



THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER

Having Bariatric Surgery: Book 2





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This book is for informational purposes only. Talk to your healthcare provider if you have any questions about your care.

If you would like a digital copy of “Having Bariatric Surgery: Book 2,” please visit go.osu.edu/pted3452.

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A card for you to show at restaurants to request half portions
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Preparing for Surgery: An Overview

How bariatric surgery works

Bariatric surgery, also known as metabolic surgery or weight loss surgery, is a medical procedure that helps you lose weight and improve your overall health. There are different types of surgeries, but in general, they all work to:

- Limit your food intake by making your stomach smaller
- Change the digestive process
- Affect the gut hormones that make you feel hungry and full

Overall metabolic benefits

“Metabolic” refers to those processes in the body that keep you alive and healthy. They include converting the food you eat into the energy that your body needs to function and how your body processes sugar (glucose).

The metabolic benefits of bariatric surgery may improve or resolve:

- Type 2 diabetes
- High blood pressure (hypertension)
- Lipid profile (cholesterol)
- Cardiovascular risk
- Liver disease — fatty liver (simple steatosis) or fatty liver that is also inflamed (metabolic dysfunction-associated steatohepatitis or MASH)
- Sleep apnea
- Obesity related cancer risk

How well and how quickly you see metabolic benefits may vary based on these factors:

- The type of bariatric surgery you have
- Your health conditions
- How well you follow guidelines after surgery
- How well you make healthy lifestyle changes

Also, regular follow ups are crucial for maintaining metabolic benefits long term.



You have been thoroughly evaluated and prepared for bariatric surgery.

You have made a commitment to:

- Lose or maintain the weight you have lost, including not binge eating before surgery
- Never use tobacco products
- Manage your blood sugar if you have diabetes
- Wear your APAP, BiPAP, or CPAP if you have sleep apnea
- Work with a behavioral health provider
- Exercise regularly
- Attend follow up appointments

General safety information

Bariatric surgery is as safe or safer than some of the most commonly performed surgeries. The risks of severe obesity outweigh the risk of having bariatric surgery for most patients. Bariatric surgery may reduce a patient's risk of early death by 30% to 50%. The risk of death associated with bariatric surgery is about 0.1%. The risk of major complications is about 4%.¹

Possible Bariatric Surgery Complications

- Infection
- Bleeding
- Nausea or vomiting
- Dehydration – where the body loses more fluid than you take in
- Diarrhea
- Constipation
- Gastritis – inflamed stomach lining
- Reflux – stomach contents come back up into the esophagus
- Heartburn – painful burning feeling in the middle of the chest
- Stomach ulcer – sore in the lining of the stomach
- Injury to the stomach, intestines, or other organs during surgery
- Blood clots in the body such as the legs (deep vein thrombosis or DVT) or in the lungs (pulmonary embolism or PE) – blood clots block the flow of blood in an artery
- Perforations – leaking from the incision where the stomach has been stapled together
- Stomach or intestinal (bowel) blockage
- Hernia – a weak spot in the abdominal wall or intestines where tissue may push through
- Gallstones – hard, pebble-like material that develops in the gallbladder
- Vitamin and mineral deficiencies
- Body image changes
- Weight regain

Talk to your provider about your risk for complications with bariatric surgery.

¹ Metabolic and bariatric surgery fact sheet: ASMBS. American Society for Metabolic and Bariatric Surgery. (2021, August 6). <https://asmbs.org/resources/metabolic-and-bariatric-surgery>

Preparing for surgery

Review the instructions in this book as soon as you get it, so you are well prepared for your surgery. You may need to stop or change certain medicines. You may also need to contact your health insurance provider.

Before surgery, you will be given:

- **A special soap or foam, called 4% chlorhexidine gluconate (CHG).** Wash your whole body from the neck down with CHG soap or foam the night before your surgery and then again the morning of your surgery. Please follow the instructions on pages 7 and 8 for more information.
- **2 bottles of a pre-surgery drink.** Please follow the instructions on page 9 for more information.
- **An incentive spirometer.** You will practice your incentive spirometer several times each day to help your lung function before surgery. You will also use the device after surgery to help your recovery. Please follow the instructions on pages 12 and 13 for more information.
- **Medicine cups.** After discharge from the hospital, you will need to drink 64, 1 ounce medicine cups of liquid each day. For instructions on how to practice at home, read number 4 (practice sipping liquids) on page 11.

Being well prepared can help you have a better recovery. Please follow the instructions in this book to keep your surgery on schedule. **Please call your surgeon's office if you have any questions.**

Getting Your Skin Ready for Surgery

Your surgery involves cutting through your skin. Because germs live on everyone's skin, there is a chance of getting an infection. To lessen your chance of getting an infection, you need to wash your skin with a special soap or foam, called 4% chlorhexidine gluconate (CHG), before your surgery.

Follow these instructions

1. **For 1 week before your surgery, do NOT shave near the site where you will have your surgery.** Shaving with a razor can irritate your skin and make it easier to develop an infection. A pre-surgery nurse may clip hair from your surgery site the day of surgery.
2. **Take 2 showers with CHG soap or foam.** Wash your whole body from the neck down with CHG soap or foam the night before your surgery and then again the morning of your surgery. **Use 4 ounces (½ cup) of CHG soap or 4 to 5 pumps of CHG foam each time you shower.** Follow the instructions on the next page for “How to shower with CHG soap.” Please call your surgeon's office if you have any questions.
3. After your shower, pat yourself dry with a clean towel. Do not use lotion.
4. Put on clean clothes.

If you are not able to shower

If you do not have a shower or you are not able to get into a shower, do a sponge bath each time to clean your body. Do not use CHG soap or foam on your hair unless you are told to do so by your healthcare provider.

How to take a sponge bath:

1. First, bathe with a clean washcloth, water, and regular soap. Rinse well with clean water.
2. Then, get a clean washcloth and wet it with clean water.
3. Apply some CHG soap or foam to the wet washcloth.
4. Use the washcloth to wash your whole body **from the neck down**. Keep adding more CHG and continue to **wash for 5 minutes**.
5. Rinse well with another clean washcloth and clean water.
6. Pat yourself dry with a clean towel. **Do not use lotion.**
7. Put on clean clothes.

If you have any questions about cleaning your skin, call your surgeon's office.

How to shower with CHG soap

1 Wash your hair as usual with your regular shampoo and then wash your body with regular soap.
Rinse well.

2 Wet a clean washcloth. Turn off the shower.

3 Apply some CHG soap to the wet washcloth.

4 Use the washcloth to wash your whole body **from the neck down**.
Keep adding more CHG and continue to wash for **5 minutes**.

5 Turn on the shower water and rinse your whole body well.

6 Pat yourself dry with a clean towel.

7 Put on clean clothes.

8 **Note:** On the morning of surgery when you finish showering, **do NOT** put on hair or skin care products, deodorant or make-up. **Do NOT** wear jewelry to the hospital or surgery center.

Pre-Surgery Drink Instructions

Use this guide to decrease hunger, thirst, and nausea before surgery and to improve your recovery after surgery.

Note: Place the 2 bottles of the pre-surgery drink that you were given at your appointment with the surgeon in the refrigerator if you would like to drink them cold.

If you have diabetes

The Night Before Surgery at Bedtime

Check your blood sugar:

- If your blood sugar is **less than 200 mg/dL**, drink 1 bottle of the pre-surgery drink.
- If your blood sugar is **200 mg/dL or higher**, drink 8 ounces of water or Gatorade Zero.

The Morning of Surgery – At Least 2 Hours Before Your Surgery Start Time

Check your blood sugar:

- If your blood sugar is **less than 120 mg/dL**, drink and finish the 2nd bottle of pre-surgery drink **at least 2 hours before your surgery start time**.
- If your blood sugar is **120 mg/dL or higher**, drink and finish 8 ounces of water or Gatorade Zero **at least 2 hours before your surgery start time**.

If you do NOT have diabetes

The Night Before Surgery at Bedtime

- Drink 1 bottle of the pre-surgery drink. If you do not have the pre-surgery drink, drink 8 ounces of water or Gatorade Zero.

The Morning of Surgery – At Least 2 Hours Before Your Surgery Start Time

- Drink and finish the 2nd bottle of pre-surgery drink **at least 2 hours before your surgery start time**. If you do not have the pre-surgery drink, drink and finish 8 ounces of water or Gatorade Zero.



5 Things to Do Before Surgery

1. Have these items at home:

Unsweetened applesauce

After surgery and until you are on the Step 3 diet, you will need to:

- › Split or crush any tablets that are larger than a dime. Mix crushed medicines with a small amount of unsweetened applesauce.
- › Open any capsules that are larger than a dime, and sprinkle over a small amount of unsweetened applesauce.

Chewable multivitamins with iron

- › After discharge from the hospital, you will begin taking this to prevent vitamin and mineral deficiencies.
- › Chew 1 vitamin in the morning and 1 vitamin in the evening with a meal. This meal should include some fat to help with absorption of the vitamin.
- › Avoid gummy, liquid, and patch multivitamins as they do not contain enough iron.
- › **Vitamins after surgery are required.** Take vitamins as directed to help prevent deficiencies.

Sugar free gelatin

- › Sugar free gelatin (such as Jell-O) counts toward your liquid goal.
- › You may buy pre-made sugar free gelatin, or you may mix your own. Mixing your own gelatin allows for you to add protein.
- › After surgery, patients often report that things taste sweeter. If you mix your own gelatin, you can dilute to your preferred sweetness.
- › Some patients prefer to sip on mixed gelatin before it sets.

Sugar free popsicles

- › Sugar free popsicles count toward your fluid goal.
- › You can buy pre-made popsicles or make your own.
- › If you make your own sugar free popsicles, you can add protein. You can also make popsicles using your protein drinks.

Broth

- › Bone, beef, and chicken broth are all good options for your first few weeks at home.
- › Campbell's chicken noodle soup is not broth. Eating small pieces of chicken and noodles after surgery will make you sick.

2. Schedule a follow up appointment with your primary care provider.

- Please schedule a follow up appointment with your primary care provider to be seen within 1 month of surgery or within 2 weeks of surgery if you have diabetes or high blood pressure.

3. If you need a prescription refilled, please request refills during clinic appointments.

- You may also request refills by calling 614-366-6675 or by sending a MyChart message.
- The clinic does not respond to refill requests sent directly from pharmacies.
- Please allow plenty of time for refill requests.

4. Practice sipping liquids.

- Drinking enough liquids (hydration) is important after bariatric surgery.
- You will be given 1 ounce medicine cups. After discharge from the hospital, you will need to drink 64 ounces of liquid each day.
- How to practice at home:
 - Fill a 1 ounce medicine cup with liquid.
 - Set the timer on your phone for 3 minutes.
 - Take a sip of the liquid in the medicine cup.
 - Start the timer on your phone.
 - When the timer goes off, take a sip of liquid.
 - Restart the timer for 3 minutes.
 - When the timer goes off, take another sip of liquid.
 - Repeat this process until you have emptied 1 medicine cup. This should take about 10 minutes (where you take a sip of liquid every 3 minutes).
 - Once you have emptied a medicine cup, repeat the process above to finish a 1 ounce medicine cup every 10 minutes.
- How much liquid to drink daily:
 - While you are in the hospital, try to drink 48 ounces of liquid daily.
 - After discharge from the hospital, drink at least 64 ounces of liquid each day.
 - For the first week after surgery, take a sip of liquid (protein shake or water) every 3 minutes to finish 1 ounce every 10 minutes (finishing 6 ounces in 1 hour).
 - Beginning week 2, take sips of liquid (protein shake or water) to finish 1 ounce every 3 to 5 minutes (finishing 6 ounces in 20 to 30 minutes).
 - If you are struggling to meet your liquid goals after surgery, please read "Dehydration After Bariatric Surgery" on pages 41 and 42 and contact the clinic.

