



# Weight Loss Surgery Guide

For Roux-en-Y Gastric Bypass and Sleeve Gastrectomy Patients



One day for surgery.  
A lifetime of support.



 Southcoast® Health

More than medicine.

## Locations and Contact Numbers

### Wareham Office

100 Rosebrook Way  
Wareham, MA 02571  
508-273-4900

### Fall River Office

300 Hanover Street  
Suite 1 F  
Fall River, MA 02720  
508-273-4900

### Tobey Hospital

43 High Street  
Wareham, MA 02571  
508-295-0880

### Charlton Memorial Hospital

363 Highland Avenue  
Fall River, MA 02720  
508-679-3131

### Hyannis Office

100 Independence Drive  
Suite 6  
Hyannis, MA 02601  
508-273-1940

This booklet is provided as a guide to your weight loss procedure. It is an educational tool for our patients at Southcoast Health.

## Post-operative Questions or Urgent Issues

### Call our office at 508-273-4900.

(Put this number in your cell phone now!)

If you have an urgent question, do not leave a voice message or send an email via mychart. **You must speak with someone.** Wait for the next available attendant or press the Urgent Nurse Line option. There is also a Non-Urgent Nurse Line option for questions.

### Problems in the First Six Weeks After Surgery

Call our office **before** going to the emergency room or your primary care doctor's office. In a severe emergency, call 911 right away. Have a friend or family member call our office to let us know you are having problems. Remember, if you are sent to the Emergency Department, you must go to either Charlton Memorial Hospital or Tobey Hospital for care.

### Preventing Readmissions to the Hospital

#### We need to work together.

- > Follow diet and medication instructions (some nausea, vomiting and pain is not unusual).
- > Have appropriate help at home when discharged.
- > Call early if you are having problems.
- > Same-day and next day appointments are available. Call as early as possible.
- > Outpatient IV and nausea medications will be used if you are having difficulty getting adequate fluids.
- > Have support person available for transporting you to urgent visits.

A bariatric surgeon is always available 24 hours a day, seven days a week. If you call after 5 p.m. or on a weekend, our answering service will contact the surgeon on call. If you do not receive a call back within 15 minutes, call again.

See page 47 for more details.



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# Providers & Staff

## Surgeons



Ray Kruger, MD, FACS  
Medical Director,  
Bariatric & General  
Surgeon



Rachel Cimaomo, MD  
Bariatric & General  
Surgeon



Donald Colacchio, MD  
Bariatric & General  
Surgeon



Patrick Fei, MD  
Bariatric & General  
Surgeon



Jorge Huaco, MD, FACS  
Bariatric & General  
Surgeon



Thomas Streeeter, MD,  
FACS  
Bariatric & General  
Surgeon

## Nurses, Nurse Practitioners and Physician Assistant



Bethany Abde, NP



Victoria Cabral, NP



Suzanne Clancy, RN



Rachel Fortes, NP



Jodie Plouffe, PA



Gracionilde Rego, RN

## Dietitians



Alexandra Carlin, RD



Natia Corsi, RD



Maureen Fletcher, RD



Suzanne Kokkins, RD



Stacy Medeiros, RD



Susan Oliveira, RD

## Dietitians



Jennifer Schlitzer, RD

## Bariatric Behavioral Health Practitioners



Maria Cruz, LICSW



Suzanne Gokavi, LICSW



Raechel McGhee, LICSW

## Other Staff

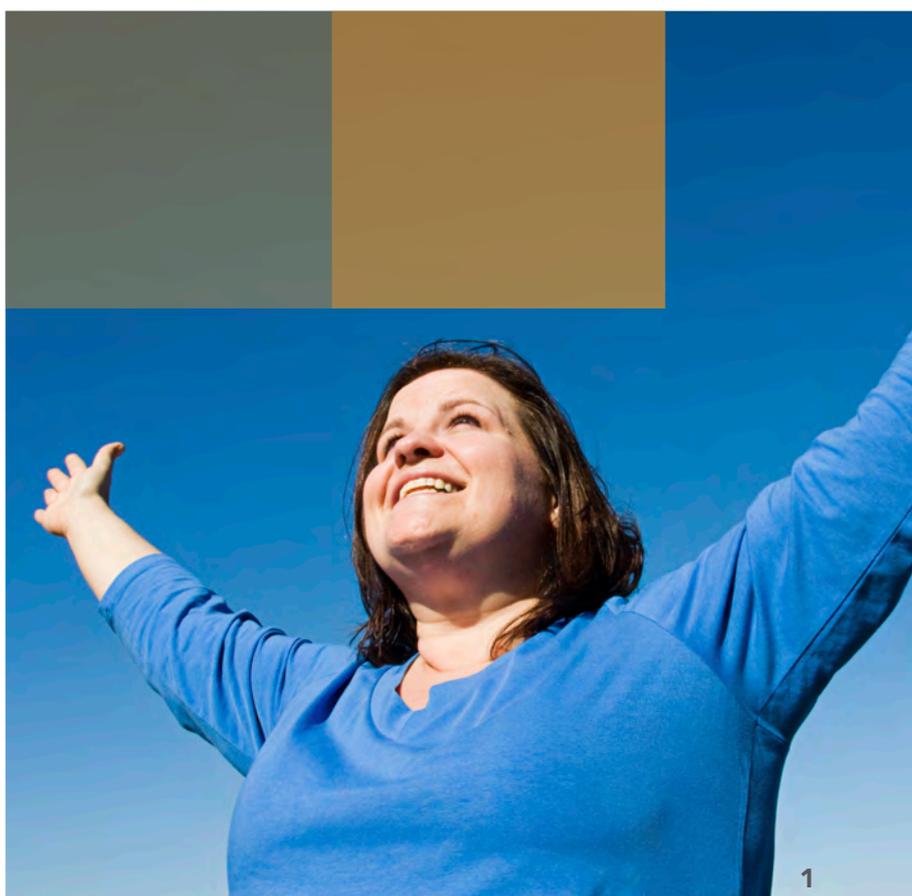
Other members of our team include our office staff, medical assistants and advocates who give patients exceptional care at all three of our locations.

These "behind the scenes" team members play a vital role in keeping our program running smoothly and helping ensure patients have the best possible experience and outcomes.

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## Contract | Roux-en-Y, Sleeve Gastrectomy & Adjustable Gastric Band

### Having elected to undergo Weight Loss Surgery, I agree to the following:

1. I have been informed of my personal medical problems, the dangers of morbid obesity and the operations available to me.
2. The dangers and complications of surgery have been completely explained to my satisfaction, including the possibility of dying.
3. I am voluntarily electing to have this surgery without the coercion or deception on the part of the surgeon or staff.
4. I realize the importance of lifelong, regular, post-operative follow-up.
  - > I agree to maintain follow-up appointments with the program for five years.
  - > I will have blood drawn at three months, six months, 12 months, then yearly and any other time my surgeon may deem necessary.
  - > For Roux-en-Y and Sleeve Gastrectomy patients, the scheduled post-op appointments with the surgeon are as follows: one week, six weeks, three months, six months, nine months, 12 months, 18 months and 24 months. I will be seen yearly thereafter for a total of five years by my healthcare provider at the Center for Weight Loss.
5. If I fail to keep three consecutive appointments and attempts to reach me are unsuccessful, Southcoast has my permission to contact my Primary Care Physician (PCP) at least yearly for information regarding my weight loss and medical condition. I understand that my follow-up care will then be provided by my PCP.
6. Specific vitamins and mineral supplements will be required after surgery. I will purchase and be committed to taking these supplements daily for the rest of my life.
7. I realize the importance of attending monthly support group meetings and understand that they are crucial to my success, especially in the first year.
8. I agree to avoid pregnancy for 18 to 24 months post-operatively.
9. Behavior modification is an important part of weight loss surgery and will enhance the success of weight loss. I understand that it involves exercise, changes in the types of food I eat and liquids I drink, the number of meals I eat each day and how thoroughly I chew my food.
10. I realize my liver may be sensitive after surgery and I will not consume alcohol and drugs that may cause liver damage. I will consume no alcohol for one year and minimal use thereafter.
11. I am committed to contacting the surgeon and staff should I have a surgically related medical complication.
12. I have read and understood the Weight Loss Surgery Guide given to me and I plan to adhere to the guidelines outlined in the guide.
13. I will remain a non-smoker.

I, \_\_\_\_\_ have read the above contract.

I understand and agree to abide by the terms.

Client Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Witness Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## Appointments



### Canceling Appointments

If you cannot make your appointments as scheduled, please be courteous and call the provider's office as soon as possible and reschedule your appointment.

### Rescheduling appointments

- > Nutrition, Psychology, or any healthcare provider visit at the Center for Weight Loss, call:  
Wareham: **508-273-4900**  
Hyannis: **508-273-1940**  
Fall River: **508-273-8610**
- > Pulmonary or cardiac medical clearance schedule change, please call the specific provider you are scheduled to visit. If you are not sure, please call our Center for Weight Loss advocate for assistance.

### Appointment Policy

If you have three consecutive no-call and no-show missed appointments, this may result in a slow down and/or hold status in our program.

### Appointment Checklist

We understand it is not easy keeping track of all your appointments which ready you for your lifestyle changes. We have provided a checklist on page 5.

## Program Outline

This information is a guide to help you navigate through this program's process. It will give you a general idea of what to expect and approximately when to expect it. Attendance is mandatory. Please read carefully.

### Step 1: Attend seminar—Online Video

Please check with your insurance company to make sure you have no exclusions for weight loss surgery and find out what criteria your insurance requires for approval.

For example:

- > Does my insurance plan cover weight loss surgery?
- > What requirements do I need to meet to be covered by my plan?

### Approval for Elective Surgery

- > Insurance approval requests are typically sent when patients are in workshops.
- > Insurance companies have up to 30 days to respond to a request for surgery. We do not schedule surgery until we have an insurance approval.
- > Some insurances require three to six months of monthly, documented, supervised weight loss, diet education and exercise. If you have worked with your physician recently on your weight loss attempts, please bring copies of this documentation to this visit.

### Step 2: First office visit with surgeon

- > Review your medical history, determine if you qualify for surgery.
- > Discuss surgical procedures and answer your questions.
- > Your surgeon may order pre-operative testing and medical clearance at this visit with your primary care physician or a specialist if deemed necessary.

The pre-op tests may include, but are not limited to, the following:

- > Labs
- > EKG
- > Chest x-ray
- > Abdominal ultrasound
- > Stress test if over the age of 50

If you have had any recent (within one year) routine screenings or tests such as a mammogram, pap smear, stress testing or colon cancer screening, please bring a copy of the results to our office.

### Step 3: Nutritional evaluation with dietitian (2 visits required. Insurances may require more.)

- > Written evaluation and recommendation is generated and shared with the weight loss surgery team.

- > Pre-operative weight loss is required.
- > Patient and dietitian will develop goals.
- > A second nutrition appointment will discuss post-op nutrition, post-op supplements and diet progression with patient goals to be reviewed.

### Step 4: Psychological evaluation

- > Two or more one-hour visits are required.
- > Any disqualifications or barriers will be discussed during the evaluation.
- > When behavioral health determines your readiness, you will choose a session for the required Lifestyle Education Workshops (Step 6). These meet for three two-hour sessions each calendar month.

### Step 5: Second office visit with surgeon or nurse practitioner

- > Pre-op testing should be completed before this second office visit.
- > Review progression of goals.
- > Review questions.
- > Medical history review and update.

### Step 6: Life Style Education Workshop

- > Three 2-hour group sessions are required at this step. They begin at the beginning of each calendar month and meet once weekly for 3 consecutive weeks. See page 13.

### Step 7: Office visit with weight loss surgery nurse educator (Group session)

- > Risks and benefits of surgery will be discussed.
- > Hospital stay discussed and questions answered.
- > Patient's support person is strongly encouraged to come to this visit.
- > Medication review. Post-op diet and vitamin supplement review.

### Step 8: Pre-Op surgeon visit Last visit before surgery!

### Step 9: Surgery

## My "To Do" List

Appointment	Date/Time	Purpose	Who	Location	Done
<b>Initial surgeon visit</b>		Meet with surgeon			
<b>Pre-op testing</b> <i>Advocate to schedule and inform you of location and date</i>		EKG, CXR, Abdominal Ultrasound, CBC, CMP, PTH, Folate, Thiamine, B12, Vitamin D, Lipid Panel, iron, TSH, PT, PTT, Thyroid Panel, HGB A1C, U/A, Nicotine and H Pylori. Other testing could be ordered as well.	*Advocate to schedule and notify you of date and time	<input type="checkbox"/> Southcoast <input type="checkbox"/> Cape Cod <input type="checkbox"/> PrimaCare <input type="checkbox"/> Hawthorne <input type="checkbox"/> Other	
<b>Cardiac stress test</b>		If you are over 50 years old, a stress test is required.	Please contact PCP and/or cardiologist to schedule stress test. If unable to schedule, let us know and we can assist you.		
<b>Nutrition appointment #1</b>			Bariatric dietitian		
<b>Psychology appointment #1</b>			Bariatric behavior health practitioner; LICSW		
<b>Nutrition appointment #2</b>			Bariatric dietitian		
<b>Nurse practitioner #1</b>		<b>Review pre-op testing,</b> goals; determine if further testing needed	Bariatric nurse practitioner		
<b>Psychology appointment #2</b>			Bariatric behavior health practitioner; LICSW		
<b>Medical clearance MD appointment</b>		Pulmonologist and/or cardiologist reviews testing and medically clears you for surgery	*Advocate to schedule and notify you of date and time	<input type="checkbox"/> Southcoast <input type="checkbox"/> Cape Cod <input type="checkbox"/> PrimaCare <input type="checkbox"/> Hawthorne <input type="checkbox"/> Other	
<b>Nurse practitioner #2</b> <i>Some patients may only need to see the NP once</i>		Review medical clearance and any additional testing results	Bariatric nurse practitioner		
<b>Workshop</b> <i>Your behavior health practitioner assigns you to the required workshop based on your readiness</i>		Goal setting, learning about you, behaviors for success, coping strategies. Three two-hour classes	Bariatric behavior health practitioner; LICSW		
<b>Pre-op nurse education</b> <i>Bring one adult support person</i>		Two-hour class prepares you for your inpatient hospital stay and recovery at home	Bariatric registered nurse		
<b>Surgeon visit</b>		Last visit with surgeon before surgery!			
<b>Surgery</b>					

\*Your patient advocate will help you with your appointments if needed. Please reach out to your advocate if you need help.

# Introduction



## Understanding Obesity

Obesity is a chronic and progressive disease that can affect multiple organs in the body. People with clinically severe obesity are at medical risk for disability or premature death. At the top of the list for obesity-related co-morbidities are adult onset diabetes and high blood pressure.

Additional conditions that are commonly caused or exacerbated by obesity include, but are not limited to:

- > Obstructive sleep apnea
- > Artherosclerosis
- > Reflux
- > High cholesterol
- > Degenerations of knees and hips
- > Gallbladder disease
- > Menstrual irregularities

Obesity is difficult to treat. Surgery promotes weight loss by restricting food intake and interrupting the digestive process. Surgery is an option for clinically severe obese patients who have been unsuccessful with other weight loss treatments.

For some, no amount of dieting, exercise or lifestyle modification can help significantly impact severe obesity. Surgery is an option. You have chosen weight loss surgery as your option and opportunity for improving your health and wellness. Take control!

## Tips for Success

- > Be accountable. Your success depends on YOU.
- > Your commitment to a new healthier lifestyle is the key.
- > You are not alone. Let us join you on this journey.
- > Make every effort to attend all your scheduled appointments.
- > Attend support groups.
- > Ask questions.

