish a pain level you are comfortable with. In addition to pain medication, you have other ways to ease pain. The nurses can help you find comfortable positions in bed, show you how to use pillows for support, and suggest relaxation techniques. There is even a therapeutic music channel available through the television.

Nausea is common after surgery, and an anti-nausea patch will be placed during surgery. The nurse will help you manage your nausea after surgery. Sitting upright, walking around, and drinking slowly are important for managing and preventing nausea.

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# Your Surgery and Hospital Stay

## **YOUR ROLE AFTER SURGERY**

You will begin walking within 4 hours after surgery. Walking after surgery is **very** important in preventing blood clots. For your first time out of bed, you need assistance from the staff, so please use your call light located on a paddle or on the bedside rail.

You perform breathing exercises using an incentive spirometer (breathing exercise device) every hour while you are awake. Embracing a pillow during coughing can help relieve some pain.

Starting the day of surgery, you will be given clear liquids (Stage 1 diet) and you will progress to a protein shake (Stage 2 diet) before being discharged home.

## **YOUR DISCHARGE**

You must arrange for a friend or family member to drive you home once you are discharged. It's a good idea to set up your home for recovery prior to surgery. Make sure the items you will need after surgery are available, things like protein shakes, water bottles, and medications that you will take during recovery. Consider that although walking and stairs are ok, heavy lifting is not. Preparing your house and family can make this recovery easier.

At the time of discharge, your surgeon discusses with you when to resume taking your medications. Most of your medications will remain unchanged, except blood thinners and diabetes medications.

Schedule a follow-up appointment with your primary doctor within 1 – 2 weeks of your surgery. If you are on blood thinning medications, diabetes, or blood pressure medications you should have your blood checked within a week.

## **WOUND CARE**

Keep your incisions clean. When you go home, you can shower but avoid submerging yourself in water until it is fully healed which takes about 2 weeks. No baths, pools, or hot tubs. Wash the wounds gently with soap and water, using your hand rather than a washcloth and rinse well. You may experience muscle soreness in the left and right upper stomach areas for a few weeks. The incisions may be sensitive for several months after the operation. Do not expose incisions to sunlight for the first year for minimal scarring.

It is not necessary to cover your small incisions, but you may use a band-aid or dressing if you wish. If you do, change them every day. Drainage from the incision sites, which is sometimes clear yellow, is common. If you have Steri-strips on your incision site, they need to stay on for 2 weeks; after that, they usually fall off on their own.

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# Post-operative Care

## WHEN AND WHO TO CALL

Call your surgeon at **541-222-2700** if:

- You decide to go to the emergency room
- Have persistent vomiting, dry heaving or inability to keep anything down
- Vomit is bloody, black, or like coffee grounds
- Incisions are hot to the touch or have an angry red appearance or drainage that isn't clear
- Fever at or above 101 degrees
- Increasing abdominal pain that is sharp and can't be controlled with pain medication
- Chest pain or shortness of breath, light-headedness or dizziness



Call your primary care provider:

- To schedule an appointment 1 – 2 weeks after surgery
- To reevaluate the dosages (or discontinue) medications you took prior to surgery
- For common ailments such as colds, sinus infections, urinary tract or yeast infections
- For non-surgery related prescription refills

## MANAGING YOUR DIABETES

It is important to regularly check your blood sugars both before and after surgery. Weight loss and healthy dietary changes often reduce the need for oral diabetic medications or insulin.

Happily, many people experience remission of their diabetes after bariatric surgery. If you take oral diabetic medications or insulin injections, stay in close contact with your primary care provider or diabetes care manager (whoever adjusts the medications) throughout the entire surgical process. Oral medications and insulin dosages often need to be decreased or discontinued soon after surgery. Again, we recommend making an appointment with your primary care provider or diabetes care manager within 2 weeks after surgery. If medications are not adjusted, low blood sugar may result.

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# Post-operative Care

## MEDICATION & PAIN MANAGEMENT

Before surgery, you will receive prescriptions for pain medications to be taken as needed during your recovery. Before leaving the hospital, review any regular prescription medications with your surgeon before resuming them at home. You can safely take most medications in pill form after bariatric surgery.

For pain management:

- You should take Tylenol (acetaminophen) around the clock. We recommend 1 Extra Strength Tylenol (500mg) every 6 hours or 2 regular strength Tylenol (325mg tablet) every 8 hours.
- If you have a sleeve gastrectomy you can also take the prescribed NSAID (typically Celebrex). **Do not take ibuprofen while taking Celebrex.**
- Your narcotic prescription is your emergency pain medication. It's there when your other pain medications are not enough. Though a refill is available for this medication, they cannot be provided during nights or weekends.
- If you have been taking narcotic pain medications for a chronic condition, such as arthritis, you are likely going to still require this medication after surgery. Discuss with your surgeon and medication prescriber the best way to manage this.
- Gastric bypass patients should **not** take any products that contain aspirin or nonsteroidal anti-inflammatory medications (NSAID) such as ibuprofen (Advil, Excedrin, Motrin, Nuprin) or naproxen (Aleve, Naprosyn) **for the rest of your life**, because they can cause gastric ulcers.
- Your surgeon will prescribe nausea medication. You will be given a prescription for an acid reducing medication for the first 3 months after surgery.
- Always check with your doctor or pharmacist before crushing tablets or opening capsules because some medications are less effective that way.
- You may go home with a short-term (~30 days) blood-thinning medication, make sure you are taking as prescribed.
- If you take medication for high blood pressure or diabetes, you should be carefully supervised by your doctor as you lose weight because your medication dosages may need to be adjusted.
- See your primary care doctor within 1 -2 weeks of surgery to adjust medication dosages.
- For any medication you take, you should self-monitor or measure that medicine's effect.

## LIFESTYLE

- Use your CPAP as directed.
- Do not smoke or drink alcohol.
- Do not donate blood for the first year.
- Do not go back to work for at least two weeks.
- Do not drive while you are taking pain medications.

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# Healing from Surgery

## **ACTIVITY FOR THE FIRST SEVERAL WEEKS AFTER SURGERY**

You should not attempt any strenuous activity for the first several weeks. You can, however, walk, including up and down stairs. Walking promotes wound healing, circulation, bowel function, weight loss, and the health of your heart and lungs. Exposure to fresh air and sunshine can help relieve depression, anxiety, and food cravings. During your first 6 weeks after surgery, it is extremely important for you to walk as much as you can.

- Start slowly by taking short walks several times a day, preferably outside. Increase the distance and pace of your walks each day but expect to tire easily at first.
- We recommend several walks of 15 – 20 minutes per day.
- No lifting, pushing, or pulling over 10 pounds for 6 weeks.
- Avoid any activities or positions that cause more than mild pain near your incisions.
- Try to avoid bending and twisting at the waist in the first two weeks.
- Abstain from sexual intercourse until incisions are well healed.
- Stairs are okay.
- You should be able to return to work 10-14 days after your surgery if your job is not too physically demanding. Talk with your doctors about when you should return to work.

## **OTHER THINGS TO EXPECT WHEN YOU FIRST COME HOME**

- You may not have a bowel movement for up to 3-4 days after surgery due to anesthesia and pain medications. If needed, you can take MiraLAX which is available over the counter. This can be taken multiple times a day if needed and is safe to take long term. Try Milk of Magnesia if these are ineffective, however this should not be used chronically. Make sure you stay hydrated and walk regularly.
- The first few bowel movements may be very dark due to dried blood from surgery.
- It is very important to stay hydrated after surgery. Make sure you are sipping on water constantly through the day like you did while you were in the hospital.
- Lack of hunger is common. Continue to eat/drink small amounts of Stage 2 foods every 2-3 hours, even if not hungry.
- It is common to feel grief over the loss of comfort foods. Call our office if you are struggling with this. This is also a good time to attend the monthly support group.
- You will probably feel weak and tired immediately after surgery while recovering from the stresses of a major operation. Your energy level will slowly improve. Remember to walk!

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# Healing from Surgery

## STANDARD FOLLOW-UP VISITS

Follow-up visits will be scheduled as follows:

- 1 -2 weeks after surgery with your primary care provider (you will need to call to schedule)
- 1 -2 weeks after surgery with bariatric surgical provider
- 6 weeks after surgery bariatric surgical provider
- 3 months after surgery bariatric surgical provider
- 6 months after surgery with bariatric surgical provider
- Yearly for the rest of your life



At each of these visits you will be weighed, and your provider will check for medical or surgical complications. Your medications may be changed as needed.



Appointments with the dietitian or psychologist are available upon request. Checking in regularly is a good way to monitor changes in body composition, improve food tolerance and prevent nutritional deficiencies. If you are struggling with any dietary or psychological challenges, or just want to check in, please call the clinic at 541-222-2700.

## PREGNANCY AFTER SURGERY

Pregnancy after bariatric surgery should be delayed at least 18 – 24 months, once weight loss stabilizes and it is safest for mom and baby. There is a significant increase in fertility after surgery, so we do recommend women use some form of contraceptive system for the first 2 years after surgery. Unexpected pregnancies have even occurred in women who have been told they are infertile. We have seen many healthy babies born following bariatric surgery. If you do become pregnant after surgery, check with the bariatric dietitian for adjustments to your vitamin and mineral regimen as well as to discuss eating to support a healthy pregnancy and set expectations for weight gain.

## SUPPORT GROUPS

Research shows that people with good social support after surgery achieve greater weight loss and are more likely to keep it off. Our program offers monthly support groups that can be accessed online. These groups are facilitated by a dietitian or psychologist and are peer-led, often including an educational topic that is open and welcoming.

See our website for links: [www.peacehealth.org/bariatrics](http://www.peacehealth.org/bariatrics)

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# Personal Notes