5. Practice using your incentive spirometer.

- This will help to improve your lung function. Exercising your lungs will help you breathe better, reduce the need for oxygen, and reduce your risk for pneumonia after surgery.
- You do not need to bring your incentive spirometer with you to the hospital. You will receive a new incentive spirometer in the hospital after surgery.

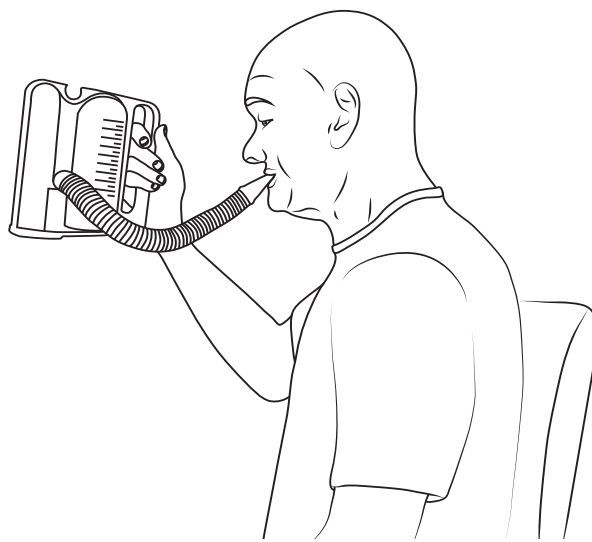
How to Use an Incentive Spirometer

Use your incentive spirometer, also called a breathing exerciser, to help you take deep breaths to open the air sacs in your lungs. This helps to reduce your chance of developing breathing problems like pneumonia.

Use the incentive spirometer as directed to improve your lung function before surgery and help your recovery after surgery.

Steps for use

1. If possible, sit up straight. It may help to sit on the edge of a chair or your bed.
2. Hold the incentive spirometer upright.
3. Breathe out, then put the mouthpiece inside your mouth. Close your lips tightly around the mouthpiece and take in a slow deep breath through your mouth.
4. As you take a deep breath, the piston in the incentive spirometer will rise. Breathe in slowly to allow the air sacs in your lungs time to open. When inhaling, maintain the green flow chip in line with the smiley face flow range. This will help you know if you breathe in too fast.
5. After you breathe in as deeply as you can, hold your breath for 3 to 5 seconds, and then exhale normally. Set the goal indicator tab at the level that you reached.
6. Take out the mouthpiece and breathe out slowly. Relax and breathe normally for a few seconds until the piston returns to the bottom of the chamber.
7. Repeat these steps for a total of 10 times every hour or as directed. If you start to feel light-headed or dizzy, slow down your breathing and take more time between deep breaths.
8. After you do the 10 deep breathing exercises, it is very important to take a deep breath and cough to clear the mucus from your lungs. Because you had surgery on your abdomen, support your incision by holding a pillow or folded blanket firmly against your incision. This will provide support and decrease the pain you feel when you cough.



Helpful hints

- Take medicine to control your pain. It is harder to take a deep breath if you are having pain.
- Keep the incentive spirometer within reach, so you remember to use it as directed.
- Use your incentive spirometer when you go home to help keep your lungs clear while you recover.
- If you have questions, please refer to the package insert that came with the incentive spirometer.

Preadmission Testing and Medicine Changes Before Surgery

Pre-Procedure Evaluation and Assessment

Pre-Procedure Evaluation and Assessment, also called preadmission testing, is the final clearance before surgery. You may be scheduled for this appointment when you receive your surgery date. There are 2 types of appointments:

- **The OSU Preoperative Assessment Clinic, also called OPAC**
 - This is an in person appointment that takes about 2 hours.
- **Telehealth Periop Screening, also called Comprehensive Peri-Anesthesia Center (ComPAC)**
 - This is a phone or video call.

Your surgeon will decide what appointment type is best for you.

At this appointment, you may have lab work, discuss cleaning your skin with a special soap before surgery to prevent infection, and review your medicines. Staff will review all over the counter and prescription medicines, vitamins, minerals, and herbal products that you take so that they can let you know what you need to stop taking before surgery.

- **If you are having an in person appointment with OPAC**, please bring all your medicines in their original containers with you to this appointment.
- **If you are having a phone or video call with ComPAC**, please have all your medicines in their original containers nearby, so you can share medicine information with staff.

More information on preadmission testing will be in your After Visit Summary (AVS) that you receive today. Please make sure to read all this information.

Medicine changes

If you take a blood thinner (anticoagulant or antiplatelet) medicine:

Ask the provider who ordered the medicine for instructions. Your provider may tell you to stop taking it a certain number of days before surgery, or your provider may tell you to keep taking it. Make sure that you understand exactly what your provider wants you to do.

- **Ask the provider who ordered your blood thinner medicine** if it is safe for you to stop taking it before surgery.
- **If you have had a stent**, especially a stent in your heart or brain, **DO NOT STOP taking your blood thinner medicine** until you are instructed by the provider who placed the stent.
- **If your provider has told you NOT to stop taking your blood thinner medicine before surgery**, please call 614-366-6675 and ask to talk to a nurse.
- **If your surgery date gets changed and you had stopped or changed your blood thinner medicine**, call your provider. You may need to restart the medicine while you wait for your surgery to be rescheduled.

- **Anticoagulant and antiplatelet medicines:** Below is a list of common blood thinner/stent medicines:
 - apixaban (Eliquis)
 - clopidogrel (Plavix)
 - dabigatran (Pradaxa)
 - edoxaban (Savaysa)
 - enoxaparin (Lovenox)
 - fondaparinux (Arixtra)
 - heparin
 - rivaroxaban (Xarelto)
 - ticagrelor (Brilinta)
 - vorapaxar (Zontivity)
 - warfarin (Coumadin, Jantoven)

If you take NSAIDs, such as ibuprofen (Advil, Motrin, and Nuprin), naproxen (Aleve), or celecoxib (Celebrex):

- **Stop taking them 5 days before surgery.**
- **After bariatric surgery, you should not take NSAIDs or steroids.** If you are prescribed these medicines, please contact our clinic.

If you take birth control medicines that contain estrogen:

- **Stop taking them 30 days before surgery.** Use another method of birth control before surgery and for the first month after surgery. You can restart medicines containing estrogen 1 month after surgery.

If you take estrogen for gender affirming therapy:

- The provider who ordered the medicines will need to discuss with your bariatric surgery team how best to manage them before and after surgery. **Follow your provider's instructions.**

If you take any of these medicines for diabetes, weight loss, or another reason:

- If you take insulin, ask the provider who ordered the insulin how to adjust before your surgery.
- Do not take oral (by mouth) diabetes medicines on the day of surgery.
- **If you take any of these oral medicines listed below, stop taking it for the following number of days before surgery:**

Medicine	Number of days to stop taking before surgery
▸ ertugliflozin (Steglatro)	4 days
▸ bexagliflozin (Brenzavvy)	3 days
▸ canagliflozin (Invokana)	
▸ dapagliflozin (Farxiga)	
▸ empagliflozin (Jardiance)	
▸ sotagliflozin (Inpefa)	
▸ semaglutide (Rybelsus)	1 day

- **If you use one of these injection medicines**, stop taking it before surgery as listed below:

Medicine	When to stop taking before surgery
<ul style="list-style-type: none"> ▸ dulaglutide (Trulicity) ▸ exenatide (Bydureon BCise, Byetta) ▸ liraglutide (Saxenda, Victoza) ▸ semaglutide (Ozempic, Wegovy) ▸ tirzepatide (Mounjaro, Zepbound) 	<ul style="list-style-type: none"> ▸ If you use the injection daily, do not use on the day of surgery ▸ If you use the injection weekly, stop taking 1 week before surgery ▸ If you use the injection weekly for weight loss only, stop taking for 2 weeks before surgery

- **If you take phentermine (Adipex), phentermine/topiramate (Qsymia), or naltrexone/bupropion (Contrave)**, ask the provider who ordered the medicine how to taper off the medicine before surgery. These medicines should be stopped slowly by taking smaller doses over time as directed by your provider.

Please review your After Visit Summary from OPAC or ComPAC for more instructions on medicine changes before surgery.

Take all your other medicines with a sip of water the morning of surgery unless you are instructed to make a change before surgery.

30 Days Before Surgery

- **Exercise 30 minutes each day most days of the week.** The stronger you are before your surgery, the more quickly you will recover. Walking, riding a bike, and strength training with light weights are all good options. If you are not able to do these activities, start low impact seated exercises to build your strength. Talk to your healthcare team for suggestions. You may find doing the post surgery exercises on pages 33 to 37 of this book helpful before surgery.
- **Practice using your incentive spirometer several times each day.** This will help to improve your lung function. Exercising your lungs will help you breathe better, reduce the need for oxygen, and reduce your risk for pneumonia after surgery. Read “How to Use an Incentive Spirometer” on pages 12 and 13 in this book for more information.
- **If you take any medicines that contain estrogen, you will need to stop them 30 days before surgery.** Use another method of birth control before surgery and for the first month after surgery. You can restart medicines containing estrogen 1 month after surgery. You will have a pregnancy test before surgery.
- **If you have sleep apnea and use an APAP, BiPAP, or CPAP machine, be sure you are using your device every time you sleep.** It has been shown to help reduce problems after surgery.
- **If you have diabetes, keep your blood glucose levels as near normal as possible before surgery.** This can improve your ability to heal, lower your risk of infection after surgery, and reduce your risk from anesthesia.
- **Avoid alcohol, smoking, and the use of other tobacco products before surgery. You must be free from nicotine for 90 days before surgery and be committed to remaining nicotine-free for life** due to the risk of nicotine causing ulcers and other serious problems.

2 Weeks Before Surgery

- **You may be told to follow a liver shrink diet for 1 to 2 weeks before surgery.** Your dietitian will give you a liver shrink diet that meets your needs and answer any questions. A liver that is too large or fatty is hard to move during surgery. The liver shrink diet will reduce the size of your liver. This will allow your surgeon to better access your stomach and may decrease the risk of complications and the need to switch from a laparoscopic to an open surgery.
- **Call your health insurance provider before surgery.** It is a good idea to call your insurance company to confirm coverage before you have surgery or other procedures.
 - If your insurance will not pay the full amount, you will be asked to pay a deposit before surgery.
 - **You will be expected to pay your copay, coinsurance, or deductible amount when you arrive for surgery.**
- **If you get sick with a cold, sore throat, cough, fever, or are diagnosed with COVID-19 in the 2 weeks before surgery, please call 614-366-6675.** Your surgery may need to be rescheduled.
- **If you need paperwork completed for medical leave or disability,** please bring it with you to your appointment. You may also fax your paperwork to 614-366-8166, email it to obesitysurgery@osumc.edu, or send it through MyChart.
- **Preregistration** – The hospital will call you to preregister you for surgery. If you have not been called within 2 days of your surgery date, please call Preregistration at 614-293-8200 or 866-312-7846. Our staff will help you understand what fees you may be expected to pay for your surgery, the doctors, and the hospital charges.
 - If you have MyChart, you may log in to complete your preregistration questionnaire.
- **Arrange to have an adult take you home after surgery or your hospital stay.** For your safety, you will not be permitted to leave the hospital alone.