Patients who commit to eating healthy foods, taking their vitamin supplements, having their routine blood work drawn and incorporating exercise into their lifestyle have an increased potential for the best long-term result.

## Roux-en-Y Gastric Bypass Surgery

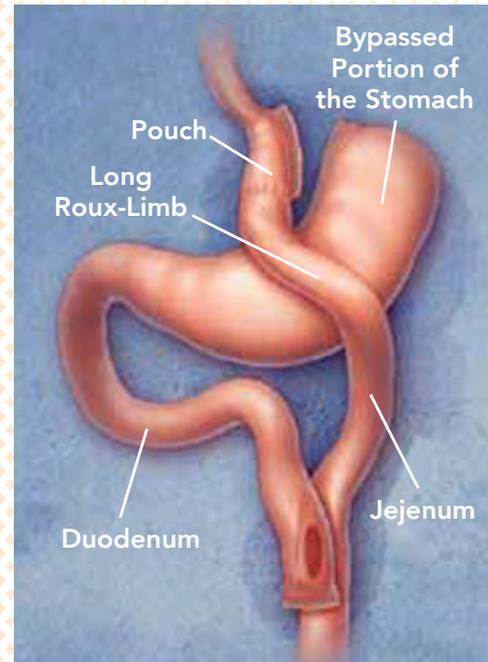
The Roux-en-Y Gastric Bypass is considered by many to be the gold standard procedure for weight loss surgery.



In this procedure, stapling creates a small (.5 to 1 ounce) stomach pouch about the size of an egg.

The remainder of the stomach is not removed, but is completely stapled shut and divided from the lower stomach pouch.

The outlet from this newly formed pouch empties directly into the lower portion of the jejunum, thus bypassing calorie absorption from the duodenum. This is done by dividing the small intestine just beyond the duodenum and constructing a connection with the new smaller stomach pouch.



Pros	Cons
<p>Patients often experience complete resolution or improvement of their co-morbid conditions including diabetes, hyperlipidemia, hypertension and obstructive sleep apnea.</p>	<p>Risks of <b>nutritional deficiencies</b> are higher than restrictive procedures.</p>
<p>The average excess weight loss in the Roux-en-Y procedure is generally higher in a compliant patient than with purely restrictive procedures.</p>	<p><b>Anemia</b> may result from malabsorption of vitamin B12 and iron in menstruating women.</p>
<p>Offers both restrictive and malabsorptive effects.</p>	<p>May cause <b>dumping syndrome</b>, a condition in which contents in the stomach move through the intestine quickly. This can result in nausea, weakness and sweating. Especially after eating sweets.</p>
<p>One year after surgery, weight loss can average up to 75 percent of excess body weight.</p>	<p><b>Potential for gastric leaks</b> due to stapled resection of the stomach.</p> <p>Weight regain.</p>

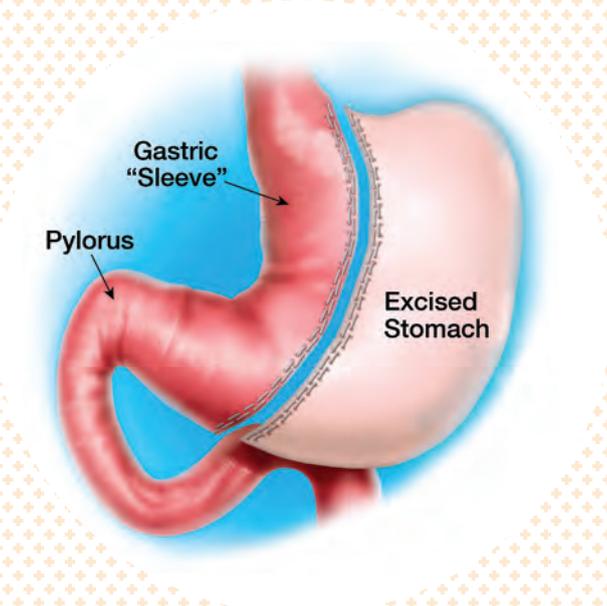
## Sleeve Gastrectomy

A sleeve gastrectomy is a restrictive procedure that limits the amount of food you can eat by reducing the size of stomach by removing two-thirds of your stomach.

During this procedure, a thin vertical sleeve of the stomach is created using a stapling device. This sleeve will typically hold between 3 to 5 ounces and is about the size of a banana.



The valve of the stomach outlet remains (Pylorus). This continues the normal process of stomach-emptying.



Pros	Cons
The procedure reduces the size of the stomach and limits the amount of food you can eat.	<b>Potentially lower weight loss</b> than the Roux-en-Y gastric bypass.
There is less malabsorption and no rerouting of the GI tract.	<b>Potential for gastric leaks</b> due to stapled resection of the stomach.
Shown to help resolve high blood pressure and obstructive sleep apnea. It is also shown to improve type 2 diabetes and hyperlipidemia.	Weight gain.
Excess weight loss at one year averages 59%.	<b>Reflux</b> can be more prevalent in post-operative patients.
Post-operative medication management may be less of an issue when compared to other surgical options.	

## Preparing for Surgery

As a pre-surgery candidate, start making small changes each time you meet with members of the team. Waiting until after surgery would be overwhelming for you.



## Stop Smoking Today

**Patients are required to stop smoking cigarettes and marijuana.**

Smoking:

- > is more dangerous to your long-term health than obesity.
- > hinders lung function and increases the risk of developing pneumonia.
- > increases the possibility of anesthetic complications.
- > increases the risk of developing blood clots of the legs and lung.
- > reduces circulation to the skin and delays healing.
- > stimulates stomach acid production increasing risk of ulcers.

## Lose Weight

**It is important to lose weight before your surgery.**

Your dietitian will guide you in changes needed to lose weight. Start now.

## Caffeine

**Wean off coffee and other caffeinated beverages over the next month.**

## Alcohol

**Stop drinking alcoholic beverages.**

## Exercise

**Begin exercising TODAY.**

## Vitamins

**In preparation for surgery, start taking a complete multivitamin once daily and calcium supplement with vitamin D (500 mg) daily.**

## Smoking Cessation Resources

Your primary care physician may be able to prescribe medication to help.

### QUITWORKS

through the Massachusetts Department of Health  
800-784-8669  
[www.makesmokinghistory.org](http://www.makesmokinghistory.org)

### American Lung Association

[www.lung.org](http://www.lung.org)

### American Heart Association

[www.heart.org](http://www.heart.org)

### Smokefree.gov

[www.smokefree.gov](http://www.smokefree.gov)

### Free phone apps

available through Apple App Store;  
more info on [smokefree.gov](http://smokefree.gov)

QuitSTART

NCI Quit Pal

QuitGuide

## Medications

**To be stopped 30 days prior to surgery:**

- > Hormones, including any birth control pills
- > Discuss alternative birth control methods with GYN prior to surgery.

**To be stopped three weeks prior to surgery:**

- > NSAIDs (see list in appendix)
- > Aspirin
- > Herbal medications (St. John's Wort, Gingko, Garlic, Kava Kava, Valerian, etc.) These have blood-thinning properties or interfere with anesthesia.
- > There may be additional medications that you may be instructed to stop before surgery.

Keep a complete and updated list of your medications with you. We will ask for it frequently.

## Work and Disability

**Expected return-to-work time is about two to three weeks, but this may vary according to your medical situation and recovery.**

Remember that you are not just recovering from surgery but also eating very little and losing weight rapidly.

The first few weeks are a precious time to get to know your new digestive system.

Let your employer know you are having major abdominal surgery if you do not wish to tell them the exact nature of the surgery. Some employers offer disability coverage that requires us to disclose diagnosis and type of procedure for you to receive compensation.

### Consider The Big 7

1. **Eat three meals daily** with plenty of protein/fruit and veggies.
2. **Eat more slowly** (up to 30 minutes).
3. **DO NOT drink with meals and snacks.**
4. **Sip your liquids** when you drink.
5. **Wean off coffee, soda, alcohol, sugars and junk foods.**
6. **Get an exercise plan** started and be consistent.
7. **Buy vitamins** to start up a routine with them.

## Managing Behaviors

### Last Supper Syndrome

It is normal to mourn the anticipated loss of your favorite foods before surgery. Many people make sure they have enjoyed all of them in the few months before surgery. However, this may compromise the need to show some weight loss (important for getting approval for surgery) and probably will not be as important to you after surgery as you think right now. Discuss your emotional ties to food with the behavioral health practitioner during your appointment. By the time you enter workshops, your last suppers are done.

### It's All About You

For many people, their world centers on taking care of others and not focusing on their own needs. For the next year, you will need to create a better balance in your relationships with others. It is essential that you place a priority on your needs for nutrition, menu planning, regular exercise, sleep and meeting your needs in ways other than using food.

### How can your support people help you?

It is important to be surrounded by people who are encouraging and responsive to your requests for help. Some ways that they may contribute to your journey include:

- > Going for a walk with you (or watching the children so you can go by yourself).
- > Getting rid of specific foods that create triggers to make you lose focus.
- > Remaining at the table until you finish your meal (it will be slow for you).
- > Be aware of the critical need to continue vitamins for life after surgery. It is not optional.

## Social Life After Surgery

Many of your social occasions probably revolve around food. There is no need to give that up. Social occasions are about enjoying your friends and family and not really about the food. However, it may require planning on your part to make sure that you have food that you can eat. You may have to bring it with you, especially at first.

## “Head Hunger”

You will learn about the difference between physical hunger and “head hunger.” Have you been meeting your needs with food? Is there a better way to meet your needs?

## Mindful Eating

This is a way of life that you will be encouraged to develop. The goal is to learn the skills to eat less and enjoy it more. It will be important to develop new eating patterns that are more structured; include healthy choices and eliminate dysfunctional eating patterns such as “grazing.”

## Focus

Personality patterns contribute to the loss of focus when trying to follow newly learned skills. Are you a person who lives a very busy lifestyle or someone who spends most of their day taking care of other people’s needs? Such traits can easily lead to a loss of focus on you and your needs.

## Sleep

Getting adequate sleep is vital to better health and for managing your weight. Figure out what you can do to improve your zzzzz’s.

## Stress Management

This is an especially important life skill. How can you manage stress without resorting to comfort eating? Among people who have had weight loss surgery, it is the disruption caused by stressful or emotionally challenging events that triggers the process of weight regain.

## Lifestyle Education Workshops

These three 2-hour sessions include components of a healthy lifestyle, exercise and activity, gifts of weight loss surgery, emotional eating and coping skills, mindful eating, goal setting, food journals, reviewing your old habits and more!

This is a group class, usually with 7-9 patients in each. Different days and times are available.



## Pre-operative Nutrition



## Before Your Surgery

**Lose weight.** This makes the surgery less risky and establishes good eating habits. Try to lose about 10 to 20 pounds. If you are unable to lose weight or you gain weight, you might be put on a liquid diet before surgery.

**Wean off coffee and caffeine.** Regular and decaf coffee can irritate your new stomach pouch or sleeve. Caffeine is a diuretic which could make you dehydrated. We recommend completely avoiding coffee and caffeine for two months after surgery.

**If you smoke cigarettes or marijuana, STOP!**

**Stop drinking alcohol.**

**Eliminate carbonated and sugar-sweetened beverages.**

Carbonation can cause discomfort. Sweetened beverages provide empty calories and may cause dumping.

**Drink at least 64 ounces of fluid daily.** Choose drinks that have no caffeine and less than 10 calories in an 8 ounce serving.

> **Good drink choices:** Water, Decaffeinated tea (hot or iced), Crystal Lite,<sup>®</sup> Mio,<sup>®</sup> Diet cranberry juice, Diet V-8<sup>®</sup> Splash, Fruit<sub>2</sub>O,<sup>®</sup> Powerade<sup>®</sup> Zero, Propel,<sup>®</sup> Vitamin Water<sup>®</sup> Zero, and G2.<sup>®</sup>

**Plan ahead.** Examples: Plan your meals for the week, do some preparations ahead, make lunches ahead of time, have some healthy frozen meals for when you're too busy to cook, keep your refrigerator stocked with good choices, like cut-up carrots, fruit, yogurts, etc.

**Clean out your kitchen of all the foods and drinks that you should be avoiding.** Not having those foods available goes a long way towards making it possible for you to make healthier choices when you eat. If your family complains, point out to them that it's a good idea if you all start to eat a healthier diet.

**Exercise.** Aim to get 30 minutes of exercise daily. Find something you like to do. If you are new to exercise, you may need to start slowly and work your way up to your goal. See "Exercise" section for more tips and suggestions.

## Meal Rules to Practice

**Eat three meals and a planned snack daily.**

- > Never skip meals. You often more than make up for it by snacking or eating larger portions at the next meal.
- > After surgery, you should never skip meals because you won't be able to make up for the nutrients you missed at the skipped meal.

**Include protein at each meal and snack.** Good sources of protein include meat, poultry, fish, eggs, low-fat milk, low-fat cheese, Greek yogurt, cottage cheese, nuts, peanut butter, legumes and soy products. Eating enough protein helps to preserve muscle mass and allows you to lose more fat.

**Eat a fruit or vegetable at each meal.**

**Use a small plate** (8" or less in diameter) or bowl to reduce portion sizes.

**Take dime-sized bites and chew all food to the consistency of applesauce.**

**Eat slowly.** Try to make your meals last 30 minutes. It might help to put your utensils down between bites.

**Stop eating as soon as you start to feel comfortably full.** You don't have to clean your plate!

**Sip your beverages.** No gulping. Practice by drinking a cup of water, one teaspoon at a time. Drinking from a travel coffee mug might help you slow down.

**Don't drink with meals.** Stop drinking 30 minutes before and don't drink until 45 minutes after you eat. Drinking while you're eating solid food can lead to overfilling your pouch, washing the food out of the pouch quickly (which can cause dumping syndrome and/or increased feelings of hunger), or limiting the amount of protein you can eat.

**Start taking the following supplements:**

- > 1 complete multivitamin
- > 1 or 2 calcium with Vitamin D tablets
- > 2000 IU Vitamin D

## Plate & Portion Size

The illustration below shows a smaller plate that you should be using and the type and amount of food that should fill your plate.

### Vegetables/Fruit

These should take up half your plate and include the non-starchy vegetables (*examples: green beans, broccoli, cauliflower, carrots, summer squash, spinach, kale, sliced tomatoes, sliced cucumbers, salad*) and fruit (*fresh, frozen or canned in water*).

Steam, broil or roast vegetables with little added fat.

If you are eating salad, avoid regular salad dressings which are always high in calories or fat. Instead, choose a light or fat-free dressing. Also, avoid high-calorie add-ins like croutons and excessive amounts of cheese.

Starchy vegetables, such as corn, peas, winter squash and potatoes should be limited to ½ cup and take the place of the starch section of your plate.

Avoid vegetables in a buttery, cheesy or creamy sauce.

### Starch/Carbohydrates

This includes ½ cup servings of rice, pasta, white potatoes, sweet potatoes, corn, peas, winter squash or a one slice serving of bread.

Whole grains, such as brown rice, whole wheat pasta or whole wheat bread, are always a better choice.

Choose breads that are lower in calories. Good choices are Arnold's® Sandwich Thins, Pepperidge Farm® Deli Flats, Bagel Thins, Joseph's® wraps, Light Wheat Bread.

### Protein

One quarter of your plate should include 3 to 4 ounces of grilled, baked or broiled meat, poultry or fish, or two eggs or one cup of legumes (beans).

Your protein is best eaten plain. Avoid creamy, cheesy or buttery sauces.