The Day Before Surgery

- **Surgery time** – You will get a call 24 to 48 hours before your surgery to confirm the time of surgery. The person calling will tell you when you should arrive and answer any questions you may have. If you have not received a call within 24 hours of your surgery date, you may call 614-293-8795.
- **Pack a small bag for the hospital.**
 - Bring comfortable clothing (such as a robe and slippers) and toiletries.
 - Please leave any jewelry, piercings, and valuables at home.
 - Please review the list of “things to bring with you” on page 20, so you have everything together before you need to go to the hospital.
- **Clean your skin with CHG soap or foam.** Wash your whole body from the neck down with CHG soap or foam the night before your surgery. Read pages 7 and 8 for more instructions.
- **Pre-surgery drink** – Drink the 1st bottle the night before your surgery at bedtime. If you have diabetes or for more instructions, please read page 9.

The Morning of Surgery

At Home

- **Plan to arrive at registration 2 hours before your surgery.**
- **Finish preparing for surgery:**
 - Remove any nail polish, artificial nails, piercings, and all makeup before surgery.
 - **Wash your whole body from the neck down with CHG soap or foam** again the morning of your surgery. Do not use lotion. Put on clean clothes. Do not use any hair or skin care products, deodorant, or makeup. Read pages 7 and 8 for more instructions.
 - **Drink and finish the 2nd bottle of pre-surgery drink** the morning of your surgery at least 2 hours before your surgery start time. If you have diabetes or for more instructions, please read page 9.
 - Take any medicines that you were told to take the morning of surgery with your pre-surgery drink or small sips of water.
- **Things to bring with you:**
 - Your photo ID and health insurance card(s).
 - Copay, coinsurance, or deductible for the amount you are responsible for.
 - Phone numbers for your providers and pharmacy you use.
 - List of preferred home health agencies or rehabilitation centers, if needed.
 - **Please bring all of your medicines in their original containers along with a current medicine list.** This helps your provider determine which medicines need to be split into smaller pieces or crushed. Remember to include all over the counter and prescription medicines, vitamins, minerals, and herbal products that you take. **Please DO NOT bring pain medicines with you to the hospital.** If you take pain medicines, please make sure to include them on your medicine list and note how often (frequency) and how much (dose) you take.
 - Copies of your Living Will and Healthcare Power of Attorney forms (if you have them).
 - **Your cell phone and charger.** Your phone will be used as a timer to remind you to sip on liquids after surgery.
 - **Your eye glasses and/or hearing aids.** Please label them with your name to keep them with your other belongings.
 - Your small bag of clothing and toiletries for the hospital. The hospital will also provide toiletries.
 - **A couple of dietitian approved shakes,** in case you do not like what the hospital serves.
 - **If you have sleep apnea and use an APAP, BiPAP, or CPAP machine,** please bring it with you to the hospital. You will be wearing it when you come out of surgery.
 - **This book: “Having Bariatric Surgery: Book 2.”**

Please pack lightly as your support person will have to carry your belongings until you arrive in your room.

What to Expect After You Arrive and Register

- You will be brought to pre-operative holding to get you ready for surgery. Your support person may stay with you until you go to surgery.
 - You will change into a hospital gown.
 - An intravenous (IV) will be started to give you medicines to prevent pain and nausea after surgery, antibiotics to prevent infection, and medicine to prevent blood clots.
- You will meet with the anesthesiologist and surgeon.
- Your nurse will answer any questions that you have and tell your support person where they may wait while you are in surgery.
- In the waiting room, your support person can check the monitor for updates to your surgery's status. They will know when your surgery is completed and when you have been moved to recovery. The surgeon will call your support person to let them know how surgery went.
- The surgery will take about 1 to 3 hours.
- Right after surgery you will be brought to the recovery room or post-anesthesia care unit (PACU) to recover from the anesthetic for about 2 hours. Your support person will not be able to visit you in the PACU. They will meet you in your private hospital room on the bariatric floor after you leave the PACU.

Personal Identification Number (PIN)

You will receive a PIN to share with friends and family during your hospital stay. People who call the hospital operator at 614-293-8000 to check on your status will need this PIN to receive information. No information is shared without this PIN.

Your PIN is _____. This is the last 4 digits of your medical record number (MRN).

Your Care in the Hospital

We are pleased that you have chosen The Ohio State University Wexner Medical Center for your surgery. Please share this information with your support person and family members who will provide support during your hospital stay or when recovering at home. This is what you can expect throughout your stay.

Day of surgery

Our team will check on you often:

- Take your vital signs.
- Check incisions.
- Ask you about pain and nausea.

We will work with you to control your pain and nausea. Tell us about your pain, positioning, and nausea, so we can help you to rest comfortably.

After surgery, you may have ice chips to reduce dry mouth or a sore throat. **You may start the Step 1 diet (liquid protein) today.**

We will also get you up into a chair or do some walking if you are able. While you are in bed or in the chair, compression devices will be on your legs. This is to prevent blood clots from forming.

Day after surgery

To help you heal and get ready for discharge (leaving the hospital), and prevent problems after surgery, we will focus on:

- Controlling your pain and nausea.
- Deep breathing exercises. **Every hour you are awake use the incentive spirometer 10 times.**
- Starting your protein shakes and water as soon as you are able. Your body needs liquids and nutrition to heal. The goal is to get water and protein into your body to help you heal. **Take a sip of liquid (protein shake or water) every 3 minutes to finish 1 ounce in 10 minutes.**
- Getting you out of bed and walking at least 5 times today. We will help you to walk safely until you feel comfortable on your own or with your loved one.
- Wearing your compression devices when in bed.
- Medicines as part of your care.

We will check your progress and ability to meet these goals:

- Pain and nausea are controlled by oral medicines (taken by mouth).
- You are free of oxygen support.
- You can drink enough liquids to be hydrated.
- You are able to walk the halls safely by yourself, without staff support.
- You are able to use the bathroom.
- Your team is comfortable that you are progressing safely.

Remember:

Take a sip of liquid (protein shake or water) every 3 minutes to finish 1 ounce every 10 minutes.

If you are progressing well, you will be able to go home the day after surgery in the late afternoon or evening.

What is normal after surgery?

These are some of the common experiences after this type of surgery. You may:

- Need some oxygen after surgery.
- Wear your CPAP from home when you sleep to help with your oxygen levels.
- Have pain on the right side of your abdomen. This pain is related to the largest incision.
- Have pain in your left shoulder. This is from carbon dioxide used during surgery.
- Have mild nausea from surgery or anesthesia.
- Have fluid from the incision. The fluid color may be yellow or yellow-red.
- Feel full after a very small amount of food or liquid.
- Have the need to pass gas.

If you have a bad back, let us know if you would be more comfortable resting in a chair.

Things You Can Do in the Hospital to Help Your Recovery

- Get up and walk around several times a day.
- Stay on track with your liquid intake. While you are in the hospital, try to drink 48 ounces of liquid daily by sipping liquids often.
- Take pain medicines as prescribed to decrease the need for narcotics, such as oxycodone, morphine, and dilaudid. Narcotics can increase your hospital stay by:
 - Affecting how you breathe, causing lower oxygen levels.
 - Making you sleepy, which can interfere with walking and drinking goals, contribute to nausea, and lead to constipation.

Your Care at Home

This is a general plan of care. You will receive specific instructions for your needs.

Medicines

Prescriptions will be given at discharge for:

- Pain control, such as medicines to reduce inflammation or narcotic pain medicine, if needed
- Nausea control medicine
- Long-acting anti-heartburn or reflux medicine
- Powdered stool softener to reduce strain with bowel movements

Multivitamin

- Take 2 chewable multivitamins with iron each day, as directed. This will help to prevent vitamin and mineral deficiencies. Take 1 vitamin in the morning, and 1 vitamin in the evening with a meal in which you have included some fat to help absorption.

Birth Control

- Before surgery, you will be given a dose of a medicine called aprepitant (Aponvie) in your intravenous (IV) to help control nausea and vomiting. For the next 28 days, birth control pills and other hormone-based birth control methods may not work as well to prevent pregnancy. **Use another method of birth control, like a condom, for the first month after surgery.**

Medicine Safety

- Please schedule a follow up appointment with your primary care provider to be seen within 1 month of surgery or within 2 weeks of surgery if you have diabetes or high blood pressure.
- Avoid non-essential medicines during the early stage of recovery. Talk with your provider about the medicines you take.
- **After bariatric surgery, you should not take NSAIDs**, such as aspirin, ibuprofen (Advil, Motrin), and naproxen (Aleve), or steroids, as these can increase your risk of bleeding after surgery. If you are prescribed these medicines, please contact our clinic.

Contact information

Ohio State Bariatric Surgery in Martha Morehouse Outpatient Care

2050 Kenny Road
Concourse Suite 1222
Columbus, OH 43221

Phone: 614-366-6675

**Monday through Friday
8 a.m. to 4 p.m.**

If you have any urgent questions or concerns outside of normal business hours, please call the hospital operator at 614-293-8000. They will connect you with the general surgery resident on call.

You may also send a MyChart message to your healthcare provider for questions that are not urgent, which are responded to within 3 business days.

If you are unable to reach your provider and it is a medical emergency, dial 911 or go to the nearest emergency department for evaluation.

- Do not take steroids. If you are prescribed this medicine, please contact our clinic.
- You may take acetaminophen (Tylenol) for aches and pains.
- Medicines may not absorb as well after surgery. Talk to your provider if your medicines are not working as well as they did before surgery. **It is okay to take extended release medicines after bariatric surgery** as long as they work for you.
- If you are not able to tolerate some medicines, tell your provider.
- **Your medicines need to be split/crushed (tablets) or opened (capsules) if they are larger than a dime until you are on the Step 3 diet.** Ask your pharmacist or a member of the bariatric surgery team if any medicines you take should not be split, crushed, or opened.

Diet and nutrition

- Read “Your Diet: Week 1 at Home” on page 28 and “Your Diet: Week 2 at Home (Step 2 Diet)” on pages 29 to 32 for more information.
- You will stay on a **thinned, pureed Step 2 diet** at least until your follow up visit, 2 weeks after surgery. **Your dietitian will tell you when it is safe to start the Step 3 diet.**

Activity

- **No driving and no work** until you have your follow up appointment and are cleared by your provider.
- **No lifting, pushing, or pulling** more than 10 pounds for 2 weeks after surgery, and then, no lifting, pushing, or pulling more than 25 pounds until you are 6 weeks from the date of your surgery.
- **You may resume sexual intercourse when you are comfortable.**
 - Avoid straining your abdominal muscles as described in the bullet point above. Strenuous activity could cause a hernia.
 - Avoid becoming pregnant for at least 12 months after surgery. Talk with your primary care provider or gynecologist about the best birth control method for you.
 - If you were using a type of birth control with estrogen and it was placed on hold before surgery, please use an alternate form of birth control until you have resumed it and it has become effective.
- **Walk at least 5 times each day.** Increase activity gradually until you can walk 20 to 30 minutes a day.
 - Your healthcare team will talk to you about your fitness goals, which will include slowly adding in aerobic exercise, strength training, and stretching over the next 6 weeks.
 - Follow the “Post Surgery Exercise Plan” on pages 33 to 37 to safely increase your activity and exercise the first 6 weeks after surgery.
- **You may use the stairs.**
- **Do not use tobacco products** and avoid being around smokers, as it can slow healing.

Wound care

- Keep your wound or incision site clean and dry.
- You may have different types of dressings covering your incision(s), depending on your surgery and surgeon:
 - **If your incision was closed with skin glue, called Dermabond/Durabond**, this will remain in place for 10 to 14 days. It will then naturally fall off your skin. You may take a shower 24 hours after surgery. Carefully wash and do not scrub the incision site with a mild, non-scented soap. Pat dry with a soft towel. Do not pick or peel the skin glue off.
 - **If you have steri-strips covering your incision**, leave them on for about 14 days until they start to peel, and then you can take them off. You can shower after 48 hours, but do not let the water fall directly on the steri-strips.
- Do not soak or submerge your incision(s) in a bath tub, hot tub, or swimming pool until your provider says it is OK to do so or the incision(s) have completely healed, usually about 2 to 4 weeks.
- Do not use creams, powders, salves, or balms on your incision(s).

When to contact your healthcare provider

Call 614-366-6675 if you have any of these signs or symptoms:

Signs of Wound Infection	<ul style="list-style-type: none">• A fever over 101 degrees F or 38 degrees C.• Wound becomes extremely swollen, shows red streaks, warm to the touch, and/or drainage from the incision site or foul-smelling drainage.• Wound edges separate or open up.
Bleeding or Bruising	<ul style="list-style-type: none">• If you have bleeding, apply pressure to the site and hold pressure firmly for 5 minutes. If the bleeding continues, apply pressure again and call 911. If bleeding stops, call your healthcare provider to report it.• Call your healthcare provider if you have increased bleeding from your site, increased bruising, or a lump forms or gets larger under your skin at the site.
Unrelieved Abdominal Pain	<ul style="list-style-type: none">• Call your healthcare provider if your pain gets worse or is not eased 1 hour after taking your pain medicine, or if it is severe and uncontrolled.
Nausea and Vomiting	<ul style="list-style-type: none">• Call your healthcare provider as early as possible if you have nausea and vomiting that is keeping you from taking your medicine or keeping you from drinking liquids and taking in protein.

<p>Diarrhea or Other Symptoms That May Cause Dehydration</p>	<ul style="list-style-type: none"> • Call your healthcare provider as early as possible if you have diarrhea or other symptoms that may cause dehydration. You may need to come to the clinic for intravenous (IV) fluids.
<p>Gastrointestinal Bleeding Symptoms</p>	<ul style="list-style-type: none"> • Black, tarry bowel movements. This can be normal after surgery on the stomach, but should resolve in 1 to 2 days. • Call 911 if you suddenly have signs of blood loss, such as: <ul style="list-style-type: none"> ▸ Vomiting blood ▸ Fast heart rate ▸ Feeling faint, sweaty, or blacking out ▸ Passing bright red blood from your rectum
<p>Blood Clot Symptoms</p>	<ul style="list-style-type: none"> • Tender, swollen, or reddened areas in your calf muscles or thighs. • Numbness or tingling in your lower leg or calf, or at the top of your leg or groin. • Skin on your leg looks pale or blue or feels cold to the touch. • Chest pain or have trouble breathing, light-headedness, or fast heart rate.
<p>Sudden Onset of Symptoms</p>	<ul style="list-style-type: none"> • Call 911 if you suddenly have: <ul style="list-style-type: none"> ▸ Leg weakness and spasm ▸ Loss of bladder or bowel function ▸ Seizure ▸ Confusion, severe headache, dizziness or feeling unsteady, problems talking, difficulty swallowing, and/or numbness or muscle weakness as these can be signs of a stroke

Your Diet: Week 1 at Home

- **Each day:**
 - Drink at least 64 ounces of liquid.
 - Get at least 60 grams of protein.

- **Choose liquids** from this list:

- Protein shakes
- Chicken or beef broth
- Bone broth
- Water
- Sugar free drinks

Avoid drinks that are carbonated or contain caffeine.

- **Choose thinned, pureed food options** to get ready for the Step 2 diet. You can choose 1 new food a day from this list. Thin these foods with water, fat free skim milk, or low fat 1% milk to applesauce consistency (can be poured through a funnel):

- Unsweetened applesauce
- Thinned low sugar yogurt
- Thinned sugar free pudding
- Thinned sugar free gelatin

Eat ¼ cup over 30 minutes.

- **Choose liquids and foods low in sugar.** Sugar intake should be **10 grams (g) or less per meal.** Liquids and foods that add up to more than 10 grams of sugar per meal may cause dumping syndrome or nausea.

Nutrition Facts	
4 servings per container	
Serving size	1 1/2 cup (208g)
Amount per serving	
Calories	240
	% Daily Value*
Total Fat 4g	5%
Saturated Fat 1.5g	8%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 430mg	19%
Total Carbohydrate 22g	17%
Dietary Fiber 7g	25%
Total Sugars 4g	
Includes 2g Added Sugars	4%
Protein 11g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 6mg	35%
Potassium 240mg	6%
<small>*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.</small>	

Your Diet: Week 2 at Home

(Step 2 Diet)

The Step 2 diet consists of full liquids and blended or pureed solids.

Remember: “If you have to chew, it is not Step 2.”

The portions are very small to help prevent vomiting. These small, high protein meals will help your new stomach pouch heal.

This diet provides about 600 to 800 calories and 60 grams of protein per day. **It starts 1 week after being home from the hospital.** Do your best as you plan your meals, and talk to our staff if you have questions or concerns.

Warning: This diet does not have enough calories, protein, vitamins, minerals, and fiber. Only use this diet while under the supervision of your healthcare provider for up to 4 weeks after bariatric surgery.

General guidelines

- **Your meals/snacks will be only liquid or pureed.** Pureed food should be the consistency of applesauce and be thin enough to flow through a funnel.
- **Eat at least 6 small meals each day.** Portions (each meal) should be around $\frac{1}{4}$ cup and take about 15 to 20 minutes to eat.
- **Use baby utensils and take small, dime-sized bites.** Wait 2 to 3 minutes in between bites.
- **Every meal/snack should contain a protein source.** This can be from the milk or meat group. Vegetarian options can be found in the meat group as well. **Your goal is to get 60 to 80 grams of protein per day.**
- **Sip at least 64 ounces of sugar free, caffeine free liquids each day. You may drink faster now, about 1 ounce every 3 to 5 minutes (or 6 ounces in 20 to 30 minutes).** Sugar free liquids include Crystal Light, V8 Diet Splash, tomato juice, V8 low sodium vegetable juice, sugar free Kool-Aid, sugar free decaf iced tea, flavored waters, sugar free popsicles, sugar free gelatin, and broth. **Avoid drinks with alcohol, caffeine, and carbonation.**
- **Limit sugar and sugar alcohols to less than 10 grams each per meal.**
- **Do not drink 10 minutes before meals and wait 30 minutes after meals to drink.** Avoid drinking during meals as combining liquids and food may lead to nausea, vomiting, abdominal pain, diarrhea, and dumping syndrome.
- **Take 2 chewable multivitamins with iron each day (no gummies). Take 1 in the morning and 1 in the evening.** This will help to prevent vitamin and mineral deficiencies.
- **Record everything that you eat and drink (time, what it is, and how much) for at least 3 days.** Bring this with you to your next appointment. The dietitian can help calculate how many calories and how much protein you are eating.
- **Restaurant foods are not recommended for the first 2 months after surgery.**

Tips on how to puree foods

- Cut food into small pieces.
- Place food into blender or food processor.
- Add liquid, such as broth, cream soup, or low fat sauces and dressings.
- Blend or puree until smooth.
- Strain foods that do not blend into a completely smooth consistency.
- Season foods to taste. You may want to avoid spicy foods, such as Tabasco sauce, white pepper, red pepper, etc.

Dumping syndrome

You may have diarrhea, abdominal cramping, cold sweats, and light-headedness after eating. **Drinking during meals, eating too much sugar at one time, eating too much food, or eating too fast can cause these symptoms.** This is called dumping syndrome. Use a sugar substitute and foods made with a sugar substitute instead of sweetened foods. Use sugar free Kool-Aid, Crystal Light, sugar free lemonade, and products like these.

Be sure to sip your drinks slowly.

Planning meals

Use foods from these groups to plan your meals.

Milk Group

Choose up to 4 servings from this food group each day. Check sugar content and look for calcium-fortified. These foods are good sources of protein and calcium:

- ½ cup fat free skim or 1% low fat milk
- ½ cup Lactaid milk or other unsweetened soy milk
- ¼ cup light yogurt (remove any pieces of fruit in yogurt)
- ¼ cup pureed cottage cheese
- ½ bottle (6 to 8 fluid ounces) of protein shake or protein water
- ¼ cup sugar free pudding (boxed) made with fat free skim milk
- ¼ cup strained cream soup made with fat free skim milk

Meat Group

Choose up to 4 servings from this food group each day. These foods are good sources of protein, energy, B vitamins, and iron:

- ½ small jar strained baby food meat (plain)
- 1 tablespoon creamy peanut butter
- 1 egg (soft scrambled) or egg salad (smashed/blended)
- ¼ cup water-packed tuna or chicken, pureed
- ¼ cup (1 ounce) cooked pureed meat, such as beef, fish, turkey, chicken, pork, and veal

- ¼ cup (1 ounce) pureed soft tofu
- ¼ cup pureed chili or bean soup

Note: A small amount of fat free gravy, cream soup, or broth may be added for flavor. Mixing pureed meat with mashed potatoes or pureed soups improves the taste. Seasoning may be added.

Vegetable Group

Choose up to 1 or 2 servings from this food group each day. These foods are good sources of vitamins, minerals, and fiber and are low in calories:

- ½ cup vegetable juice, such as tomato, carrot, and V8 juice
- ½ small jar of strained baby food
- ¼ cup pureed vegetables, such as:
 - Asparagus tips
 - Beets
 - Carrots
 - Green beans
 - Greens
 - Spinach
 - Tomato sauce
 - Vegetable soup
 - Zucchini

Fruit Group

Choose up to 1 or 2 servings from this food group each day. Avoid strained fruit desserts and junior or toddler foods. These foods are good sources of vitamins, minerals, and fiber:

- ¼ cup unsweetened fruit, pureed
- ½ cup diet juice with 5 calories or less per serving
- ¼ cup canned fruit (lite, no sugar added, or 100% juice), drained and pureed
- ¼ cup unsweetened applesauce
- ½ small jar strained baby food

Note: **Avoid fruit juices as they contain sugar.** Both natural sugar and added sugar can cause dumping syndrome.

Starch Group

Choose up to 1 or 2 servings from this food group each day. These foods are good sources of energy, B vitamins, and iron (if fortified):

- ¼ cup pureed soup, any kind
- ¼ cup cooked cereal, such as Cream of Wheat, Cream of Rice, oatmeal, and grits
- ¼ cup pureed, starchy vegetable, such as mashed winter squash, mashed potatoes, and mashed sweet potatoes
- ¼ cup canned fat free or vegetarian refried beans
- ¼ cup pureed peas or lentils

Fat Group

Choose up to 2 servings from this food group each day.