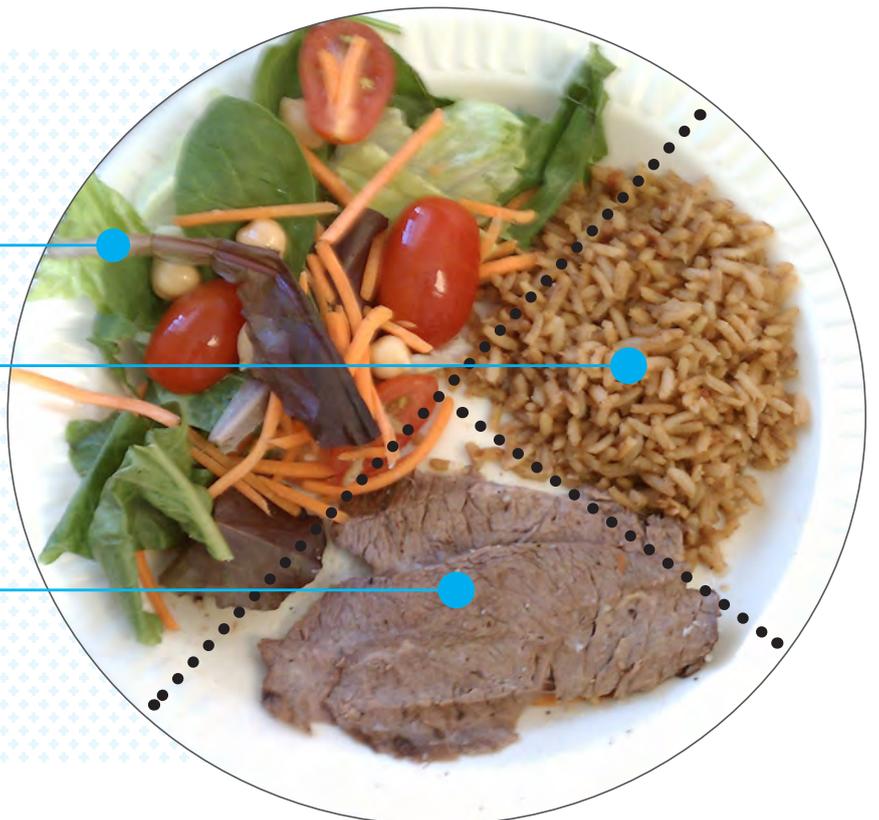
Avoid breaded products, such as fried chicken, chicken nuggets or fish sticks.

Use a plate 8" or smaller in diameter.

Vegetable — half of plate

Starch — ½ cup or one slice of bread

Protein — 3 to 4 ounces



## Understanding Nutrition Facts Labels

### Serving size and number of servings

Check these at the top of the label. The Nutrition Facts information is based on one serving. Some packages may seem like they contain one serving, but there might be two or more.

### Fat and sodium

Keep the levels of fat and sodium low for good health. Read the label to select foods that are lowest in saturated fat, cholesterol and sodium, and are trans fat free. Keep sodium intake to less than 600 mg per meal. Fat should provide no more than 30% of calories (3 grams/100 calories).

### Protein

Aim to get 20 to 30 grams of protein at each meal. Choose meats, poultry, fish, dried beans, milk and milk products that are lean, low-fat or fat-free.

### Vitamins and other nutrients

Look for foods that are high in these nutrients, which promote good health and may protect you from disease. A percentage of daily value (% DV) of 20 or more means the food is a good source of that nutrient.

# Nutrition Facts

8 servings per container  
**Serving size 2/3 cup (55g)**

**Amount per serving**  
**Calories 230**

	<b>% Daily Value*</b>
<b>Total Fat</b> 8g	<b>10%</b>
Saturated Fat 1g	<b>5%</b>
<i>Trans</i> Fat 0g	
<b>Cholesterol</b> 0mg	<b>0%</b>
<b>Sodium</b> 160 mg	<b>7%</b>
<b>Total Carbohydrates</b> 37g	<b>13%</b>
Dietary Fiber 4g	<b>14%</b>
Total Sugars 12g	
Includes 10g Added Sugars	<b>20%</b>
<b>Protein</b> 3g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 8mg	45%
Potassium 235mg	6%

\*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.

**Ingredients:** Cooked pasta (water, wheat flour), water, milk, salt, cream, butter, sugar, salt, egg whites, vegetable color.

### Ingredients

These are listed in order from most to least. Look for breads and grain products that have the "whole" grain high on the list, such as whole wheat or brown rice. Avoid foods that have hydrogenated oils, as these will contain trans fats. Added sugars go by the names sucrose, fructose, glucose, honey, corn syrup and dextrose.

### Calories

Pay attention to the number of calories and remember that this is the number of calories in one serving.

### % Daily Value

This is a general guide to help you link nutrients in a serving of food to their contribution to your total daily intake. The % DV is based on a 2,000 calorie diet. Your diet will probably be lower in calories, but the % DV is still a useful gauge. A low % DV (below 5%) is preferable for saturated fat, cholesterol, sodium and added sugars. Aim for a high % DV (above 20%) for fiber, Vitamin D, Calcium, Iron and Potassium.

### Total Carbohydrates

Total carbohydrates includes starch, fiber and sugar. Aim for 15 to 30 grams per meal, about 1/2 cup or 1/4 of your plate. These don't have to be completely avoided, but make healthful choices, such as fruits, vegetables, beans and whole grains.

### Sugar

To prevent dumping syndrome, total sugar should be less than 15 grams per serving. "Added sugars" are the sugars added during processing and should be kept to a minimum. Foods that are high in added sugars are usually low in beneficial nutrients.

## Protein

**Include protein at every meal and snack. It helps preserve your lean muscle as you lose weight.**

**Each of these foods in the specified serving size provides about seven grams of protein:**

- > Low-fat or fat-free milk products: 3 oz. of Greek yogurt, 6 oz. of regular yogurt, 8 oz. milk, ¼ cup cottage cheese, 1 oz. cheese, ⅓ cup dry milk powder, 4 oz. Fairlife® milk
- > 1 oz. lean meat, fish or poultry, ¼ cup tuna or chicken salad
- > 1 egg or ¼ cup egg substitute, or ¼ cup egg salad
- > ¼ cup nuts, 2 Tbsp. peanut butter, 3 Tbsp. PB2®
- > ½ cup cooked legumes (kidney, black, pinto, garbanzo beans)
- > ½ cup tofu
- > ½ cup cooked quinoa

Note that fruit contains no protein, and grains and vegetables have very little.

Your protein goal (before and after surgery) is to have 60 to 80 grams daily. This can be easily achieved by having eight to 10 servings of the above foods each day (two to three servings per meal). If you don't consume enough protein, you lose lean muscle, which slows down your metabolism and makes weight loss more difficult.

Adding unflavored protein powder or dry milk powder to foods will boost their protein content.

**Try this exercise to calculate the amount of protein in a meal plan:**

**Breakfast:** 1 scrambled egg with 1 oz. of melted cheese \_\_\_\_\_ grams

**Lunch:** ½ cup chicken salad with four saltines \_\_\_\_\_ grams

**Snack:** 6 oz. Greek yogurt \_\_\_\_\_ grams

**Dinner:** 3 oz. baked fish with ¼ cup green beans \_\_\_\_\_ grams

**Total grams of protein:** \_\_\_\_\_

### Portions that provide 20-30 grams of protein

- 3 oz. lean meat, fish or poultry
- 3 oz. deli meat and cheese combination
- 11 oz. Greek yogurt (2 containers)
- ¾ cup cottage cheese
- 2 eggs with 1 oz cheese
- 3 oz. cheese or 3 cheese sticks
- ¾ cup tuna, egg or chicken salad
- 3 cups skim or 1% milk
- 1½ cups Fairlife® milk
- Carnation® Breakfast Essentials Light Start made with 10 oz. Fairlife® milk
- 1 oz. (2 Tbsp.) most protein powders, mixed with water or milk, or added to pudding, oatmeal or applesauce

### Protein shakes

It may be helpful to drink protein shakes to help you meet your protein goals, especially after surgery. They are sold as powders or ready-to-drink shakes.

- > Choose a powder or shake that contains whey protein or soy protein.
- > Aim to get 20-30 grams of protein in your shake.
- > Protein powders and ready-to-drink shakes come in many flavors. Try several flavors and brands until you find one or more that you like. Avoid buying large quantities of protein products before surgery, in case your taste for them changes after surgery.
- > Check that whatever protein supplement you choose has less than 15 grams of sugar.
- > You can mix your protein powders with milk or water.
- > Change the flavor of your protein shakes by adding PB2<sup>®</sup> (powdered, fat-free peanut butter), sugar-free instant pudding mix, sugar-free jello mix, sugar-free syrups (DaVinci<sup>®</sup> syrup), Stage 1 baby fruit, Crystal Lite<sup>®</sup> or other similar sugar-free drink powder, cinnamon or nutmeg.
- > If you are blending fruit into your shake, limit the amount to ½ cup or less of fruit with no added sugar or ½ banana.
- > Drink your protein shake within two hours or keep it refrigerated to prevent spoilage or food poisoning.

### Protein bars

If you eat protein bars, choose ones that are under 200 calories and provide 15 or more grams of protein.

## Examples of Protein Supplements

### Powders

#### Syntrax<sup>®</sup> Nectar

Available in single serving packets.

#### Body Fortress<sup>®</sup>

#### No Sugar Added Carnation<sup>®</sup> Breakfast Essentials Light Start

(formerly Carnation<sup>®</sup> Instant Breakfast) *When mixed with Fairlife milk, provides 18 grams of protein, contains lactose.*

Unjury<sup>®</sup> *Only sold online.*

#### Muscle Milk<sup>®</sup>

#### EAS<sup>®</sup> AdvantEDGE

Any Whey<sup>®</sup> unflavored powder

#### Isopure<sup>®</sup>

#### Shakeology<sup>®</sup>

#### Slimfast<sup>®</sup> Advanced Nutrition Smoothie

#### Ensure<sup>®</sup> Active High Protein Powder

Quest<sup>®</sup> Available in single serving packets.

### Ready-to-Drink

#### EAS<sup>®</sup> AdvantEDGE

#### Ensure<sup>®</sup> Active High Protein

*Avoid other Ensure<sup>®</sup> products as they are high in sugar.*

#### SlimFast<sup>®</sup> Advanced Nutrition High-Protein Shakes

*(not the regular SlimFast<sup>®</sup> shakes)*

#### Isopure<sup>®</sup>

#### GNC<sup>®</sup> Lean Shake 25

#### Muscle Milk<sup>®</sup>

#### Premier Protein<sup>®</sup>

#### Optifast<sup>®</sup> 800 shake

#### Premier Protein<sup>®</sup> Clear

#### Core Power<sup>®</sup> Light

**Bars** *May be used before surgery, but not again until you start Stage 5 (two months after surgery).*

#### EAS<sup>®</sup> Nutrition Bar

#### Quest<sup>®</sup> Bar

#### Proti-Thin<sup>®</sup> Bars

#### Pure Protein<sup>®</sup> High Protein Bar

#### Atkins<sup>®</sup> Bar

#### OhYeah!<sup>®</sup> Good Grab Protein Bar

#### Zone<sup>®</sup> Bar

#### Premier Protein<sup>®</sup> Fiber Bars

## Estimating Portion Sizes

The most accurate way to measure your portions is to use a food scale or measuring cups, but there are other tools you can use to estimate how much you are eating.

One cup is about the size of a baseball or a medium-sized fist.



A ½ cup of starch is about the size of two golf balls or a tennis ball.



Three ounces of meat, poultry or fish is about the size of a deck of cards.



Three ounces of deli meat is about the size of two to three stacked DVDs.



One ounce is about the size of a thumb or three dice.



Two Tbsp. of salad dressing is about the size of a ping pong ball.



One tsp. is about the size of a fingertip or a postage stamp.



## Goals

These are your goals to work on before your next nutrition appointment:

- Thoroughly read the post-op nutrition section of your book and answer the quiz questions.
- If you smoke cigarettes or marijuana, STOP!
- If you drink alcohol, STOP!
- Begin to lose weight.
- Eat three protein-rich meals a day.
- Eat a fruit or a vegetable at each meal.
- Increase exercise to 30 minutes daily, or as much as you can tolerate.
- Wean off coffee, soda, caffeinated beverages and sugar-sweetened beverages.
- Drink 64 ounces of fluid a day.
- Eat slowly and chew food to the consistency of applesauce.
- Use a small plate.
- Start taking one multivitamin, 1,000 mg of calcium supplements and 2,000 units of Vitamin D daily.
- Stock up on items that will be useful before and after surgery, such as measuring cups, a food scale, a blender, a shaker bottle, and smaller plates.
- Start looking around for protein supplements, chewable multivitamins with iron, calcium with Vitamin D and sublingual Vitamin B12 supplements (Refer to the Vitamin and Mineral Supplements section on page 23 for more details).
- Other \_\_\_\_\_

# Vitamin and Mineral Supplements

Begin taking your supplements one week after surgery.

No multivitamins or calcium in gummy form.



## Schedule for taking supplements:

Supplement	Time
Multivitamin (Two daily)	_____
Calcium with Vitamin D (Three 500 mg doses or two 600-650 mg doses)	_____
Sublingual Vitamin B12 (500 mcg)	_____

## Post-op Vitamin and Mineral Supplements

After surgery, you will be eating less and possibly absorbing less of the nutrients you need. We recommend that you take the following supplements for the **rest of your life** to avoid deficiencies and protect yourself from long term effects of poor nutrition, such as osteoporosis, hair loss, nerve damage, anemia, dementia, depression and fatigue.

**Please note:** If you are taking thyroid hormones for hypothyroidism, you should wait two hours after you take your medication to start taking the multivitamin, calcium and iron supplements.

### Vitamin and Mineral Requirements

Chewable Complete Multivitamin (No Gummies)	Chewable Calcium Citrate or Calcium Carbonate with Vitamin D	Sublingual Vitamin B12																														
<p>&gt; Take two a day at separate times.</p> <p><b>Check the supplement facts to make sure each tablet contains:</b></p> <ul style="list-style-type: none"> <li>&gt; 400 IU Vitamin D</li> <li>&gt; 1.5 mg thiamin</li> <li>&gt; 400 mcg folic acid</li> <li>&gt; 18 mg iron</li> <li>&gt; 12 mg zinc</li> </ul> <p><b>Suggested brands</b></p> <ul style="list-style-type: none"> <li>&gt; Flintstones® Complete</li> <li>&gt; Centrum® Kids Complete</li> <li>&gt; Celebrate® Multi Complete</li> <li>&gt; CVS® Children’s Chewable Complete</li> <li>&gt; Equate® Children’s Complete Chewable Multivitamin</li> <li>&gt; Up and Up (Target®) Kids Multivitamin Complete</li> <li>&gt; RiteAid® Children’s Complete Chewable Vitamins</li> </ul> <p><b>Do not take at same time as calcium supplement. Separate by at least two hours.</b></p>	<p>&gt; Supplement with 1200-1500 mg daily in 2-3 doses.</p> <p><b>Check the supplement facts:</b></p> <ul style="list-style-type: none"> <li>&gt; If each dose supplies 500 mg of calcium, take 3 times daily</li> <li>&gt; If each dose supplies 600-650 mg, take 2 times daily.</li> </ul> <p><b>Suggested brands and daily dose:</b></p> <table border="1" data-bbox="638 1166 1270 1871"> <thead> <tr> <th>Brand</th> <th>Amount/Dose</th> <th># Times/Day</th> </tr> </thead> <tbody> <tr> <td>Viactiv® (carbonate)</td> <td>650 mg/tablet</td> <td>2</td> </tr> <tr> <td>Caltrate® Chews and Soft Chews (carbonate)</td> <td>600 mg/tablet</td> <td>2</td> </tr> <tr> <td>Citracal® Calcium Pearls (carbonate)</td> <td>600 mg/3 pearls</td> <td>2</td> </tr> <tr> <td>UpCal D® powder (citrate)</td> <td>500 mg/packet</td> <td>3</td> </tr> <tr> <td>Twin Labs® (citrate)</td> <td>500 mg/2 wafers</td> <td>3</td> </tr> <tr> <td>Bariatric Advantage® Chewable or Chewy Bites (citrate)</td> <td>500 mg/tablet</td> <td>3</td> </tr> <tr> <td>Celebrate® Chewable or Soft Chews (citrate)</td> <td>500 mg/tablet</td> <td>3</td> </tr> <tr> <td>Calcet® Creamy Bites (citrate)</td> <td>500 mg/tablet</td> <td>3</td> </tr> <tr> <td>Wellesse® Calcium Liquid (citrate)</td> <td>500 mg/1 Tbsp. &amp; 1 tsp.</td> <td>3</td> </tr> </tbody> </table> <p><b>Calcium carbonate should be taken with meals. If you have a history of kidney stones, calcium citrate is a better choice.</b></p> <p><b>Not recommended: antacid supplements (Tums®) and gummy calcium supplements (Vitafusion®, Citracal® Gummies)</b></p> <p><b>Separate doses of calcium and multivitamin by at least 2 hours.</b></p>	Brand	Amount/Dose	# Times/Day	Viactiv® (carbonate)	650 mg/tablet	2	Caltrate® Chews and Soft Chews (carbonate)	600 mg/tablet	2	Citracal® Calcium Pearls (carbonate)	600 mg/3 pearls	2	UpCal D® powder (citrate)	500 mg/packet	3	Twin Labs® (citrate)	500 mg/2 wafers	3	Bariatric Advantage® Chewable or Chewy Bites (citrate)	500 mg/tablet	3	Celebrate® Chewable or Soft Chews (citrate)	500 mg/tablet	3	Calcet® Creamy Bites (citrate)	500 mg/tablet	3	Wellesse® Calcium Liquid (citrate)	500 mg/1 Tbsp. & 1 tsp.	3	<p>&gt; 500 mcg per day</p> <p>Place under the tongue and let it dissolve.</p> <p>Can be taken at any time with any of the other supplements.</p> <p>Also available as a monthly injection from your primary care provider or as a weekly prescription nasal spray.</p>
Brand	Amount/Dose	# Times/Day																														
Viactiv® (carbonate)	650 mg/tablet	2																														
Caltrate® Chews and Soft Chews (carbonate)	600 mg/tablet	2																														
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Wellesse® Calcium Liquid (citrate)	500 mg/1 Tbsp. & 1 tsp.	3																														
		<p><b>Other Supplements</b></p> <p>If your iron or Vitamin D levels are low, you will need to take additional supplements.</p> <p><b>Suggested brands</b></p> <ul style="list-style-type: none"> <li>&gt; NatureMade® VitaMelts Vitamin D3</li> <li>&gt; NatureMade® Adult Chewable D3</li> <li>&gt; Celebrate® Iron Plus Soft Chews</li> <li>&gt; Bariatric Advantage® Chewable Iron</li> </ul>																														

## Post-operative Nutrition



After surgery, you will need to make changes in your diet. Your diet will progress from a liquid diet to a soft, moist diet and then to a regular texture diet. This progression is designed to allow your body to heal while minimizing unnecessary complications. You will find that your stomach capacity is limited and you will fill up quickly.

Over time, your capacity will increase, but it will always be less than it was before surgery.

## Post-op Diet Stages

Most patients stay in the hospital for two full days after surgery. On the day of surgery, you will have nothing to eat or drink afterwards. The diet stages begin the day after surgery.

### Stage 1:

#### **Sips of water the morning after surgery.**

Try to sip one ounce every 15 minutes for two hours, then gradually increase the amount. By the end of the day, you should have sipped 32 ounces of fluid.

### Stage 2:

#### **Sugar-free, clear (see-through) liquids.**

#### **Starts at lunch the day after surgery.**

*Examples:* broth, decaf tea, Crystal Light,<sup>®</sup> diet gelatin, artificially sweetened fruit drinks.

**You should always drink 64 ounces or more of fluid every day.** We recommend that you do not drink through a straw, as it may make you feel more full or nauseous. Eventually, if you can tolerate it, you can use a straw.

### Stage 3:

#### **Protein drinks and smooth liquids, low in sugar and fat. Starts at dinner the day after surgery and continues for two weeks.**

See the Stage 3 shopping list on page 28 for the specifically recommended foods. This stage starts at dinner the day after surgery and continues for two weeks after discharge.

Be aware that there is not a lot of variety at this stage of the diet. Despite that, be sure that you stay on this stage for the full two weeks. Adding solid foods too early can result in pain or readmission to the hospital.

All foods at this stage must be liquid and smooth. Avoid chunks or pieces of food to allow your new stomach to heal.

#### **Fluid**

It is very important to meet your fluid goal of 64 ounces a day. Besides water, fluid is provided by protein shakes, milk, sugar-free Jello,<sup>®</sup> sugar-free popsicles and other beverages.

#### **Protein**

Try to meet your protein goal of 60 to 80 grams a day, but don't worry if you fall short. When you get to Stage 4, you will have many more protein sources to choose from. Refer to the Protein section on page 18.

**It is absolutely vital that you follow the diet stages and food lists exactly and for the recommended amount of time. Failure to do so can result in abdominal pain, a leak and hospitalization.**

### Shopping List for Protein Drinks and Smooth Liquids

First and second weeks after surgery.

#### Good sources of protein

- Plain or low-sugar smooth Greek yogurt.  
*Examples: Dannon® Light & Fit Greek toasted coconut and vanilla, raspberry chocolate, banana cream or strawberry cheesecake flavors; Yoplait® 100 calorie Greek vanilla or lime flavor; Chobani® vanilla; Yoplait® Greek whips, Oikos® Triple Zero.*
- Plain or low-sugar smooth regular yogurt  
*Examples: Dannon® Light & Fit Lemon flavor*
- Non-fat or 1% milk
- Fairlife® milk (fat free or 2%)
- Plain soy or low-fat Lactaid® milk
- Light Start Carnation® Breakfast Essentials made with Fairlife® milk
- High-protein, low-carbohydrate supplements such as Ensure® High Protein, Glucerna®, Isopure®, Muscle Milk® Light, Premier Protein®, Core Power® Light
- Protein shake made with whey or soy protein powder
- Unsweetened applesauce, stage 1 baby food or sugar-free pudding with added protein powder or non-fat dried milk powder

#### Good sources of fluid

- Water
- Flavored waters: Fruit2O®, Vitamin Water® Zero, Propel®, Powerade® Zero, G2®
- Crystal Light®, Mio® drops, sugar-free Kool-Aid®, Lipton® diet decaf iced tea or any sugar-free, caffeine-free drink mix
- Sugar-free popsicles
- Sugar-free Jello®
- Low-sodium smooth soups (strain if necessary)  
*Examples: tomato, creamy pea soup, butternut squash soup*
- Low-sodium broth, bouillon or consommé
- Diet cranberry juice
- Diet V-8® Splash
- V-8® Vegetable juice
- Unsweetened, pulp-free juice (no more than 4 ounces per day)
- Herbal or decaffeinated hot or iced tea
- Sugar substitute (Stevia®, Equal®, Splenda®, Sweet-n-Low®)

**Fluid Goal: 64 ounces every day**

**Protein Goal: 60 to 80 grams**

### Sample Meal Plans

First and second weeks after surgery.

#### Sample 1

(63 grams protein, 64 oz. fluid)

8 a.m. Breakfast	½ cup smooth Greek yogurt (10 grams protein)
9:30 to 11:30 a.m.	16 oz. water, Crystal Light® or other sugar-free beverage
12 p.m. Lunch	4 to 6 oz. of strained low-fat cream of chicken soup with non-fat dried milk for added protein (1/3 cup = 8 grams protein) (10 grams protein)
1:30 p.m.	8 oz. Fairlife® milk mixed with Light Start Carnation® Breakfast Essentials (20 grams protein)
2:30 p.m.	½ cup unsweetened applesauce
3:30 to 5:30 p.m.	16 oz. water, Crystal Light® or other sugar-free beverage
6 p.m. Dinner	4 oz. Stage 1 baby food with at least 20 grams protein powder added (20 grams protein)
8 p.m.	4 oz. sugar-free Jello®
9 p.m. until Bedtime	12 oz. water, Crystal Light® or other sugar-free beverage

#### Sample 2

(80 grams protein, 64 oz. fluid)

8 a.m. Breakfast	Protein shake with 20 to 30 grams protein (~25 grams protein)
9 to 11 a.m.	16 oz. decaf or herbal tea
12 p.m. Lunch	4 to 6 oz. strained pea soup
1 p.m.	8 oz. water, Crystal Light® or other sugar-free beverage
2 to 3 p.m.	Protein drink that provides 20-30 grams of protein
4 p.m.	4 oz. smooth Greek yogurt (10 grams protein)
5 p.m. Dinner	4 to 6 oz. strained minestrone soup
6:30 p.m.	4 oz. sugar-free pudding with at least 20 grams protein powder (22 grams protein)
8 p.m. until Bedtime	16 oz. water, Crystal Light® or other sugar-free beverage

### Stage 4:

**Soft solids** – soft, moist, blended and ground foods, low in sugar and fat – that are **soft enough to easily mash with a fork**. Starts two weeks after surgery and continues for six weeks.

When you start this stage, you will be only able to eat very small portions (maybe not even a whole egg). You may need to eat several small meals daily. When your stomach is full, you may feel a sensation of cramping, pressure, hiccuping or burping, which is your signal to stop eating. If you continue to eat, it is likely that you will experience vomiting. As your stomach empties, these signs of fullness will resolve. As you progress through this stage, your portions will become larger and you can eat less often. By the time you advance to Stage 5, you should be eating three meals daily, each with 2 to 3 ounces of protein.

**Remember not to eat solids and drink fluids at the same time.** Fruits and vegetables must be very soft. No raw vegetables, like salad, at this stage. Try one or two new foods a day to make sure you tolerate them.

Moist cooking methods, such as poaching, steaming, boiling and slow cooking are recommended.

### TRY THIS RECIPE FOR RICOTTA BAKE

Mix together 8 oz. part skim ricotta cheese, ½ cup grated parmesan cheese and 1 large egg. Top with ½ cup smooth marinara sauce and ½ cup shredded mozzarella cheese. Bake at 350° for 20-25 minutes or microwave until bubbling. Makes 4 ½ cup servings.

**Fluid Goal: 64 ounces every day**

**Protein Goal: 60 to 80 grams**

### Examples of Soft Solids Meals

¼ cup cottage cheese and  
½ canned peach.

1 oz. steamed salmon and  
¼ cup cooked green beans.



## Shopping List for Soft Solids

Starts two weeks after surgery and continues for six weeks.

### Start with these proteins for week 3 and continue to drink protein shakes.

- Eggs or Egg Beaters® (scrambled) / Egg salad
- Low-fat cottage cheese or ricotta cheese
- Plain or low-sugar yogurt with soft fruit (preferably Greek yogurt)
- Low-fat mozzarella sticks (string cheese) or thinly-sliced low-fat cheese
- Canned tuna or canned salmon, mashed and moistened with low-fat mayo

### Then start to add these proteins from weeks 4-8

- Chicken salad made only with finely-chopped or canned chicken moistened with low-fat mayo, no celery, etc.
- Ground beef, ground chicken or ground turkey, cooked and crumbled in sauce, gravy, or broth
- Meatloaf, moistened with gravy or sauce
- Poached or steamed white fish, salmon, small shrimp and small scallops
- Smooth peanut butter
- Shaved lean deli meats
- Mild chili
- Canned black, pinto, white or fat-free refried beans
- Tofu or cooked soy crumbles or TVP

### Use in moderation to moisten or flavor foods

- Low fat salad dressing, low-fat mayonnaise, mustard, ketchup, tomato sauce, low-fat gravy, broth, smooth hummus, smooth guacamole

### Fruits and vegetables

- Soft Fruits: ripe banana or melon, watermelon (avoid the seeds), drained canned fruits (packed in fruit juice or water)
- Canned or Cooked Vegetables: carrots, green beans, asparagus tips, cauliflower, chopped spinach, summer squash; limit potatoes, sweet potatoes, winter squash due to high starch content

### Other foods

- Plain low-fat crackers (Saltines®)  
Only eat with protein, such as peanut butter, chicken salad, tuna salad or egg salad, in place of bread. Don't eat them alone.
- Soupy Cream of Wheat®, Cream of Rice®, or low-sugar oatmeal (cooked in low-fat milk for more protein)

**No bread, pasta, rice, broccoli, raw vegetables or salad.**

### Beware of Slider Foods!

Starchy foods, like crackers, pretzels and chips, provide little nutritional value and no restriction when eaten alone. They easily pass through your pouch or new stomach without producing a feeling of fullness. This will jeopardize your weight loss and may cause weight regain.

Eat crackers in limited amounts, and only with a protein, such as peanut butter or cheese.

## Stage 4 | Starts two weeks after surgery and continues for six weeks

### Sample Meal Plans

Starts two weeks after surgery and continues for six weeks.

**Sample 1** When you start Stage 4, expect to only be able to eat very small portions and frequently (61 grams protein)

8 a.m. Breakfast	1 egg with 1 slice of melted cheese (14 grams protein)
9 a.m.	8 oz. of water or sugar-free beverage
10 a.m.	¼ cup cottage cheese (8 grams protein)
11 a.m.	8 oz. of water or sugar-free beverage
12 p.m. Lunch	1 oz. canned salmon, mixed with low fat mayonnaise, and 1 slice cheese (14 grams protein)
1 p.m.	8 oz. water or sugar-free beverage
2 p.m.	4 oz. Greek yogurt (10 grams protein)
3 p.m.	8 oz. water or sugar-free beverage
4 p.m.	1 oz. canned tuna mixed with mayonnaise
5 p.m.	8 oz. water or sugar-free beverage
6 p.m.	1 piece string cheese (8 grams protein)
7 p.m.	8 oz. water or sugar-free beverage
8 p.m.	4 oz. sugar-free Jello®
9 p.m. until Bedtime	8 oz. water or sugar-free beverage

**Sample 2** This is how you may be eating when you are able to tolerate larger portions (65 grams protein)

8 a.m. Breakfast	¼ cup oatmeal (made with ½ cup Fairlife® milk) mixed with 2 tsp. sugar-free jelly and 3 oz. Greek yogurt (15 grams protein)
9 to 11:30 a.m.	20 fl. oz. water, Crystal Light® or other sugar-free beverages
12 p.m. Lunch	3 oz. tuna salad (with light mayo) and ¼ cup cooked vegetable (21 grams protein)
12:30 to 4:30 p.m.	20 fl. oz. water, Crystal Light® or other sugar-free beverages
5 p.m. Dinner	2 to 3 oz. plain meatloaf (prepared with 1 egg) and ¼ cup smooth tomato sauce, ¼ cup drained, canned peaches (21 grams protein)
5:30 to 7:30 p.m.	20 fl. oz. water, Crystal Light® or other sugar-free beverages
8 p.m.	¼ cup part skim ricotta cheese with 2 tsp. sugar-free raspberry syrup (8 grams protein)
9 p.m.	4 fl. oz. water

### Stage 5:

#### Regular texture, low fat, low sugar foods.

#### Starts eight weeks after surgery.

This is the final stage; your “forever” diet.

Remember to chew your food to the consistency of applesauce. Until now, most of your food has been soft and mushy.

Eat three protein containing meals and an optional planned snack daily. **DO NOT SKIP MEALS!**

Always eat your protein first. Don't fill up on other foods and have no room left for protein.

Don't get in the habit of snacking on “slider foods,” such as crackers, pretzels or chips. These slide down easily, provide little nutritional value and sabotage your weight loss.