- 1 teaspoon butter or oil
- 2 teaspoons diet margarine
- 1 tablespoon low fat mayonnaise, Miracle Whip, or salad dressing
- 1 tablespoon avocado, blended
- 1 tablespoon low fat or fat free gravy

Sample menu

Meal	Food item	Protein in grams (g)
Breakfast	Protein shake or protein water (11 fluid ounces)	15 to 30
Mid-morning	¼ cup unsweetened applesauce	0 to 1
Lunch	¼ strained cream of chicken soup and canned chicken, pureed	5 to 7
Mid-afternoon	¼ cup light or Greek yogurt	6 to 8
Dinner	¼ cup pureed chili or bean soup	3 to 7
Evening	Protein shake or protein water (11 fluid ounces)	15 to 30

Note:

- Stop eating when you feel full. Pay attention to your stomach.
- Protein shakes and supplements should be sipped over 20 to 30 minutes.

Recipes

Look for liquid or pureed recipes online, such as from:

- [pinterest.com](https://www.pinterest.com)
- bariatricfusion.com/blogs/blog/the-best-gastric-sleeve-pureed-diet-recipes-1
- gastricsleeve.com/post-op-stage-3-pureed-foods
- bariatricbits.com/bariatricnutrition/pureed

Protein waters

Some people dislike the taste of thicker protein shakes after surgery. Try these protein waters to help increase your protein intake:

- Protein2o (20 grams)
- Premier Protein Clear (20 grams)
- Syntrax Nectar (23 grams per scoop)
- LiquaCel (16 grams per ounce)
- Isopure Zero Carb 100% Whey Protein Isolate Drink (40 grams)
- BiPro Protein Water (20 grams)

Post Surgery Exercise Plan

After surgery, please share any concerns that you have related to exercise limits and recommendations with your healthcare team.

0 to 2 weeks after surgery

Remember: No lifting, pushing, or pulling more than 10 pounds for 2 weeks after surgery.

Aerobic Exercise

- **Walk at least 5 times each day.** Increase activity gradually until you can **walk 20 to 30 minutes a day.** Focus on the frequency (how often you are walking) and slowly build up the duration (length of time) you are walking. You can focus on increasing the intensity later.
- Set a reminder on your phone or other digital device to exercise.
- If tolerated, use the stairs as much as possible.
- **Slowly work toward a total of 150 minutes of aerobic exercise per week.**

Strength Training

In addition to 150 minutes of aerobic exercise, do the below exercises according to your pre-surgery fitness level. These exercises will increase your muscular endurance, reducing fatigue from daily activities and exercise.

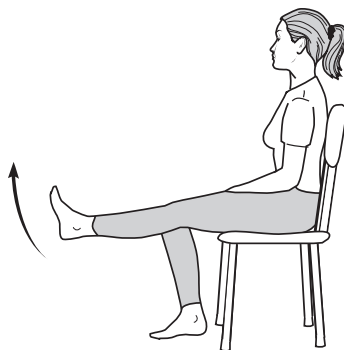
- **If you were not exercising before surgery, do 3 sets of 5 repetitions, 3 times per day for each exercise.**
- **If you were exercising moderately before surgery, do 3 sets of 10 repetitions, 3 times per day for each exercise.**

Exercises to do:

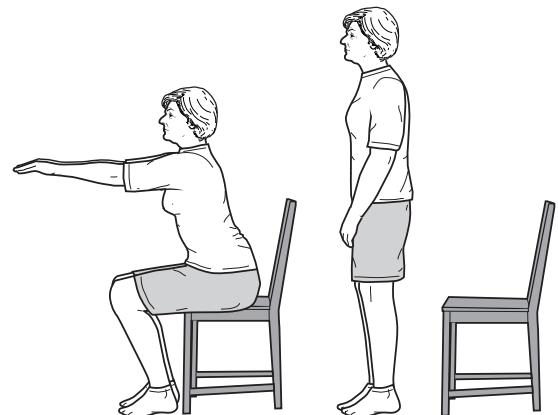
Ankle Pump



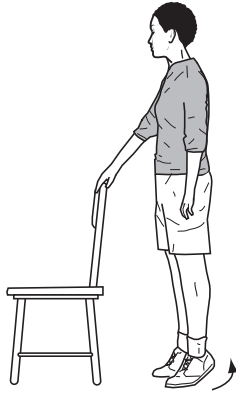
Knee Extension



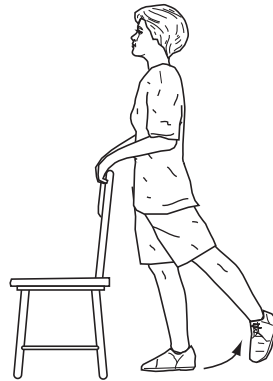
Sit to Stand



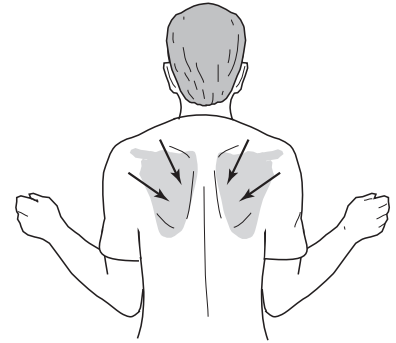
Calf Raise



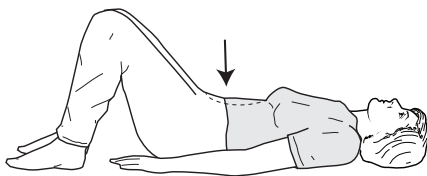
Glute Squeeze



Shoulder Blade Squeeze



Pelvic Tilt



Stretching Exercise

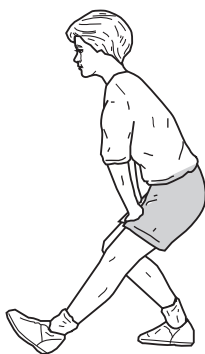
It is important to include stretching exercises to reduce the risk of injury, increase flexibility, and help with recovery. Stretching does not count toward your 150 minutes of exercise.

General stretching guidelines:

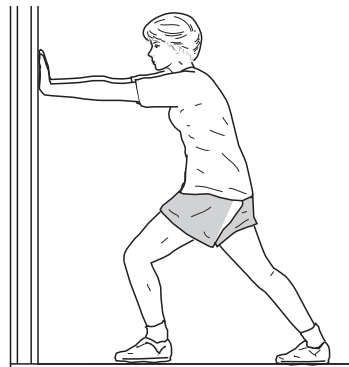
- Hold each stretch 10 to 30 seconds. Do NOT bounce!
- **Do 3 to 5 repetitions of each stretch** to improve your flexibility.
- Always warm up your muscles before you stretch. After a workout is a great time to stretch.
- You should feel the stretch in the muscle, not the joint.

Stretches to do:

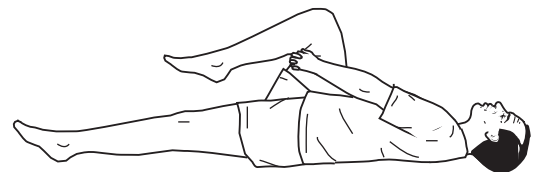
Hamstring Stretch



Calf Stretch



Hip Flexor Stretch

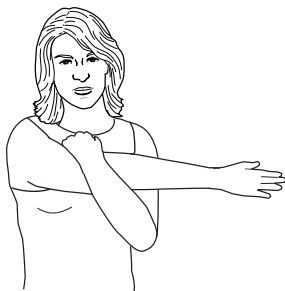


Stretches to do (continued):

Triceps Stretch



Shoulder Stretch



3 to 6 weeks after surgery

Remember: No lifting, pushing, or pulling more than 25 pounds until you are 6 weeks from the date of your surgery.

Aerobic Exercise

Continue to increase the frequency and duration of your walking. **Aim for at least 30 minutes per day for a total of 150 minutes per week.** You can continue to use shorter intervals as you build your endurance.

This would be a great time to add more types of exercise, such as biking, swimming, or water aerobics.

Strength Training

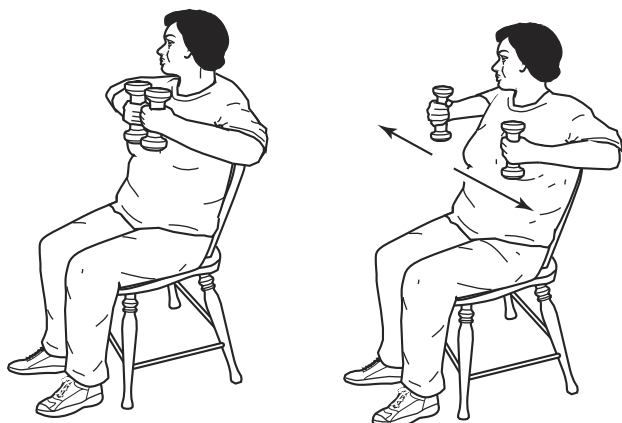
Progress to more challenging exercises, as tolerated.

For each exercise, do 3 sets of 10 repetitions, 2 to 3 times per week with 1 day of rest in between, as tolerated.

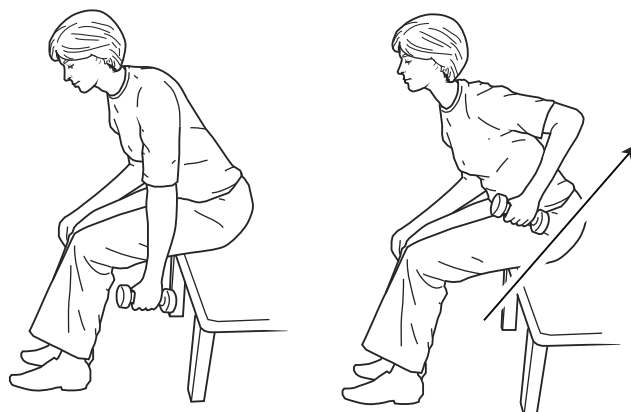
Consider adding resistance, like dumbbells or resistance bands, to exercises. Soup cans and water bottles can also be used.

Do these exercises:

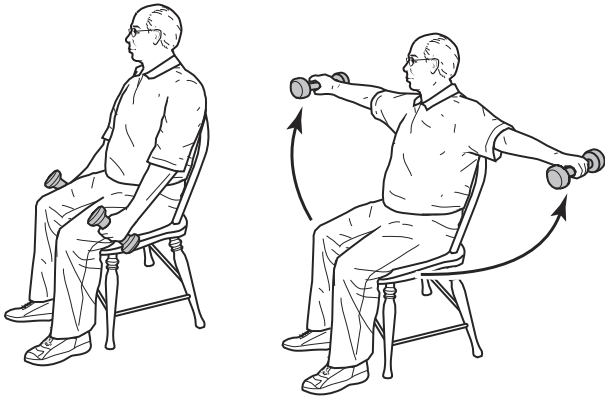
Chest Fly



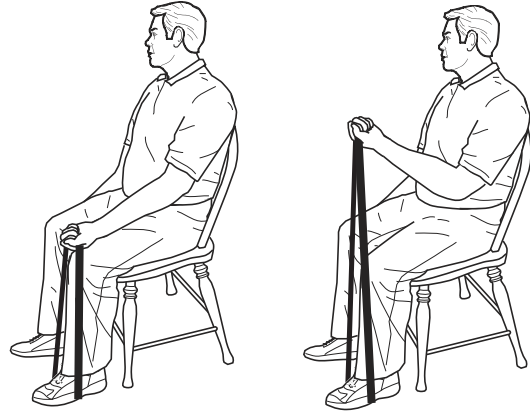
Bent Over Row



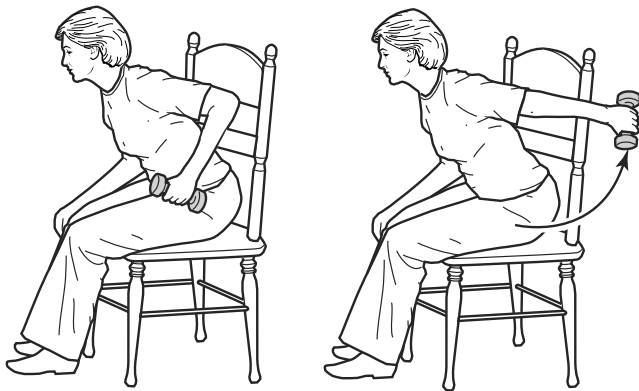
Lateral Shoulder Raise



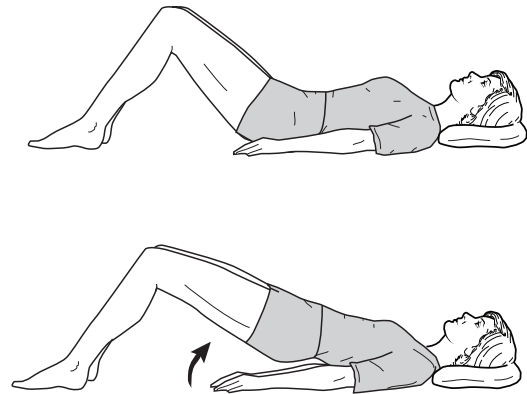
Biceps Curl



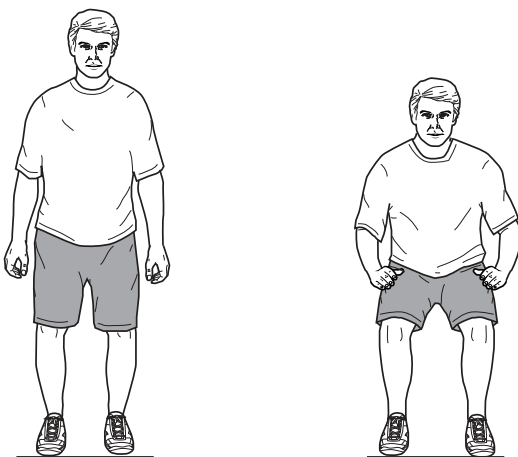
Triceps Extension



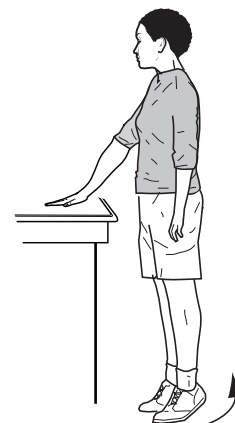
Glute Bridge



Squat



Calf Raise



Stretching Exercise

Stretch after your workouts to increase flexibility, decrease muscle soreness, and prevent injury.

6 or more weeks after surgery

There is no lifting restriction after 6 weeks post surgery.

Aerobic Exercise

Continue to increase the frequency and duration of your walking. **Aim for at least 30 minutes per day for a total of 150 minutes per week.** You can continue to use shorter intervals as you build your endurance.

For long term weight maintenance, work toward 300 minutes of aerobic exercise per week.

Continue to use a variety of exercises to prevent boredom and maintain consistency long term.

Strength Training

Progress to more challenging exercises, as tolerated.

For each exercise, do 3 sets of 10 repetitions, 2 to 3 times per week with 1 day of rest in between, as tolerated.

To make workouts more challenging and build muscle strength and endurance, you can:

- Increase the weight or resistance
- Add repetitions to each set
- Add more sets
- Include more exercises

Stretching Exercise

Continue to stretch after workouts to increase flexibility, decrease muscle soreness, and prevent injury.

Need more support?

If you are struggling with a home exercise program or would like a personalized fitness plan, consider joining an exercise program. A program gives more accountability and structure along with professional guidance for safe and effective exercise.

Resources to consider:

- Exercise is Medicine: go.osu.edu/eim
- Healthy Living: wexnermedical.osu.edu/weight-management/weight-management-nonsurgical/healthy-living
- Living Well: wexnermedical.osu.edu/weight-management/weight-management-nonsurgical/living-well
- Warm Water Pool: wexnermedical.osu.edu/weight-management/weight-management-nonsurgical/warm-water-pool



Follow Up Appointments After Bariatric Surgery

The Ohio State Comprehensive Weight Management Program

Bariatric Surgery in Martha Morehouse
Outpatient Care

2050 Kenny Road
Concourse Suite 1222
Columbus, OH 43221

614-366-6675

Clinic appointments

See your provider after bariatric surgery as directed.

You will have a follow up visit about:

- 2 weeks after surgery
- 4 weeks after surgery
- 8 weeks after surgery
- 6 months after surgery
- 1 year after surgery
- Annually

Contact the clinic 3 months before your desired appointment date to schedule.

Children 12 years of age or older are allowed to wait in the lobby during your appointments. For their safety, children under 12 years of age are not allowed to wait alone. Please arrange for childcare so that you can focus on the information discussed during your appointment and have the most successful surgery outcome.

Please silence your cell phone during appointments to avoid disruption of your care and distractions to other patients.

Lab work

Get your lab work done as directed by your provider.

Typically, lab work is done:

- 6 months after surgery
- 1 year after surgery
- Annually

Contact the clinic 2 weeks before your clinic appointment to request an order for lab work from your provider so that lab work can be done before your appointment. If you would like your lab work done at a lab outside of the Ohio State Wexner Medical Center, please provide us with the name and fax number of the facility where you would like the order for lab work sent.

When to arrive

Please arrive 30 minutes before your scheduled appointment time. Please also allow extra time to find parking. There is free surface lot parking for patients in designated areas and valet parking for a small fee. Our goal is to have you checked in and ready to see your provider at your scheduled appointment time.

If you are late for your appointment, we may ask you to reschedule.

Nausea and Vomiting After Bariatric Surgery

Nausea is a sick, uncomfortable feeling in your stomach that often comes before you vomit or throw up. Nausea and vomiting are common after bariatric surgery and may cause you to eat and drink less.

To prevent nausea and vomiting:

- Take your anti-nausea medicine.
- Drink enough liquids.
- Try the tips listed in this handout.

You may also find it helpful to talk to a dietitian to go over your food record and receive personalized tips.

Follow these tips to prevent nausea and vomiting

1. **Take your anti-nausea medicine** as ordered by your healthcare provider, even if you do not have nausea.
2. **Keep track of how much liquid you are drinking daily. Drink at least 64 ounces of liquid each day.**
 - For the first week after surgery, take a sip of liquid (protein shake or water) every 3 minutes to finish **1 ounce every 10 minutes**.
 - Beginning week 2, take sips of liquid (protein shake or water) to finish **1 ounce every 3 to 5 minutes**.
 - If you have nausea, choose water and other clear, sugar free liquids.
3. **Follow these eating tips:**
 - Avoid extreme temperatures of hot and cold.
 - Avoid foods that have a strong odor. Keep a lid on foods and drinks to help reduce smells while eating.
 - Avoid foods with a lot of spice. Too much flavor can be overwhelming right after surgery.
 - Eat small portions of food 5 to 6 times a day: $\frac{1}{4}$ cup for the Step 2 diet and up to $\frac{1}{2}$ cup for the Step 3 diet. Your dietitian will tell you when it is safe to start the Step 3 diet.
 - Do not skip snacks or meals. Set a reminder to eat.
 - Eat slowly and take small bites (dime size or smaller) of food.
 - Chew food well until it reaches a “mushy” consistency before swallowing.
 - Always check your tolerance level for foods. Avoid poorly tolerated or hard to digest foods until a later date.
 - If nausea and vomiting occur after eating a new food, wait 2 weeks before trying it again.

- Cook, cool, and store all foods properly to avoid food spoilage and food borne illness.
- When reheating food, add more moisture to avoid it getting tough or chewy.

4. Follow these tips when vomiting occurs:

- Drink small amounts of clear liquids after the last bout of vomiting. Try water, bouillon, broth, Pedialyte Advanced Care Plus, or caffeine free unsweetened tea.
- Avoid alcohol, caffeine, and carbonated drinks.
- Sugar free popsicles count as a liquid. Store bought popsicles equal about 1 ounce of liquid. You can make your own popsicles by pouring liquids into a popsicle mold or ice cube tray. Consider adding protein to the liquid or freeze protein drinks.
- Avoid solid foods until vomiting has passed. If you are on the Step 3 diet, you may need to drink more liquids and eat pureed foods (Step 2 diet) temporarily, and then slowly reintroduce soft, semi-solid, and solid foods, as tolerated.

5. Other tips:

- Keep a record of what you eat and drink. This can help you find what causes your nausea and vomiting. Keeping a record will also help you meet your liquid and protein goals.
- Avoid drinking liquids with meals. Stop drinking liquids 10 minutes before eating. Wait 30 minutes after eating to drink.

It is important to avoid dehydration. Please begin following the tips above and contact the clinic. **Reach out as early in the day as possible by calling 614-366-6675 or sending a MyChart message.**

Dehydration After Bariatric Surgery

Dehydration can happen when:

- You are not drinking enough liquids to meet your body's needs.
- You lose fluids by vomiting or having diarrhea.
- Nausea and vomiting prevent you from eating and drinking.
- Abdominal pain from smoking or nicotine use prevents you from eating and drinking. Nicotine use after bariatric surgery can cause nausea, vomiting, pain, and ulcers.

In most cases, you can prevent dehydration by drinking enough liquids. But if you get behind on liquids, it is hard to get caught up.

Dehydration can lead to serious complications. **Call 614-366-6675 or send a MyChart message if you think you are dehydrated.**

Signs of dehydration

Call 614-366-6675 if you are not able to tolerate liquids or if you have any of these symptoms:

- Dry mouth
- Dry skin
- Decreased urination
- Dark urine
- Dizziness, especially when changing positions, such as from sitting to standing
- Fast breathing
- Light-headedness
- Increased heart rate
- Increased fatigue
- Confusion
- Increased thirst
- Decreased level of alertness
- Increased constipation
- Nausea

Follow these steps to prevent and treat dehydration

1. **Take your anti-nausea and pain medicine** as ordered by your healthcare provider.
2. **Keep track of how much liquid you are drinking daily. Drink at least 64 ounces of liquid each day.**
 - For the first week after surgery, take a sip of liquid (protein shake or water) every 3 minutes to finish **1 ounce every 10 minutes**.
 - Beginning week 2, take sips of liquid (protein shake or water) to finish **1 ounce every 3 to 5 minutes**.
 - If you have nausea, choose water and other clear, sugar free liquids.

Tips to meet your liquid goal of 64 ounces per day

- Set 4, 16.9 ounce bottles of water on a counter or refrigerator shelf in the morning, as a reminder and way to track your liquids.
- Measure out your total liquid for the day in a pitcher in the morning. Pour liquid from this pitcher to drink from throughout the day.
- Use a water bottle with markings to keep track of how much you have had to drink, or use a smart water bottle, such as Hidrate Spark.
 - If you are adding ice to a bottle, measure the amount of liquid before pouring the ice into the bottle to know the amount of liquid in the bottle.
 - Always have the bottle with you for easy access.
- There are apps to help remind you to drink and track liquids, such as:
 - Hydro Coach
 - WaterMinder
 - Hidrate Spark, which is an app used with a bottle that lights up to remind you to drink
 - Baritastic
 - Daily Water Track Reminder
- Have a plan to drink a certain amount of liquids by a set time. For example:

8 oz	10 a.m.
16 oz	Noon
24 oz	2 p.m.
32 oz	4 p.m.
40 oz	6 p.m.
48 oz	8 p.m.
64 oz	10 p.m.