You can now eat breads and other starches in very limited amounts (about  $\frac{1}{4}$  cup).

You can now eat raw vegetables, such as salad or raw carrot sticks, but remember to chew them well. Try one component of a salad at a time to make sure you tolerate it well. Also, remember to peel thick skins, such as on cucumbers, until six months after surgery.

If you choose to, you can start to drink coffee at this stage, but continue to drink 64 ounces of non-caffeinated fluid daily.

Everybody is different, but there may be some foods you will likely not tolerate well, such as chicken breast, steak, rice or pasta.

Your intake during the first six months should be about  $\frac{1}{2}$  to  $\frac{3}{4}$  cup of food per meal. After one year, you should be able to eat 1 to  $1\frac{1}{2}$  cups of food per meal.

#### Always follow these rules:

- > Chew everything to the consistency of applesauce.
- > Eat protein first.
- > Eat three protein containing meals a day and don't graze.

#### Example of a regular texture meal

3 oz. grilled chicken breast and  
 $\frac{1}{2}$  cup cooked carrots.



#### Example of a regular texture, protein-containing snack

Six small strawberries and one low-fat string cheese.



### Shopping List for regular texture, low fat, low sugar foods

Starts eight weeks after surgery.

#### Good sources of protein

- Baked, grilled or roasted chicken, turkey, pork loin, beef tenderloin, beef eye roast, turkey burgers, 90% lean ground beef, ground turkey, ground chicken.
- Seafood – steamed or baked fish and shellfish, canned fish
- Beef or chicken stew
- Deli meats – turkey, chicken, roast beef, lean pastrami, corned beef, ham (Not salami, bologna or pepperoni)
- Processed meats – chicken or turkey sausage, turkey linguica, turkey chourico, chicken or turkey hot dogs, Canadian bacon
- Eggs
- Milk and milk products – skim or 1% milk, fat-free or 2% Fairlife® milk, no-sugar-added Greek yogurt, low fat cottage cheese, low fat cheese, low fat Lactaid milk
- Legumes – black, kidney, pinto, white and fat-free refried beans
- Nuts (after 6 months) and nut butters – limit portions, as these are high in fat and calories
- Meat Analogs – e.g. veggie burgers, veggie sausage (Recommended brands: Morningstar Farms,® Quorn,® Beyond Meat,® Field Roast,® Tofurkey,® Gardein®)
- Soy products – tofu or textured vegetable protein

#### Fruits and vegetables

- Fresh fruit, plain frozen fruit or fruit canned in water
- Raw or cooked vegetables – avoid cream or cheese sauces
- Cauliflower “rice” or “mashed potatoes”
- Spiralized zucchini or spaghetti squash
- Cut up stringy and fibrous vegetables, such as celery, spinach, kale, asparagus and spaghetti squash into small pieces to make them easier to chew and swallow.
- Peel the thicker skins of fruits and vegetables (apples, pears, cucumbers) for the first 6 months.
- Only eat the pulp of citrus fruits. Avoid the membranes between the sections.

#### Starches: LIMITED PORTIONS

- Whole grain “lite” bread, bagel thins, pita bread, wraps
- Potatoes (limit to ¼ cup)
- Brown rice (limit to ¼ cup)
- Whole wheat pasta (limit to ¼ cup)
- Whole grain, low sugar cereal (limit to ½ cup)
- No-sugar-added oatmeal cooked in skim milk
- Corn (after 6 months, limit to ¼ cup)
- Peas (limit to ¼ cup)
- Winter squash (limit to ¼ cup)
- Crackers – limit of 4, eaten with protein

#### Fats and Oils: LIMITED PORTIONS

- Olive, canola, corn, soybean and safflower oils
- Soft, tub margarine
- Light, low fat or fat free salad dressing

### Foods to avoid:

- > Tough, dry meat
- > Soft, doughy bread, and rolls
- > Starchy, salty snack foods (also known as “slider foods”), such as potato chips, tortilla chips, pretzels, crackers.
- > Sugary foods, such as ice cream, cookies, cakes, candy, honey, syrups, granola and sugary cereals.
- > Sugar-sweetened drinks.

### Wait six months before consuming:

- > Dried fruit – raisins, dried cranberries, prunes, etc.
- > Corn and popcorn
- > Nuts and large seeds (pumpkin, sunflower) or clumps of seeds.

## Dining Out After Surgery

After surgery, you will eventually be able to eat in restaurants. We do not recommend this until you have been successfully eating soft solids for a few weeks. Even then, you will have to choose very carefully. The same guidelines that you follow at home apply when you are eating in a restaurant.

### Some tips for eating in restaurants:

Check out the menu online before you arrive. This will give you an idea if the food choices are bariatric friendly.

Always include protein in your meal. Early on after surgery, baked fish or meatloaf with gravy are good choices.

Limit your portion of starches or ask for extra vegetables.

Ordering off the children’s menu is generally not a good idea. The foods are often fried (like chicken nuggets) or include pasta (like macaroni and cheese).

Instead of an entrée, choose an unfried appetizer. Consider shrimp cocktail, lettuce wraps or grilled chicken skewers. You can always add a small salad to provide some vegetables.

Be specific in requesting how you want your meal prepared. For example, request no breadcrumbs on top of your baked fish.

Request that all condiments, dressings and sauces be served on the side.

Avoid the breads and rolls.

Ask for a takeout container when your meal arrives and set aside the amount you expect to eat. Take the rest home with you. You’ll get a few more meals out of it!

Be sure you are choosing your food carefully. You don’t want to experience dumping.

Take the time to socialize. Enjoy the companionship of your friends or family, and don’t just focus on the food.



### Meal Ideas

**Starts eight weeks after surgery.**

#### Breakfast

- > 1 slice lite wheat bread (or ½ sandwich thin) with 1 T. sugar free preserves and 2 T. smooth peanut butter (16 grams protein)
- > 2 egg omelet with 1 oz. cheese and ¼ c. sautéed mushrooms (21 grams protein)
- > ½ cup fat free cottage cheese with ¼ cup drained, crushed pineapple (16 grams protein)
- > ½ cup oatmeal cooked in skim milk, topped with mixed berries (10 grams protein)
- > ½ cup plain Greek yogurt mixed with ½ mashed banana (12 grams protein)
- > ½ whole grain cereal mixed with ½ cup low sugar Greek yogurt (12 grams protein)
- > 2 oz. deli turkey with 1 slice cheese, dijon mustard, lettuce and tomato on "lite" whole wheat bread (26 grams protein)
- > Chef's salad with 1 oz. chopped ham, 1 oz. shredded cheese, 1 chopped hard cooked egg on ½ cup salad greens with low fat dressing (21 grams protein)
- > 3 oz. lean hamburger, ¼ cup roasted red potatoes, ½ cup steamed green beans (23 grams protein)
- > 3 oz. grilled salmon, ¼ cup brown rice, ½ cup sliced tomatoes (23 grams protein)
- > 3 oz. chicken thigh, ¼ cup mashed sweet potatoes, ½ cup steamed asparagus (23 grams protein)
- > ½ cup pulled pork on 1 sandwich thin with ¼ cup coleslaw (25 grams protein)
- > 3 oz. chopped chicken mixed with ¼ cup brown rice and ½ cup sautéed vegetables (23 grams protein)

#### Lunch or Dinner

- > ½ cup water packed tuna mixed with 1 oz. shredded cheese, 1 T. low fat mayo and chopped lettuce and tomato in whole grain pita pocket (24 grams protein)
- > 2 deviled eggs, ½ cup baby carrot sticks (14 grams protein)
- > 3 oz. chopped grilled chicken on ½ cup mixed greens with low fat dressing (21 grams protein)
- > 1 oz ham and 2 oz. cheese grilled with 2 slices lite bread, ½ cup steamed baby spinach (23 grams protein)
- > 2 oz. grilled shrimp, 1 oz. feta cheese tossed with ½ cup mixed greens with low fat Greek salad dressing (21 grams protein)
- > 2 oz. taco seasoned ground beef, 1 oz. shredded cheddar, ¼ cup kidney beans, 1 T. low fat sour cream, chopped lettuce and tomato in a whole wheat wrap (25 grams protein)
- > 3 oz. turkey meatballs in marinara sauce on ½ cup spaghetti squash, sprinkled with 1 T. grated cheese (22 grams protein)
- > 3 oz. fish baked with 1 T. whole wheat bread crumbs on top, ¼ cup quinoa, ½ cup cooked carrots (25 grams protein)

#### Protein-containing snacks

- > Sugar-free yogurt
- > Sugar-free pudding made from mix with added protein powder
- > Plain Greek yogurt mixed with fruit
- > Hard cooked egg
- > Fat free cottage cheese mixed with fruit
- > 1 T. peanut butter spread on three saltines

## Possible Side Effects

### Dumping Syndrome

This is more likely to occur after a gastric bypass, but it also has been shown to occur after sleeve gastrectomy. **“Early dumping”** may occur soon after eating, when the intestine fills too quickly with undigested food. It is most likely to occur after eating a sugary food, but is also caused by eating high-fat foods, or eating too quickly. Symptoms can include nausea, fatigue, abdominal bloating, vomiting, diarrhea and sweating. It is not dangerous, but it is unpleasant. Symptoms usually subside in one to two hours.

To avoid dumping syndrome, choose foods that are low in fat and contain no more than 15 grams of sugar per serving. Avoid high-sugar foods such as desserts, candy, pastries, sugar-sweetened drinks, honey, syrups and other foods with added sugar. Even some easily-digested refined starches, such as white bread, white rice, white pasta and potatoes can cause dumping.

Sugary foods can also cause hypoglycemia or **“late dumping”** which occurs one to two hours after eating. It is caused by an insulin surge following sugar and carbohydrate consumption, which then lowers the blood sugar too much. Symptoms could be fatigue, weakness, shakiness, dizziness and/or headache.

Treat low blood sugar by following the 15/15 rule. Consume 15 grams of sugar (½ cup of juice), followed immediately by a small amount of protein, such as a cheese stick or a cracker with peanut butter, and wait 15 minutes. Repeat the process if you are still having symptoms. If hypoglycemia continues to be a persistent problem, contact your health care provider.

Artificial sweeteners do not cause dumping syndrome, although sugar alcohols can cause similar symptoms of bloating, gas and diarrhea.

### Taste Changes

Some foods might taste different and food odors might be more intense after surgery. Taste changes come and go, and a food you dislike one day may be more appealing another day. It is important not to stock up on large amounts of food or supplements before surgery, as you may not like them after surgery.

### Hair Loss

See page 52.

### Lactose Intolerance

This is more likely after a gastric bypass.

Lactose is the sugar found naturally in dairy products, and, if you lose the ability to break it down, you will experience symptoms such as cramping, diarrhea, bloating, gas and nausea after drinking milk.

If you suspect you are lactose intolerant, try substituting Lactaid® milk, Fairlife® milk or soy milk for regular cow’s milk. You should also avoid Carnation® Breakfast Essentials, as this contains dried milk powder, and un-aged cheeses, such as American cheese.

Most people with lactose intolerance can consume fermented milk products, such as yogurt, or aged cheeses, such as cheddar and Swiss. Whey protein isolate or soy protein supplements are the best choice for your protein drinks as they contain no lactose.

### Constipation and Gas

Constipation is a likely problem after bariatric surgery and has several possible causes:

- > Inadequate fluid intake
- > Iron in your supplements
- > Low fiber intake
- > Reduced activity

Aim to drink 64 ounces of fluid and increase your fiber intake by including small amounts of fruits and vegetables at each meal. Exercise daily. Once you get to Stage 4, you can also use fiber supplements, such as sugar-free Benefiber® or add flax meal to yogurt.

If constipation is not alleviated by any of these solutions, you may need to take stool softeners or a mild laxative.

Increased gas is more likely to be an issue after gastric bypass than after a sleeve gastrectomy. Undigested food in the large intestine allows the normally present bacteria to produce more gas.

Everyone is different, but foods that may increase gas production include some fruits and vegetables, legumes, cow’s milk (if you are lactose intolerant), sugar alcohols and carbonated beverages.

Avoid chewing gum and drinking through straws.

Products that may help reduce gas include probiotic supplements, Gas-X,® Beano® and Gaviscon.®

## Avoid Alcohol

Alcohol should be completely avoided for a full year. If you consume alcohol after that, it should be in very small quantities and only occasionally.

### Side effects of alcohol include:

- > Development of ulcers.
- > Increase the likelihood of dumping syndrome.
- > Cause vitamin and mineral deficiencies.
- > Excessive calorie intake that can lead to weight gain.
- > Extremely rapid alcohol absorption. One drink can raise the blood alcohol level above the legal limit in a few minutes.
- > Addiction. Some people transfer an addiction to food to one for alcohol.

## Lifelong Behaviors for Success

- > Sip at least 64 ounces of fluid daily to prevent dehydration.
- > Aim for 60 to 80 grams of protein per day. Keep track of how much protein you are getting from your food so you can supplement with protein drinks or bars if needed.
- > Eat three protein-containing meals per day at regular times. Do not skip meals, even if you are not feeling hungry. Have a Greek yogurt or a cheese stick if you don't feel like having a meal.
- > Limit your starch and sugar intake. They can be consumed in small amounts, but should never be the main part of your meal or snack.
- > No grazing (eating small amounts all day long). If there is a time of day you feel like you need a snack, be sure to choose a healthy snack with protein or some fruits and vegetables.

- > Avoid slider foods — these are usually starchy foods like crackers, pretzels and chips that provide few nutrients and are easy to overconsume.
- > Plan ahead. Having the right foods available at home and packing your meals for work or travel will help prevent unwise choices.
- > Take small bites, chew your food to the consistency of applesauce and eat slowly.
- > Avoid drinking with meals 30 minutes before and 45 minutes after eating solids.
- > Stop eating as soon as you start to feel full. Continuing to eat when you're full may cause pain, nausea and vomiting.
- > Avoid sweet foods, candy, chocolate, ice cream and drinks with sugar to help prevent dumping syndrome and weight re-gain.
- > Avoid fried foods or foods high in fat. Remove all visible fat from foods before cooking.
- > Exercise 30-45 minutes daily. Exercise will help you to burn more calories, tone up and maintain muscle mass, and may also help alleviate constipation.
- > Take your chewable multivitamins, calcium with Vitamin D and Vitamin B12 everyday for the rest of your life.
- > Avoid alcoholic beverages for at least one year after surgery
- > Never smoke again! Smoking greatly increases your risk of developing ulcers.
- > Keep track of what you're eating by writing it down or using an app on your phone. It makes you more accountable and helps you make better choices. Many patients use the apps Baritastic, My Fitness Pal or Lose It.

## Your Surgery



## Illness in the Week Before Surgery

Should you develop a cold, persistent cough, fever or any changes in your condition during the days before your surgery, please immediately notify your surgeon. You will need to be re-evaluated for surgical readiness.

You need to be in the best possible shape for anesthesia. Scheduling can be adjusted to your condition, if necessary.

## Three Days Before Surgery

### Bathing

**You should begin taking two showers per day two days before your surgery. Also shower the morning of surgery.**

You can reduce the number of germs on your skin and decrease the risk of surgical site infection by preparing your skin with a special soap/antiseptic solution called Hibiclens.<sup>®</sup> Chlorhexidine Gluconate (CHG) 4% is a special chemical found in soaps such as Hibiclens and other brands.

Wash carefully from your shoulders to the tops of your thighs, including any folds, and pat dry.

## 24 Hours Before Surgery

### Bowel Preparation

Have a light breakfast and a light lunch.

From noon on, have only clear liquids.

In the late afternoon or evening before surgery, drink a 10 ounce bottle of magnesium Citrate, which is available at pharmacies, grocery stores and other major retail stores.

After midnight, you must take nothing by mouth.

Your stomach must be empty at the start of the procedure to avoid the risk of aspiration.

Your surgeon or bariatric nurse will instruct you on which of your medications, if any, you need to take on the morning of surgery.

## What to bring to the hospital

Bring only the bare necessities to the hospital.

Do not bring any jewelry or more than \$20 cash.

### Some other items that may make your stay a little more comfortable:

1. This guide.
2. List of current medications.
3. Small overnight bag with toothbrush and toothpaste, soap and lotion.
4. Bathrobe.
5. Comfortable, loose-fitting clothes to go home.
6. Notepad for questions.
7. CPAP mask and hose only.

## The Morning of Surgery

### At Home

Do not have anything to eat or drink. You should have stopped clear liquids at midnight.

Only take the medications that you were told to take on your medication list at nurse education. Take with a small sip of water in the early morning.

Do not bring your medications with you. The appropriate medications will be provided by the hospital. Bring a current medication list.

Remember we will not operate on smokers. You may be tested to confirm that you are not smoking the day of surgery. Smoking is not allowed on or around our hospital campus.

Shower in the morning on the day of surgery using the Hibiclens<sup>®</sup> as instructed. Do not use any moisturizers, creams, lotions, powder, deodorant or make-up.

Remove jewelry and leave at home with other valuables.

Do not wear nail polish.

You may wear dentures but you will need to remove them just prior to surgery.

Remove contact lenses. Please bring your eye glasses and/or hearing aids and a case for them, if possible. They will need to be removed before surgery.

### **Family and Visitors**

Surgery does not always start when it is scheduled and can take longer than expected. Your family should not expect word for three to four hours after the time your operation is scheduled to begin.

The surgeon or a hospital representative will contact your family after the operation.

You cannot have visitors in the recovery room so let family members know they will see you about three to five hours after the operation ends.

Visiting hours are 8 a.m. to 8 p.m. Visits should be brief and quiet. Visitors are limited to two people. You will not feel up to talking or entertaining.

**No outside food or drink** is allowed on the bariatric unit.

We are unable to accommodate any overnight guests.

### **Arriving at the Hospital**

Report to the hospital at your scheduled arrival time. Enter the hospital at the main entrance. Go to the pre-surgical registration area.

You will have an identification bracelet placed on your arm. Please verify the information is correct. Remember that staff will ask you the same questions so please be patient. They are cross-checking to make sure all of your information is correct. This is for your safety.

At the SDC, you will be asked to change your clothing and put on a hospital gown and slippers. If you wear dentures, corrective lenses or hearing aids, you will be asked to remove them for safety reasons. The hospital staff will keep all your personal belongings in a safe place and give them back to you promptly after surgery.

You will be asked to sign an operative consent form. Your signature indicates that the procedure has been explained to you, that you understand the risks and benefits of surgery, and that you have no further questions.

Although surgical complications are infrequent, all surgeries have some degree of risk. Your surgical team will use their expertise and knowledge to avoid complications. If a problem does occur, your surgical team will use those same skills in an attempt to solve the problem quickly. The importance of having a highly qualified medical team and the use of a certified facility cannot be overestimated. Some complications can involve an extended hospital stay and recovery period.

### **Anesthesia**

You will meet with anesthesia and sign a consent for administration of anesthesia.

If you have any concerns or past issues with anesthesia or pain management, please discuss with the anesthesiologist.

Your anesthesiologist will discuss the specific risks of general anesthesia with you before your surgery.

When general anesthesia is used, you will be sound asleep and under the care of your anesthesiologist throughout the operation.

Once you are settled on the operating table, you will be connected to several monitors and an intravenous (IV) catheter.

A quick-acting sedative will be given through the IV tubing after you have breathed pure oxygen for a few minutes.

Once you fall asleep, your anesthesiologist will usually slip an endotracheal tube through your mouth into your windpipe to guarantee that your breathing is unimpeded.

An anesthetic gas that you will breathe, and other medications that will be given through the IV catheter will keep you asleep and pain free.

The anesthesiologist spends all his or her time during the procedure ensuring your safety. Any significant changes in blood pressure, heart rate or other vital functions are treated immediately.

Your blood pressure, pulse, respiration, oxygen saturation, temperature, height and weight will be measured.

Two intravenous (IV) lines will be placed in your forearm — one for IV fluids and one extra one. This allows fluids and/or medications into your blood stream. You may also be given some medicine to help you relax.

## **The Operating Room**

Going to the operating room (OR) is not a normal experience for most of us. Your surgical team recognizes the natural anxiety with which most patients approach this step in the process to achieving their goals. Specialists using the most modern equipment and techniques will attend to you.

We believe that a description of the surgery experience will help you prepare for it:

- > Once you enter the OR, the staff will do everything they can to make you feel secure.
- > In the OR, you will be anesthetized and connected to monitoring devices.
- > A gastroscope may be passed into your pouch at the completion of the operation to inspect your pouch for leaks.
- > The surgical procedure will last about one hour. When your surgery is complete and your dressings are in place, you will be moved to the recovery room.

## **The Recovery Room**

You will constantly be connected to monitoring equipment. During this period, fully trained recovery room nurses will remain with you at all times. You can be confident that you will be well cared for in the recovery room.

The nurses in recovery will get you started on pain medication as soon as you need it.

When your initial recovery is completed and all your vital signs are stable, you will be transported to your room.

Most patients have very little memory about their stay in the recovery room. It is common for patients to be drowsy and sometimes confused when they first wake up.

Some patients may come out of the OR with an abdominal drain and/or a urinary catheter in place. If you have a urinary catheter it will usually be removed on the first post-operative morning. The abdominal drain will be removed at discharge.

## **Day of Surgery**

The hospital stay for bariatric surgery generally averages one to two days.

The following schedule is based on a typical course of recovery after weight loss surgery. It may be changed by your surgeon based on your needs or should any problems arise.

## **After Recovery Room**

When you return to your room after surgery, you will continue to be closely monitored by your nurses. The first few days after the operation are a critical time for your stomach and intestines to heal.

Along with monitoring of your vital signs (blood pressure, pulse, temperature, respirations, oxygen levels), your nurses will encourage and assist you in performing deep breathing, coughing, leg movement exercises, and getting out of bed after surgery. These activities prevent complications.

Be certain to report any symptoms of nausea, anxiety, muscle spasms, increased pain or shortness of breath to your nurse. To varying degrees, it is normal to experience fatigue, nausea and vomiting, sleeplessness, surgical pain, weakness and lightheadedness, loss of appetite, gas pain, flatus, loose stools, and emotional ups and downs in the early days and weeks after surgery. You may discuss specific medical concerns with your surgeon or physician.

You will not have anything to eat or drink the day of surgery. Your nurse will provide you with some mouth swabs that you may use to prevent mouth dryness along with a lip balm.

### **Ambulation and Exercises**

With the help of your nurse, you will sit up, dangle your feet and stand at your bedside and walk once you are fully awake and settled on the med/surg floor.

You will start walking the hallways every two hours on the day of surgery. Continue frequent walking until discharged and continue at home. It may be uncomfortable, but each time you get out of bed it will get easier.

Each day you will notice your strength returning, with less and less pain. Changing positions in bed, walking and prescribed exercise promotes circulation. Good blood flow discourages the formation of blood clots and enhances healing. Getting up, walking and doing your post-operative exercises will speed up your recovery and minimize complications. Walking also helps to alleviate gas pain.

### **The proper way to exercise your feet and legs is to follow these steps:**

- > Push your toes of both feet towards the end of the bed (as in pressing down on a gas pedal).
- > Pull your toes toward the head of your bed, then relax.
- > Circle each ankle to the right, then to the left.
- > Repeat three times.



### **Deep Breathing and Coughing Exercises**

To enhance your recovery your nurse will instruct you in coughing and deep breathing exercises.

Coughing and deep breathing is important so that you will loosen any secretions that may be in your throat or lungs and to help prevent pneumonia. Deep breathing also increases circulation and promotes elimination of anesthesia.

### **The proper way to deep breathe and cough is to follow these steps:**

- > Inhale as deeply as you can.
- > Hold breath for two seconds.
- > Exhale completely.
- > Repeat the above steps three times.

When coughing, the cough should come from the abdomen, not from your throat. Hold your pillow on your abdomen for support.

### **Incentive Spirometer**

You will be shown how to use an "incentive spirometer" to help you expand your lungs and prevent post-operative pneumonia.

The proper way to use an incentive spirometer is to follow these steps:

- > Sit in an upright position.
- > Exhale completely.
- > Put the mouth piece to your mouth and inhale slowly keeping the flow indicator within the prescribed range.
- > At the top of the inhaled breath hold it for three to five seconds, and then exhale slowly.

You will use this 10 times an hour while awake in the hospital.

You will take it home with you and use it four to five times a day for a week after surgery.

## Pain Control

You may feel pain where the incision was made, from gas or from the position your body was in during surgery. Your comfort is very important to your medical team. Although there will always be some discomfort after an operation, keeping your pain under control is necessary for your recovery. When you are comfortable you are better able to take part in activities such as walking, deep breathing and coughing. These activities are imperative in order to recover more quickly.

If you are feeling pain after surgery, you will be able to push a button on a cord to administer pain medication to yourself. This method of administration is called "patient-controlled analgesia" (PCA).

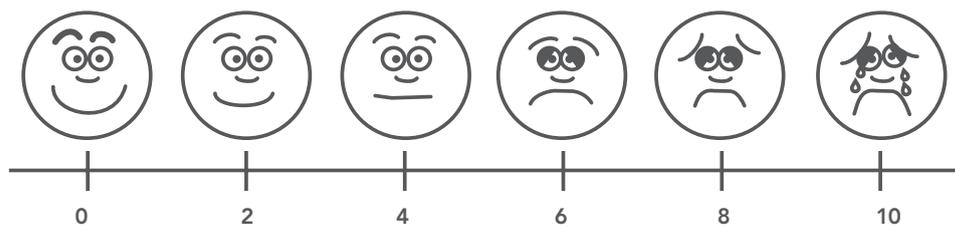
Your nurses and doctors will ask you to rate your pain. We do this so that we can tell if the pain is getting better or worse. You will be asked to rate your pain using a pain scale, such as the examples below.

## Pain Scale Examples

### 0-10 Numeric Pain Distress Scale



### Wong-Baker FACES® Pain Rating Scale



	0	2	4	6	8	10
<b>Intensity</b>	No Hurt	Hurts Little Bit	Hurts Little More	Hurts Even More	Hurts Whole Lot	Hurts Worst
<b>Intensity</b>	None	Mild	Discomforting	Distressing	Horrible	Excruciating (McGill)
<b>Distress Graphic</b>	None No pain	Annoying Little pain	Uncomfortable Medium pain	Dreadful Large pain	Horrible	Agonizing Worst possible pain
<b>Pediatric</b>	No hurt	Hurts a little bit	Hurts a little more	Hurts even more	Hurts a whole lot	Hurts the most

**No matter which form of pain control you receive, here are some pointers to help you be more comfortable:**

- > Tell your nurses and physician if you are having pain, particularly if it keeps you from moving, taking deep breaths, and generally feeling comfortable.
- > Everyone is different, so keeping your nurses informed about how you feel will help them help you.
- > Plan ahead for pain. If you are comfortable lying down, you may still need pain medication to get up and walk around.
- > Keep ahead of the pain. Don't wait for the pain to be at its worst before you push the PCA button or ask for pain medicine. Pain medication works best when used to prevent pain.
- > The risk of becoming addicted to pain medicine is very low when it is used for a specific medical purpose, such as surgery.

## First Day After Surgery

**The morning after surgery you will likely be fairly comfortable. Beginning early in the morning:**

You will be weighed. It is very common to gain 10 to 15 pounds of water after surgery. This will resolve within the first week.

If you have a catheter in your bladder, this will be removed as long as your urine output is good during the night.

Your heart monitor will be removed along with the blood pressure cuff and oxygen sensor if your vital signs are stable.

You will be given a bottle of water and a medicine cup. You are to sip one ounce of water every 15 minutes. You will pour the next one and do the same. After two to three medicine cups, and if you are having no difficulty, you may sip from a cup slowly until lunch time.

Remember that your stomach is a lot smaller than before. If you feel full or nauseated, you are drinking too fast.

If you burp a lot, this is also a sign of feeling full.

Around noon, your PCA will be discontinued. You can receive an oral liquid pain medication or crushable pill. Remember to keep ahead of the pain.

At lunch time, you will be served a tray with sugar-free clear liquids (Stage 2). Some items on it may be sugar-free Snapple,<sup>®</sup> water with a Crystal Light<sup>®</sup> packet, sugar-free Jello<sup>®</sup> and a clear broth. Take only as much as your body wants and sip slowly. Be aware that the post-operative diet is very limited in its choices.

Most patients feel no nausea, but if you do experience please let your nurse know. There is medication we can give you.

You will be up and walking every two hours and doing your leg exercises.

You will be using the incentive spirometer ten times an hour while awake and doing your deep-breathing exercises.

At dinner time, you will be given a tray with sugar-free full liquids (Stage 3). Some of the items on the tray may be clear liquids, a smooth soup, and 1% milk with a No Sugar Added Carnation<sup>®</sup> Breakfast Essentials Light Start packet. Again, wait five minutes in between sips. If you feel full or nauseated, you are drinking too fast. You will have a choice of soups, protein drinks and other beverages.

One of the bariatric dietitians will visit you and go over the sugar-free protein liquid diet that you will go home on and stay on for two weeks. They will also give you a date to advance your diet and a two-week, post-operative appointment to meet with them. It is imperative that you follow the diet to prevent complications and discomfort.

## Going Home

Your date of discharge will be determined by your surgeon based on your individual progress. Prior to your discharge, specific dietary and activity instructions will be reviewed with you, along with precautions and situations when your surgeon should be notified. Discuss your concerns with your nurse or discharge coordinator.

A list of medications that you will take after surgery will be reviewed with you at the time of your discharge. All your medications should be taken in liquid form, chewable or crushed for one month. You will need to take omeprazole for 30 days after surgery. After one month, you should be able to swallow a tablet the size of a Tylenol® caplet.

You will not begin your vitamin supplementation until one week after surgery. Please closely follow the dates you are instructed to start or restart your other medications.

If you are currently taking an extended release or sustained release form of medication, you will need to discuss with your prescriber a different form of medication (i.e. immediate release) to take after surgery. Please call the surgeon's office if you have any questions.

You should not use any non-steroidal anti-inflammatory (NSAIDs) and aspirin products such as ibuprofen, naprosyn, Motrin,® Advil,® Excedrin® and Aleve® as these types of pain relievers can cause ulcers to your stomach after surgery. You may use liquid Tylenol® (acetaminophen) for 30 days after surgery.

## Follow-up

Your first office visit with your bariatric health care provider will be scheduled seven to 10 days after your surgery. See 5-year follow-up appointment schedule below.

Your discharge instructions will tell you when you should return to the office for a follow-up. Please call your surgeon's office the day you arrive home (or on Monday, if you were discharged over the weekend) to make an appointment if one was not made at the time of discharge.

Please call your surgeon's office with any surgical concerns between scheduled visits.

Do not leave your primary care physician out of the loop and do not hesitate to contact him or her with medical concerns. Remember your commitment to maintain follow-up appointments with the program for five years.

## 5-year Follow-up Appointment Schedule

One to Two Weeks	Six Weeks	Three Months	Six Months	Nine Months	12 Months	18 Months	24 Months*
Surgeon, NP or PA Dietitian	Nurse Practitioner/ Physician Assistant	Surgeon/ Nurse Practitioner Lab Check	Surgeon/ Nurse Practitioner Dietitian Lab Check	Nurse Practitioner/ Physician Assistant	Surgeon Lab Check Dietitian	Nurse Practitioner/ Physician Assistant	Surgeon Lab Check Dietitian

\*After the second year, the surgeon, nurse practitioner or physician assistant wants to see you once a year thereafter for five years.