- Consider adding protein to your liquid to meet both liquid and protein goals.
- Sugar free popsicles and gelatin count toward your liquid goal.
 - Freeze clear liquids or protein drinks to suck on throughout the day.
 - Make your own popsicles by pouring liquids into a popsicle mold or ice cube tray. Consider adding protein to the liquid or freeze protein drinks.
 - Store bought popsicles equal about 1 ounce.
- If you feel nauseated from the smell, try liquids that do not have a strong odor.
- You do not need to wake up during the night to take a drink. But if you are napping throughout the day, you do need to set an alarm to remind you to wake up and drink.

Constipation After Bariatric Surgery

Constipation is when you are not able to have a bowel movement for several days or have stools that are hard to pass. Common symptoms of constipation include:

- Hard, dry stool
- Stomach pain or bloating
- Nausea and vomiting
- Loss of appetite

There is no “normal” number of bowel movements, as the normal number of bowel movements is different for each person. You may have 2 to 3 bowel movements each day or 2 to 3 bowel movements each week.

Causes

Constipation may be related to many things. After bariatric surgery, likely causes may be:

- Not drinking enough liquids
- Not getting enough fiber in your diet
- Eating less solid food, causing a change in bowel movements
- Side effects from medicines or supplements (for example, high protein shakes may cause loose stool or constipation)
- Lack of physical activity or exercise

Follow these steps to treat constipation

1. **Keep track of how much liquid you are drinking daily. Drink at least 64 ounces of liquid each day.**
 - For the first week after surgery, take a sip of liquid (protein shake or water) every 3 minutes to finish **1 ounce every 10 minutes**.
 - Beginning week 2, take sips of liquid (protein shake or water) to finish **1 ounce every 3 to 5 minutes**.
 - If you have nausea, choose water and other clear, sugar free liquids.

2. **Take these over the counter medicines to treat constipation, as needed.** Stop taking the medicine or reduce the amount of medicine that you are taking if you have diarrhea. Talk to your healthcare team if you have questions.
 - **Polyethylene glycol (Miralax):** Mix 1 capful (17 grams) of powder in 4 to 6 ounces of liquid, 1 to 2 times each day.
 - **Docusate (Colace):** Take 1 to 2 pills daily as needed.
 - **Milk of magnesia (MOM):** Take 1 tablespoon (15 mL) up to 4 times daily as needed. Do not take more than 4 tablespoons (60 mL) in a 24 hour period.
3. **Exercise regularly as advised by your healthcare team.**
 - **No lifting, pushing, or pulling** more than 10 pounds for 2 weeks after surgery, and then, no lifting, pushing, or pulling more than 25 pounds until you are 6 weeks from the date of your surgery.
 - **Walk at least 5 times each day.** Increase activity gradually until you can walk 20 to 30 minutes a day. Follow the exercise plan on pages 33 to 37 to safely increase your activity and exercise the first 6 weeks after surgery.
4. **Slowly increase fiber in your diet, as tolerated.** Good choices include fruits, vegetables, and whole grains.
 - **Check that the fiber food source is allowed on your current Step diet.** Talk to your dietitian if you have questions.
 - Add probiotics, such as kefir, kimchi (sour but may be spicy), tempeh, and yogurt. If you do not like these options, talk to your dietitian about a probiotic supplement.
 - Decrease fermentable fiber food sources, such as barley, beans, garlic, lentils, onion, rye, and wheat.

When to call your provider

Call 614-366-6675 if you have not had a bowel movement within 3 to 5 days after surgery.

It is important to call if:

- You have severe stomach pain or cramps.
- You are not able to pass gas.
- You have severe nausea or vomiting.
- You have changes in color or firmness of your stools.
- Your abdomen (stomach) feels hard.
- You have no bowel movement after drinking enough liquids and taking over the counter medicines to treat constipation.

Gas and Belching After Bariatric Surgery

Bariatric surgery may cause an increase in:

- Gas (flatulence)
- Burping or belching
- Bloating (a feeling of fullness or pressure in your abdomen)

This may be related to the smaller size of your stomach, a change in how foods and nutrients get absorbed, certain foods, or the way you eat.

Things to do to improve your symptoms

Reduce Air Swallowing

Swallowing air is a common cause of belching and may contribute to bloating. To decrease the amount of air that you swallow:

- Avoid talking during meals.
- Avoid drinking from a straw or bottle.
- Avoid eating too fast.
- Avoid large food portions, taking large bites of food, and not chewing food thoroughly.
- Avoid chewing gum or tobacco.

Limit or Avoid Food and Drinks That Cause Your Symptoms

Foods may produce gas for one person but not for others. To figure out which foods cause gas for you, **keep track of the amount and type of foods and drinks you eat.**

Common foods and drinks known to increase gas include:

- Milk and milk products – After bariatric surgery, you may have trouble digesting lactose, a natural sugar found in milk and milk products. To help you tolerate foods that contain lactose:
 - › Try different types of milk products. Yogurt and cheese may be better tolerated than milk.
 - › Reduce portions or serving sizes of milk and milk products.
 - › Eat milk and milk products with other foods.
 - › Choose lactose free or low lactose milk products, or use lactase supplements to break down the lactose in the food and drinks you eat.
- Sugar and sugar alcohols – These include erythritol, isomalt, lactitol, maltitol, mannitol, sorbitol, and xylitol. They are often used in sugar free gum, candies, desserts, and snacks.
- Fiber rich foods – These include broccoli, cauliflower, cabbage, onions, and legumes or beans.
- High fat foods – These include sauces, gravies, pastries, fatty meats, and fried foods.

- Carbonated drinks, including beer.
- Liquids that are hot or very cold as they may cause spasms and pain in the esophagus.

Take Over the Counter Products to Manage Gas

- Alpha-galactosidase supplements: Products like **Beano** help break down hard to digest carbohydrates.
- Simethicone supplements: **Gas-X** and **Mylanta** help move gas along the digestive tract for faster relief.
- Lactase supplements: Products like **Lactaid** can help digest the gas-producing sugars found in milk products.
- Probiotics: Gastrointestinal distress, such as gas, may occur when harmful microorganisms begin to outweigh the good. A probiotic, such as **yogurt**, may help restore the balance between healthy and unhealthy bacteria.

Dumping Syndrome After Bariatric Surgery

About dumping syndrome

Dumping syndrome is often experienced by people who have had gastric bypass or sleeve gastrectomy surgery. After surgery, the size of your stomach is much smaller. This affects how your stomach regulates the amount of food moving to the intestines for digestion. Your stomach pouch cannot hold as much food and liquids as before surgery. When you eat a regular size meal after bariatric surgery, the food in the stomach may be “dumped” too quickly into the bowels. Also, when sugars that you have eaten are dumped into the bowels, they may act like sponges. They rapidly absorb water from the body in the intestines.

Signs of dumping syndrome

There are 2 types of dumping syndrome: early dumping and late dumping.

- **Early dumping:** Happens 10 to 30 minutes after a meal. A person may have nausea, bloating, cramping, or diarrhea.
- **Late dumping:** Happens 1 to 3 hours after a meal. A person may feel weak or dizzy, sweat, and may want to lie down. Lying down for 30 to 60 minutes may help with these signs. If it does not, call your healthcare provider.

How to prevent dumping syndrome

You can help to prevent dumping if you:

- Avoid sugar and sweets.
- Eat small meals more often.
- Avoid drinking while eating.

1. Avoid sugar and sweets.

After surgery, sugar and sweets tend to enter the bowel too quickly. This can cause cramps and diarrhea.

- Read food labels. **Limit sugar to 10 grams (2½ teaspoons) or less per meal or snack.**
- **Choose products that are labeled sugar free.** Sugar free products have less than 5 grams of sugar per serving. Look for sugar free versions of foods high in sugar, including barbecue sauce, cereals, frozen yogurt, fruit flavored yogurt, fruit juice, granola, jam, gelatin, Kool-Aid, soft drinks, syrup, and desserts.
- Sugar substitutes may be used **in moderation**, such as Splenda, Sweet’N Low, Equal, Stevia, and Sweet One instead of sugar.

- **Limit sugar alcohols to 10 grams or less**, such as sorbitol, malitol, xylitol, mannitol, erythritol, isomalt, and lactitol. They may lead to dumping syndrome.
- **Avoid products with sugar as a main ingredient.** If one of the first three ingredients on the label is on this list, do not eat or drink that food:
 - Corn syrup
 - Dextrose
 - Fructose
 - Glucose
 - Sugar
 - Sucrose
 - Molasses
 - Honey

2. Eat small meals more often.

Small meals will make you feel full and are easier to digest.

- Eat 5 to 6 small meals each day, 2 to 3 hours apart.
- Keep portion sizes small.
- Eat slowly. Cut foods into pieces smaller than a dime. Chew food thoroughly.
- **When you first begin to feel full, stop eating.** Never force yourself to finish a meal or eat until you are “stuffed.” Let your stomach be the guide.

3. Avoid drinking while eating.

- Do not drink with meals. Stop drinking about 10 minutes before meals and restart drinking 30 minutes after meals. Drinking liquids at meals has the same effect as eating large amounts of foods, and may cause dumping syndrome.
- Drinking with meals may also push food through your stomach pouch too quickly, causing the stoma to widen. This will allow more food to pass quickly. It can lead to eating larger portions of food and weight gain.

Fatigue After Bariatric Surgery

After bariatric surgery, you may have less energy. With a smaller stomach, you feel full sooner and eat less. This reduces nutrient absorption, which may cause lethargy and feelings of being tired or having low energy.

Things to do to help your fatigue

- 1. Take your vitamins as prescribed.** Vitamins are lifelong for bariatric surgery patients. You may have symptoms of vitamin deficiency, including fatigue, shortness of breath, and dizziness, and not know that vitamin deficiency is the cause. This may be because before surgery you did not need to take daily vitamins.
- 2. Get enough calories and protein.** Calories provide energy for your body to heal.
 - A Step 2 diet should provide 600 to 800 calories with at least 60 grams of protein per day.
 - A Step 3 diet should provide 800 to 1,000 calories with at least 60 grams of protein per day.
 - A Step 4 diet should provide 1,200 calories per day with at least 60 grams of protein per day.

Keep a record of what you eat and drink, and remember to eat slowly and mindfully. Take time to read your surgery materials regarding your diet. Please call, message, or schedule an appointment with one of our dietitians if you have questions or concerns. They can help calculate how many calories and how much protein you are eating. They can also provide personalized tips.
- 3. Keep well hydrated!** You should get no less than 64 ounces, which is ½ gallon, of sugar free and caffeine free beverages every day.
- 4. Give your body time to heal,** particularly if you have had surgery within the last 6 weeks.
- 5. Be aware of your mood and mental state.** Surgery is stressful. Be mindful of the discussions you have had with your psychologist before surgery and recommendations from any other mental health professionals that you see. It is important to actively manage depression and anxiety for your recovery and overall good health.
- 6. Take all medicines as prescribed.** Remember to visit your primary care provider to make any needed adjustments to your preexisting medicines after bariatric surgery.
- 7. Exercise regularly.** Remember your lifting restrictions after surgery: no lifting, pushing, or pulling more than 10 pounds for 2 weeks after surgery and no lifting pushing or pulling more than 25 pounds until you are 6 weeks from the date of your surgery. Work up to activities after surgery to give your body time to heal and get used to your low calorie intake. For example, walk daily or start low impact seated exercises to slowly build your strength.