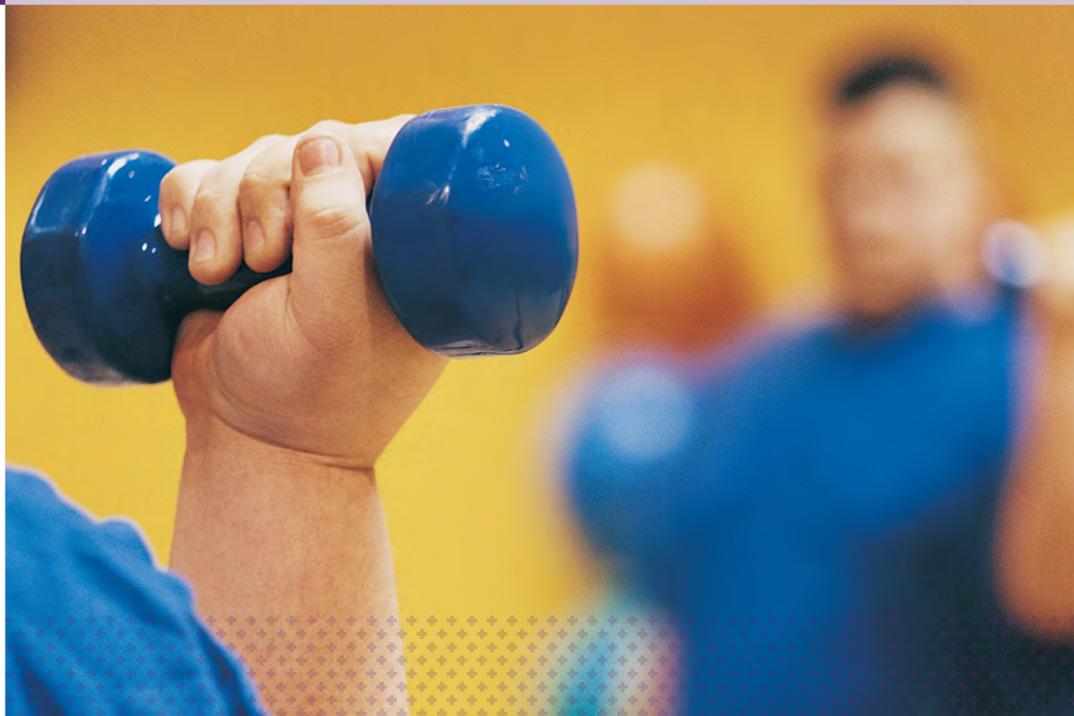
## Life After Surgery

### Congratulations!

Be accountable.

Be proactive.

Learn how to take good care of yourself now and think long-term.



## Post-Operative Expectations

There are many things you will experience once you are home recovering. Plan on taking things easy. Your body is still recovering from the stresses of major surgery and weight loss occurring during the recovery period.

### Recovery Expectations

Follow your post-operative instructions exactly.

Your new stomach is very vulnerable during the first four to six weeks, especially to over-distention or s.

**You will not feel full when you eat,** so eat according to portion size and not until you feel full.

When your stomach is full, you may feel a sensation of cramping, pressure, burping or hiccups, which should resolve as your stomach empties.

Your new stomach becomes less sensitive at about eight to 12 weeks and will feel better.

Refer to the Post-Operative Nutrition section for specific dietary instructions.

Keep up your fluid intake with small, frequent sips. 64 ounces of fluid a day is the recommended minimum intake.

**Remember that the success of your surgery depends on you! The behavior modification that accompanies surgery is a lifetime commitment. Be accountable.**

### Post-Operative Activities

For the first several weeks after your surgery, you may feel weak and tire easily after activity. However, try to be as active as possible.

Plan to walk as much as you can tolerate without becoming too tired.

You may climb stairs and perform light household duties as tolerated upon your return home.

Do not drive until at least one week after surgery and you have been off of the pain medication.

Avoid lifting anything heavier than 20 pounds for three to four weeks after surgery.

You may return to work generally two to three weeks after surgery. If you require additional time, please speak to your surgeon.

Resume traveling short distances as soon as you feel strong enough to make the trip.

We do not recommend long-distance traveling for the first four to six weeks after surgery. Consult with your bariatric health care provider.

Avoid sitting and standing without moving for long periods. Change positions frequently while sitting and walk around while standing. These strategies will help prevent blood clots from forming in your legs.

Remember that most patients will feel tired, less energetic and sore for several weeks following surgery as these are major operative procedures and you will be losing weight as well as healing wounds.

### Wound/Incision Care

Your wound/incisions need minimal care. Your incisions are closed internally with dissolvable sutures. Surgical staples are seldom used. If used, they will have to be removed, usually around your tenth post-op day. You may have steri-strips on your incisions under your dressing. Do not remove these; they will fall off on their own.

Leave the incisions open to air whenever possible to help prevent suture infection. If the wound is oozing or catching on clothing you may apply a band aid.

You may shower, but pat dry the incision area well.

Do not use any Neosporin or other ointments on your incisions.

No swimming, hot tubs or tub baths until two weeks after surgery or when incisions have healed and scabs are gone.

Despite the greatest care, any wound can become infected.

**Signs and symptoms of a wound infection may include:**

- > Increased redness and swelling.
- > Yellow or green drainage with or without odor.

> Increased tenderness or pain.

> Fever above 101°F

If you have any of these signs or symptoms please report this to your surgeon right away. Call the office at 508-273-4900.

## Medical Concerns After Surgery

**If you experience any of these symptoms, contact your surgeon right away. Call the office at 508-273-4900.**

- > Fever of 101° F or above, shaking or chills.
- > Yellow/green and/or odorous wound drainage.
- > Shortness of breath, chest or shoulder pain, rapid pulse.
- > Inability to eat or drink.
- > Persistent vomiting.
- > Leg pain, redness or swelling.
- > Pain unrelieved by pain medication.
- > Any unusual symptom.

## Post-operative Questions or Urgent Issues

**Call our office at 508-273-4900.**

(Put this number in your cell phone now!)

If you have an urgent issue, do not leave a message or send an email. You must speak with someone. Wait for the next available attendant or press the Urgent Line option. There is also a Non-Urgent Nurse Line option for routine questions.

## Problems in the First Six Weeks After Surgery

Call our office **before** going to Tobey or Charlton Memorial emergency room or your primary care doctor's office. In a severe emergency, call 911 right away. Have a friend or family member call our office to let us know you are having problems.

## Preventing Readmissions to the Hospital

**We need to work together.**

- > Follow diet and medication instructions (some nausea, vomiting and pain is not unusual).
- > Have appropriate help at home when discharged.
- > Call early if you are having problems.
- > Same-day and next day appointments are available. Call as early as possible.
- > Outpatient IV and nausea medications will be used if you are having difficulty getting adequate fluids.

A bariatric surgeon is always available 24 hours a day, seven days a week. If you call after 5 p.m. or on a weekend, our answering service will contact the surgeon on call. If you do not receive a call back within 15 minutes, call again.

## Possible Early Post-Operative Problems

### Swelling and Bruising

Moderate swelling and bruising are normal after any surgery. Severe swelling and bruising may indicate bleeding or possible infection.

### Discomfort and Pain

Mild to moderate discomfort or pain is normal after any surgery. If the pain becomes severe and is not relieved by pain medication, please contact your surgeon. If pain is associated with vomiting, nausea or shortness of breath, contact your surgeon.

### Numbness

Small sensory nerves on the skin are sometimes cut when the incision is made. The sensation in those areas usually returns within two to three months. Be especially careful not to burn yourself if using heat pads.

### Itching

Itching and occasional small shooting electrical sensations within the skin frequently occur as the nerve endings heal. These symptoms are common during the recovery period. Ice, skin moisturizers and Vitamin E oil may be helpful.

### Redness of Scars

All new scars are red, dark pink or purple. The scars take about a year to fade. We recommend that you protect your scars from the sun for a year after your surgery. Even through a bathing suit a good deal of sunlight can reach the skin and cause damage. Wear a sunscreen with a skin-protection factor (SPF) of at least 30 when out in sunny weather.

### Nausea

Nausea is often related to fullness, sensitivity to odors, pain medication, not eating, post-nasal drip and/or dehydration.

Take your nausea medicine as prescribed by your surgeon.

Odors can sometimes be overwhelming after surgery. If food odors bother you, try to have someone else prepare your meals or prepare bland foods.

Learn to recognize when you are full. This will not happen immediately, but by eating slowly it will become easier.

Should you have difficulty drinking due to nausea, start sipping clear liquids only until the nausea stops. You may also try sipping peppermint tea, fennel tea, decaffeinated green tea or water with lemon (hot or cold).

If you believe that your pain medication is the cause of your nausea, please call your surgeon's office.

Stay hydrated. Fluids should be continuously sipped all day long to prevent dehydration. You need a minimum of 64 ounces of fluids per day.

If you cannot maintain fluid intake, contact the office.

### Vomiting

If you begin vomiting, sip clear liquids with a teaspoon (clear and very diluted juice, broth or herbal tea). If these are tolerated well, advance to other allowed fluids.

Should you have difficulty swallowing foods or keeping foods down, please call your surgeon. Vomiting may indicate that the stomach is blocked. Some people experience a foaming or spitting up when the stomach is full.

Persistent vomiting can lead to dehydration and electrolyte imbalance and can cause vitamin deficiencies.

If vomiting is persistent, contact your surgeon since vomiting can lead to a situation that needs to be taken seriously.

## Eating-related behaviors that may cause vomiting/foaming

- > Eating too fast.
- > Eating too much food at once.
- > Eating solid foods too soon after surgery.
- > Drinking liquids either with meals or after meals.
- > Eating foods that do not agree with you.
- > Not chewing food properly.
- > Eating food that is too dry.
- > Lying down after a meal.

## What you can do to prevent dehydration

- > Buy a sports bottle and take it with you everywhere so you can sip water all day.
- > Drink at least 64 ounces of fluids per day. Increase this amount if you are sweating.
- > Avoid caffeinated beverages. They are diuretic and can dehydrate you.
- > If you have difficulty drinking due to nausea, suck on ice chips or make popsicles with Propel Fitness Water® or protein drinks. Propel Fitness Water® is from the makers of Gatorade® and contains some minerals and vitamins, but only 10 calories.
- > Do not use regular Gatorade.® It contains a lot of sugar.

## Dizziness

Some people may experience dizziness after surgery due to dehydration. Remember to drink at least 64 ounces of fluid daily.

Medications for high blood pressure or diabetes may need to be adjusted by your medical team after significant weight loss.

Remember to get up from chairs or bed slowly.

If you are experiencing dizziness, please call the office.

## Dehydration

Dehydration will occur if you do not drink enough fluids or if you are losing excessive fluids through vomiting or diarrhea.

Symptoms include fatigue, dark-colored urine, dizziness, fainting, lethargy, dry mouth and nausea.

Contact your surgeon if you believe that you may be dehydrated. Your surgeon will determine further treatment.

## Diarrhea

It is normal for you to have one to three bowel movements of soft stool per day. It may be foul smelling and associated with flatulence. Some patients have diarrhea for a few months.

Your stool will be soft until you eat more solid food.

Lactose intolerance and high fat intake are generally the culprits of loose stool and diarrhea. Refer to page 37.

Sugar alcohols may cause diarrhea and gas. These are often found in protein shakes, protein bars, and sugar-free candy. (See Post-Operative Nutrition section.)

Look at what you are eating. If loose bowel movements continue, eliminate fruits and juices.

If you have persistent cramping and loose stools (more than three per day) please call your surgeon's office.

## Constipation

After restrictive surgery, the amount of food consumed is greatly reduced and the quantity of fiber or roughage consumed may be much smaller. Correspondingly, the amount of bowel movements will be diminished, causing less frequent bowel activity and sometimes constipation. If this becomes a problem, a stool softener may be needed to relieve constipation.

Make sure you are drinking enough water and exercising to help prevent constipation.

If constipation persists for more than two or three days use Miralax<sup>®</sup> or Milk of Magnesia<sup>®</sup> and follow the directions on the packaging. If you continue to experience constipation contact your surgeon.

## Emotional Fluctuations

It is not uncommon for people to have a period of emotionality in the weeks following surgery. This may be hormonal in nature, as hormone levels are rapidly changing, or it may be related to major food changes and some grief and even anger at these changes. If on psychiatric medications, make sure you are taking your meds correctly! Seek support or advice from the behavioral health team (or your own outpatient providers) if this issue persists or is severe. (Also refer to page 57.)

## Flatulence (Gas)

It is important to remember that everyone has gas in the digestive tract. Gas comes from two main sources: swallowed air and normal breakdown of certain foods by harmless bacteria that is naturally present.

### Helpful hints:

- > Eat your meals more slowly, chewing food thoroughly.
- > Lactose intolerance is generally the culprit of gas, too. Discontinue the use of regular cow's milk. Try Lactaid<sup>®</sup> milk, Fairlife<sup>®</sup> milk, soy milk and yogurt.
- > Avoid chewing gum and drinking through a straw.
- > Eliminate carbonated beverages. They can cause bloating, distention, pain and interfere with healing of the pouch.
- > Remedies include probiotics, natural chlorophyll Gas X,<sup>®</sup> Beano<sup>®</sup> and Gaviscon.<sup>®</sup>
- > Avoid sugar alcohols.

## Yeast Infections/Thrush

You may notice that after surgery you may have a white, cottage cheese-like coating on your tongue. The tongue could also be very red and inflamed. Most likely you have thrush — a yeast overgrowth in your mouth. Often this is due to antibiotics peri-operatively. Call your surgeon if you have an oral or vaginal yeast infection or a rash on your skin.

## **Sexuality / Pregnancy**

You may resume sexual activity when you feel physically and emotionally stable. Women need to use a barrier form of birth control, as fertility may be increased with weight loss. However, oral contraception may not be absorbed the same for Roux-en-Y gastric bypass patients.

Remember you cannot restart your birth control pills until 30 days after surgery. Please discuss contraception with your gynecologist.

We recommend that you use a barrier form of birth control. Many severely obese women are infertile, because the fatty tissue soaks up the normal hormones and makes some of its own as well. However, as weight loss occurs, this situation may change quickly. This happens often enough that we need to give you a special warning.

You may start planning a pregnancy 18 to 24 months after surgery, when it is safe for you to conceive. It is imperative not to become pregnant before this time, since we want both you and the baby to be healthy and safe.

It is unwise to conceive during the rapid weight loss phase, as this may harm you and the baby since adequate nutrition may not yet be established.

When you become pregnant we ask that you contact your OB/GYN and your surgeon's office to schedule an appointment. We will also advise you to set up a nutritional visit with a bariatric dietitian.

## **Possible Late Post-Operative Problems**

Late complications with bariatric surgery have been gratifyingly low. The most frequent late complication is weight gain due to grazing, inappropriate food choices or overeating.

The following are some possible side effects of bariatric surgery. They may not happen to everyone and they are generally not permanent.

## **Hernia**

To recognize a hernia, you may notice a bulge under the skin of your abdomen. This is due to a weakness in the abdominal wall. You may feel pain when you lift a heavy object. The pain may be sharp or dull and you may experience vomiting.

Minimize the risk of developing a hernia by avoiding heavy lifting after surgery. If you notice that you may have symptoms of a hernia please call your surgeon.

## **Gallstones**

Gallstones are not a complication of surgery, but rather a complication of rapid weight loss. If you experience any abdominal pain, nausea and vomiting especially after meals, contact your surgeon's office.

## **Bowel Obstruction**

Severe abdominal pain and persistent vomiting is most often a sign of obstruction. Call your surgeon. This is a surgical emergency and should be evaluated by a surgeon familiar with bariatric surgical patients.

## **Marginal Ulcer**

For Roux-en-Y gastric bypass patients, a marginal ulcer is an acid-peptic ulcer that can occur in your stomach. A marginal ulcer is much more likely to occur in smokers, patients who continue to use non-steroid anti-inflammatory drugs (NSAID) such as ibuprofen, Aleve,<sup>®</sup> or patients who consume alcohol and coffee. It can be treated with medications. Only rarely is surgery required as treatment. If you have any persistent burning pain or difficulty tolerating foods contact your surgeon.

## Stricture

Weight loss surgery patients can experience a stricture or narrowing at the site of the surgery in the stomach. This is a complication that rarely occurs in bariatric patients and may require a procedure for correction.

## Iron Deficiency Anemia

Iron deficiency anemia is a complication of significance in the long term. It usually occurs in menstruating women who do not take extra iron supplements. It is almost always preventable. It is not difficult to treat, but must be recognized first. This is one of the important reasons for long-term follow-up. Read more about the needed supplements in the diet guidelines.

## Bone Loss

Weight loss surgery may affect your absorption of calcium. This may result in osteopenia or osteoporosis. It is important to continue your calcium supplements for life. Consult with your primary care provider for any further evaluation.

## Hair Loss

Many people experience some hair loss starting at about 3 to 6 months after surgery, generally due to the stress of surgery and rapid weight loss, but can also be related to nutrient deficiencies and hormone changes. Some people take biotin supplements in doses of up to 5000 micrograms (5 mg daily).

Although you may find more hair in your brush or in the drain, most people do not have noticeable hair loss.

Hair loss after surgery is not permanent. It will grow back!

The best preventive measures for hair loss are to take your supplements as recommended and consume 60 to 80 grams of protein daily.

## Gastroesophageal Reflux Disease (GERD)

Changes in the stomach anatomy can cause or aggravate symptoms of heartburn, chest pain, regurgitation, nausea and difficulty swallowing. This is more likely following a sleeve gastrectomy.

Eating high-fat, spicy or acidic foods and drinking caffeinated or carbonated beverages also contribute to GERD symptoms.

Eating slowly, chewing your food to the consistency of applesauce, not eating and drinking at the same time, and not lying down after eating may also help control GERD symptoms. You may also need to take medication.

## Additional Side Effects

Refer to page 37 for more information on the following:

**Dumping Syndrome**

**Taste Changes**

**Lactose Intolerance**

**Constipation and Gas**



### **Pre-op Psychological Preparation**

- Look honestly at your own eating and exercise habits. What needs to change? Do you notice any mental blocks/barriers?
- Understand what your coping skills are when stressed or emotional events occur. Start trying new and healthier responses.
- Feel or perhaps grieve the changes that are coming with your new Lifestyle. Do this before surgery. Feeling uncomfortable or at a loss is normal.
- Enlist your support system: at home and at work. Let people know what you need. Support is vital for long-term success.

Begin immediately to make the lifestyle changes: see page 12. Don't procrastinate!

## Post-op Success

The post-op period is truly the rest of your life, so creating a healthy lifestyle in the first year is key to lifelong success. Losing weight/health problems helps in so many ways. It does not, however, fix everything. There will always be challenges in life! Many patients find themselves slipping into old habits, especially after the first year or two. Following are some ideas to help you and are a preview of issues which can arise.

### Post-op Support Groups

Your surgeon believes that patients who go to support groups after surgery are most likely to be successful in the long-term, and research has proven this to be true. Support groups are held throughout each month in multiple locations and are led by a dietitian and a behavioral health practitioner. Sometimes there are guest speakers as well. Topics for support groups will be listed in the newsletter published every four months and can be found on the Southcoast Health website at [www.southcoast.org/weightloss](http://www.southcoast.org/weightloss).

### Body Image

Losing weight and changing your body has many advantages, but some patients struggle to shrug the “fat girl” or “big guy” persona. Although everyone seems to enjoy the freedom of shopping for new and stylish clothing, some patients are unhappy about the excess skin and exposing more of their body. Others have “perfectionistic” tendencies that result in minimizing the positives and focusing on parts of their body that still seem less than what they desire. Some patients have never focused on their bodies until weight loss surgery.

Learning to be kind to yourself and treating yourself like a friend is important. Understand it is also very normal for it to take several years to settle into feeling that you are a smaller size person, especially for those who have been heavy since their teens or childhood. It can also be strange to not be recognized by others you meet due to your changed appearance.

This is truly a journey of several years. See realistic expectations on page 58.

## Sugar/Carb Sensitivity

Some patients will notice, as they advance their food choices over time, that there is once again a craving for sweets or simple carbs. Some patients do feel they have been “addicted” to these foods in the past and if reintroduced, may once again be difficult to control. It can be scary to have this type of hunger resurface after so many months. It is important that you pay attention to your own reactions to certain foods and make decisions to avoid these. Weight regain often comes from returning to old foods that once again start “calling you” and then get out of control. Eating smaller portions of trigger foods will still result in weight gain.

### Addiction/Obsessions

Alcohol, drugs, gambling, spending/shopping, over-exercising, etc....there are many behaviors that can become a problem. Even if you have never experienced drug or alcohol addiction, you may be susceptible after your surgery. Research shows that almost 1 in 5 patients may develop alcoholic dependence or abuse post operatively and we have seen this weekly within the program. Many patients were non drinkers or social drinkers only prior to surgery. Alcohol should be avoided completely for the first year and limited use after that. This may mean a drink or two in a month. Returning to sugars/carbs (above), is problematic as well as any other obsession that has the potential for harm. Finding healthy outlets and hobbies is key. This general topic is often discussed at support groups and in the workshops.

## Support System

As with any major life change, having a good support system is important. Not just in the weeks following surgery, but over the next few years. Find people who have had surgery and are doing well as well as people in your home and workplace. You may be surprised how much support you can have if you reach out. Don't isolate yourself if you are struggling. Find a safe person to be honest with.

## Mental Health

Many people have depression, bipolar disorder, anxiety, PTSD or trauma. If you have struggled with these issues in the past or at present, please see your mental health providers regularly following surgery so they can help you navigate the many changes in your life. STAY ON all medications and make sure they are regular release meds. Dosing changes may also be needed to achieve best results.

If you have never had treatment, but suspect you are falling into depression or experiencing anxiety or difficulty adjusting to life after WLS, please contact our behavioral health team or your PCP for a referral. Getting weight loss surgery is really about being the "best you" possible, so don't let mental health concerns block you from your goals. Find a therapist who can help you with new coping skills.

## Realistic Expectations

Improvements to your health is the main measure of success. Not all patients will lose all the weight/achieve the BMI that they desire. Weight is only one measure of success and other health improvements are ultimately the goal. Be aware of your expectations. Talk to successful bariatric patients to discover the many non scale (NSV) victories that you will enjoy!

## Lifelong Journey

The Southcoast Health Weight Loss Surgery program wants to help and assist you all along this journey.

We know there will be ups and downs in your life. You will possibly experience some weight regain. Contact us and come in sooner rather than later so we may help you. Remember you promised to be an active patient in our program for at least five years!

### We can help you in the following ways:

- > Support groups
- > Back on Track
- > Bariatric Counseling
- > Referrals to local, preferred community providers and resources

## Exercise & Fitness

Exercise helps with weight loss, but it also:

- > Boosts metabolism
- > Is heart-healthy
- > Improves psychological and emotional well being
- > Builds strength and endurance
- > Helps cope with stress and fight anxiety
- > Tones muscles
- > Improves movement in joints
- > Improves quality of sleep
- > Lowers blood pressure
- > Gives you more energy

**Exercise is essential for successful weight loss. It is best to begin a program as early as possible.**



### Pre-Op Preparation

- > Honestly **LOOK** at exercise and activity in your current lifestyle.
- > **THINK** about what activities or sports you have ever enjoyed.
- > **COMMIT** to moving and exercising. What are your old attitudes or barriers?
- > **FIND** an exercise buddy who already exercises regularly.
- > **GET** going now. Don't procrastinate, it will get easier!
- > **TRACK** your steps or log your exercise.

### **Pre-op Exercise: Why?**

If exercise is new to you, take a deep breath. We know the idea of exercise can be overwhelming, confusing, embarrassing or frustrating and something so easy to avoid. Don't worry, just start somewhere. There are so many reasons it will help you.

Exercise helps you lose weight before surgery. This will not only make surgery easier, but it will make your recovery easier as well.

Exercise puts you on the road to better health. When done regularly exercise makes you feel good.

Exercise helps maintain good joint mobility.

### **Post-op Exercise: What?**

Exercise is different than being active. AHA and ACSM recommend 30 minutes of moderate activity ( climbing stairs, walking around the yard) daily. Exercise is continuous activity using major muscle groups over a more extended time period that results in increasing heart rate.

Every person must start from where they are currently, so there are issues to consider:

Physical limitations can range from being wheelchair bound to having a sprained ankle, but neither means you need to miss out on exercising. Most activities and exercises can be modified so people of all abilities can participate. For anyone with a disability or mobility issue, it is vital to be as physically active as possible. Equally, it is important to find ways to overcome any barriers you may face as you try to become physically active.

### **When faced with physical challenges consider:**

#### **Physical therapy or working with a personal trainer.**

Physical therapist and personal trainers are used by people of all fitness, social and economic levels to help make lifestyle changes that they could not achieve by themselves.

**Aqua (pool) therapy.** Water activities can be started two to three weeks after surgery. Water activities are non-weight bearing and therefore are gentle to painful joints. Water activities can improve strength, flexibility and cardiovascular health, and decrease body fat.

**Chair exercises** such as leg extensions, lifting light arm weights, etc.

**Yoga.** Yoga can be beneficial for individuals with disabilities or chronic health conditions through both the physical postures and breathwork. Each pose can be modified or adapted to meet the needs of the individual. Yoga can even be performed while seated in a chair or wheelchair.

### **What to do?**

Cardiovascular (aerobic) exercise raises your heart rate to a level where you can still talk but you start to sweat.

Any cardiovascular exercise will work. Pick something that feels good and you enjoy (for example: walking, hiking, biking, snow shoeing, jogging, dancing, fitness classes, exercise videos, swimming, water exercise).

**Strength training** (anaerobic) exercise strengthens muscles and gives you more endurance. It gives you the ability to perform everyday activities easier and helps protect your body from injury. Stronger muscles also lead to a boost in your metabolic rate, which means you'll burn calories even when your body is at rest. Every pound of muscle burns seven calories while every pound of fat burns two.

Examples of strength training include free weights, nautilus machines, resistance bands, "tone" classes.

Don't be afraid to work with a personal trainer.

## How much? When?

Start now and begin a routine. Once you have had surgery, walking is fine immediately. The medical staff will let you know when it's time to start with more. Generally, after 4 weeks, you can get into a more vigorous routine with some strength training.

Consistency is key. Exercise 3 to 5 times a week for at least 30 minutes. Work up to an hour as time goes by. You may find it so wonderful to be able to move easily that you will begin to exercise or move briskly almost every day!

## Myths About Exercise

**Exercise takes too much time.** A 30-minute walk is only 2% of your day.

**Exercise costs too much money.** A walk outdoors or through the mall/store is free.

**Exercise makes you tired.** Actually, exercise gives you more energy.

**The older you are the less exercise you need.** Exercise becomes even more important to prevent physical decline and allows you to live independently.

**You have to be athletic to exercise.** There are fitness programs for all skill levels.

**Exercising is boring.** Finding an activity you enjoy will make it fun and seem less like work.

**Weight lifting will make you bulky.** Strength training helps reduce body fat, increase lean muscle mass and burn calories. You do NOT want to lose muscle; in fact, you need MORE!

## Overall Exercise Guidelines Before and After Surgery

- > 30 minutes of purposeful exercise most days of the weeks (can be in segments of 5 to 10 min).
- > Never stop being active. Lifelong exercise is the goal.
- > Incorporate strength training into your exercise regimen (two to three days a week).

## Extra tips to increase activity

- > Use free phone apps, online resources like YouTube, and your cable programs on demand
- > Park your car far away from the entrance and walk.
- > Take the stairs instead of the elevator.
- > Walk during lunch breaks.
- > Walk or ride your bike to the store.
- > Go for a walk when bored instead of watching TV.
- > Run around outside with your children or pet.
- > Use a fitness tracker to challenge yourself.

## How to stick with your exercise regimen

- > Set realistic goals, start small and easy.
- > Exercise should be fun. Find enjoyable activities and don't be afraid to try new things.
- > Exercise with others. Ask for support from family and friends or take an exercise class.
- > Establish regular workouts and set a schedule in advance.
- > Use exercise logs to record achievements.

## Exercise for the Rest of Your Life.

One of the gifts of WLS and sustained weight loss is the ability to enjoy activity and exercise. AIM HIGH! You can become FIT and HEALTHY!

## Journal

We strongly recommend that you start a journal to accompany you through your journey. Along with pictures, measurements and milestones, the journal will help you put into words the changes that you are going through. You will treasure this work and will be glad to flip back through the pages to see your transformation.

1. How does it feel to make a commitment to living a healthier, happier life?
2. What will you do to guarantee you will stick with it?
3. What I like most about myself is:
4. What I do to enhance all the good qualities in me is:
5. When I look in the mirror I am a different person and what I like about this person is:
6. What I don't like about that person is:
7. What do you plan to do to improve your self-esteem and self-image?

To get you started, we have given you some questions to complete. This is your journal; nobody is going to ask you to share it with anyone, unless you want to do so. Be truthful and honest with yourself and have fun writing down your struggles, surprises and accomplishments.

8. The most difficult situation I had to deal with since surgery is:
9. When dealing with my significant other I have had to help him/her adjust by:
10. Would I pick me as a best friend?
11. How do I feel about my body now?
12. When I look in the mirror and see myself as "fat," what I do to help me overcome that feeling is to:
13. My significant other tries to help me adjust by:
14. What kind of friend am I to myself?

## Appendix

### Non-steroidal anti inflammatory (NSAID)

Taking **NSAIDs and aspirin products** after weight loss surgery may increase your risk for marginal stomach ulcers and stomach perforation.

Please avoid the following medications **three weeks before your surgery**. After surgery, Roux-en-Y gastric bypass patients must avoid these medications below **forever**.

For sleeve gastrectomy patients NSAIDs may be used six weeks after surgery after consultation with bariatric team.

Actron	Magnesium Salicylate
Advil	Meclofenamate Sodium
Aleve	Mefenamic Acid
Amigesic	Meloxicam
Anaprox or AnaproxDS	Mobic
Ansaid	Motrin
Arthrotec	Nabumetone
Caldolor	Nalfon
Cataflam	Naprelan
Celebrex* or Celecoxib*	Naprosyn
Clinoril	Naroxen
Daypro	Naproxen sodium
Diclofenac potassium	Nuprin
Diclofenac sodium	Oxaprozin
Diflunisal	Piroxicam
Doan's Pills	Ponstel
Dolobid	Prevacid Napra PAC
EC-Naprosyn	Relafen
Etodolac	Salsalate
Feldene	Sulindac
Fenoprofen	Tolmetin
Flurbiprofen	Tolectin
Ibuprofen	Toradol
Indocin & Indocin SR	Treximet
Indomethacin	Voltaren or Voltarenxe
Ketoprofen	Zipsor
Ketorolac	
Lodine	

*\*For Roux-en-Y gastric bypass patients, Celebrex may be allowed under certain circumstances after consultation with bariatric team.*

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