Alcohol Use After Bariatric Surgery

After bariatric surgery, your body will process alcohol differently, as your smaller stomach cannot break down alcohol in the same way.

- Alcohol will be absorbed more quickly and processed more slowly.
- Blood alcohol levels will peak higher and faster and take longer to return to normal.

This will cause you to feel drunk much faster on a smaller amount of alcohol.

Alcohol use

Avoid alcohol for at least 6 months after bariatric surgery. If you do drink alcohol after 6 months, it should be infrequent, in smaller amounts, and alcohol that is lower in sugar content. Avoid mixed cocktails with juice, soda, and added sugar. After surgery, 1 drink of alcohol will be equal to several drinks.

Problems That May Occur If You Drink Alcohol

- Alcohol is irritating to the lining of the stomach and may increase your risk of getting an ulcer.
- Alcohol can cause your blood sugar level to spike quickly and cause dumping syndrome.
- Alcohol contains empty calories, so it may slow your weight loss.
- You may make poor food choices while drinking alcohol, which may slow your weight loss.

Be Safe

Do not drink and drive or operate heavy equipment! Even if you feel sober, your blood alcohol level may still be over the legal limit.

Resources to Help

If you've had a previous addiction (smoking, drugs, gambling, eating, etc.), you have a higher risk of developing a new addiction. If you drink regularly to cope with emotions or stress, please seek help. Talk to your healthcare team and review the resources shared in the handout "Drug and Alcohol Treatment Centers," which is in "Having Bariatric Surgery: Book 1." You may access the online version of this book by visiting go.osu.edu/pted3689.

Lactose Intolerance After Bariatric Surgery

People who are lactose intolerant are not able to digest lactose, a sugar that is found in milk and milk products. If you have this problem, your body does not make enough of an enzyme called lactase, which is used to digest lactose. When you eat or drink milk or milk products, you may have bloating, gas, cramping, diarrhea, and nausea.

Lactose intolerance generally develops over time because the body produces less lactase as we age. While uncomfortable, lactose intolerance is typically harmless and can be treated by limiting or avoiding milk and milk products.

After bariatric surgery, some people become lactose intolerant because milk and milk products pass through the stomach pouch into the small intestine at a much faster rate. This can overwhelm the lactase available, leading to stomach discomfort.

Follow these tips to manage your symptoms

1. Limit the amount of milk and milk products in your diet.

- Eat or drink milk and milk products that have reduced lactose, such as Lactaid milk.
- Slowly add small amounts of food and drinks that contain lactose to check your tolerance.
- Eat small amounts of milk products throughout the day instead of larger amounts all at once. For example, you may be able to tolerate 4 oz of milk each day if you only drink 1 to 2 oz at a time.
- Only add 1 new milk product a day and slowly increase the amount each day as tolerated.
- Only eat 1 food that contains lactose per meal.
- Eat or drink milk and milk products along with other foods at meals and snacks.

2. Try yogurt or Greek yogurt with active cultures.

- You may be able to digest yogurt better than milk due to its lower lactose content and added probiotics.
- Your tolerance may vary by brand.

3. Choose lactose free or low lactose products.

- Try non-dairy milk alternatives, such as almond, soy, or oat milk.
- Try lactose free cow's milk, such as Lactaid milk.
- Try cheeses that have reduced lactose, such as hard, aged cheeses, like Swiss, Parmesan, and sharp cheddar, and feta cheese made from goat or sheep's milk.
- Try cottage cheese made from almond, goat, or sheep's milk.

4. Use lactase supplements to break down lactose in the food and drinks you eat, reducing symptoms of lactose intolerance.

- Lactase supplements are available over the counter in liquid, tablet, and chewable forms.
- Do not use lactase supplements without checking with your provider if you are pregnant or breastfeeding.

- Take the lactase supplement before you eat or drink a milk based product. You can also add lactase drops to milk before you drink it.

5. Talk to your dietitian for support.

- Your dietitian can recommend foods and protein shakes that are lactose free or low in lactose. They will also make sure that your calorie and protein needs are still being met.
- Keep track of what you are eating to help you find and avoid foods that make your symptoms worse.

6. Check ingredients on food labels. Lactose may be found in:

- Cheese
- Curds
- Dry milk powder
- Dry milk solids
- Milk by-products
- Nonfat dry milk
- Whey

You may need to avoid foods that say “may contain milk” on the food label.

7. Check over the counter and prescription medicines for lactose.

- Ask your provider or pharmacist which medicines contain lactose and read labels of over the counter medicines to check for lactose.
- Prescription medicine, such as oral birth control, may contain lactose.
- Over the counter medicines to treat stomach acid and gas may contain lactose.
- Viactiv calcium chews contain lactose.
- These medicines usually only affect people with severe lactose intolerance.

Get enough calcium in your diet

Milk and milk products are a major source of calcium. Calcium is an important nutrient that is needed to maintain strong bones and teeth. It also plays an important role in blood clotting. It works to help muscles contract and regulates normal heart rhythms and nerve functions.

If you have trouble getting enough calcium in your diet because you need to limit or avoid milk and milk products, talk to your dietitian about other food sources for calcium. Foods rich in calcium include:

- Broccoli, bok choy, kale, and collard, mustard, and turnip greens
- Canned sardines and other small fish that have bones you can eat
- Soy products, such as calcium fortified soy milk and tofu
- Almonds
- Dried beans

If you are drinking protein shakes to meet your protein goal after surgery and are not able to tolerate milk based protein drinks, please contact your dietitian for other options.

When to call your provider

Call 614-366-6675 if you are not able to:

- Get the amount of calories each day recommended by your dietitian.
- Get at least 60 grams of protein each day and/or are not tolerating protein shakes.
- Control your symptoms despite following the tips in this handout.

Hair Loss After Bariatric Surgery

Hair loss is common after bariatric surgery, but it is usually temporary. Although it is not fully understood why it happens, hair follicles may be forced into a dormant phase after surgery. This can last 3 to 6 months, and then the hair falls out. There is no way for hair that has become dormant to reactivate. It may take 6 months for all dormant hair to fall out, but your body will start growing more hair over time. There is no “normal” amount of hair loss after surgery, and hair loss varies between individuals. You may not experience hair loss.

After surgery, hair loss may occur due to:

- Not drinking enough liquids
- Not getting enough protein
- An extreme diet change where solid food is limited
- Medicine or supplement side effects
- Vitamin or mineral deficiencies from not taking your multivitamins daily
- Rapid weight loss
- Hormone imbalance – too much or too little of 1 or more hormones
- High stress
- A side effect of anesthesia

Follow these tips to reduce hair loss after surgery

- 1. Keep track of how much liquid you are drinking daily. Drink at least 64 ounces of liquid each day.**
 - For the first week after surgery, take a sip of liquid (protein shake or water) every 3 minutes to finish **1 ounce every 10 minutes**.
 - Beginning week 2, take sips of liquid (protein shake or water) to finish **1 ounce every 3 to 5 minutes**.
 - If you have nausea, choose water and other clear, sugar free liquids.
- 2. Get at least 60 grams of protein each day.**
 - Drink protein shakes to meet your body’s liquid and protein needs.
 - At meals, choose foods that are high in protein to eat first. Protein is found in meat, meat alternatives, milk, and milk alternatives.
- 3. Take 2 chewable multivitamins with iron each day, as directed.** Take 1 vitamin in the morning, and 1 vitamin in the evening with a meal in which you have included some fat to help absorption. Once you move to the Step 3 diet, you may ask your dietitian about other multivitamin options.
 - Taking your multivitamins is as important as taking prescription medicines, as they prevent vitamin and mineral deficiencies.
 - At meals, choose a variety of foods in a variety of colors to increase the number of vitamins and minerals you get from food.

- Iron deficiency can play a role in hair loss. Signs of iron deficiency include anemia, dizziness, fatigue, and headaches. Eat food rich in vitamin C, such as red pepper and tomato, when eating foods high in iron to help iron be better absorbed. Good sources of iron include lean red meat, skinless poultry, seafood, fortified unsweetened breakfast cereals, tofu, whole grains, beans, and nuts.
 - Zinc helps grow healthy hair. Signs of zinc deficiency include brittle nails, diarrhea, fatigue, loss of sense of taste, and slow wound healing. Good sources of zinc include lean red meat, skinless poultry, seafood, fortified unsweetened breakfast cereals, whole grains, beans, and nuts.
- 4. Eat at least 5 to 6 small meals/snacks each day.** Talk to your dietitian about how many calories you need to eat while on the Step 2 and Step 3 diets. Eating too little food may cause hair loss.
- Record everything that you eat (what and how much) and share this record with your dietitian.
 - Consider using an app to track what you eat, such as MyFitnessPal, Lose It!, or Baritastic.
- 5. Get your lab work done as ordered by your provider.**
- Typically, lab work is done at 6 months after surgery, 1 year after surgery, and then annually.
 - 2 weeks before your clinic appointment, call 614-366-6675 or send a MyChart message to request an order for lab work from your provider, so it can be done before your appointment.
 - If you would like your lab work done at a lab outside of the Ohio State Wexner Medical Center, please provide us with the name and fax number of the facility where you would like the order for lab work sent.
- 6. Only eat foods that are on the Step diet you are on.** Do not try to advance your diet early.
- 7. Tell your provider about all the medicines that you are taking,** including over the counter and prescription medicines, and vitamin, mineral, and herbal supplements.
- 8. Follow up with your provider after bariatric surgery as directed.** After 1 year, you will continue to have a follow up appointment annually. Contact the office 3 months before your desired appointment date to schedule.

When to call your provider

































































Call 614-366-6675 if you are not able to:

- Get the number of calories each day recommended by your dietitian.
- Drink at least 64 ounces of liquid each day.
- Take multivitamins with iron each day.
- Get at least 60 grams protein each day and/or are not tolerating protein shakes.

Liquid Tracking Tool: 64 Ounces

































































Keep track of how much liquid you are drinking daily. Drink at least 64 ounces of liquid each day. One medicine cup is equal to 1 ounce (oz).

- For the first week after surgery, take a sip of liquid (protein shake or water) every 3 minutes to finish **1 ounce every 10 minutes**, finishing 6 ounces or 1 row of medicine cups in 1 hour.
- Beginning week 2, take sips of liquid (protein shake or water) to finish **1 ounce every 3 to 5 minutes**, finishing 6 ounces or 1 row of medicine cups in 20 to 30 minutes.

Time:							Total liquid:
_____							6 oz (180 mL)
_____							12 oz (360 mL)
_____							18 oz (540 mL)
_____							24 oz (720 mL)
_____							30 oz (900 mL)
_____							36 oz (1,080 mL)
You are halfway there! Try to drink 36 oz (1,080 mL) by 2 p.m. if you can!							
_____							42 oz (1,260 mL)
_____							48 oz (1,440 mL)
_____							54 oz (1,600 mL)
_____							60 oz (1,780 mL)
_____					You did it!		64 oz (1,900 mL)

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_____							60 oz (1,780 mL)
_____					You did it!		64 oz (1,900 mL)

Home Record After Bariatric Surgery

We recommend that you take this record to your follow up appointment.

Week 1 Date	Incentive Spirometer Goal: _____	Liquids Record amount each day Goal is 64 ounces a day	Protein Record amount each day Goal is 60 grams a day	Walking At least 5 times a day Record distance	Comments or Questions

Week 2 Date	Incentive Spirometer Goal: _____	Liquids Record amount each day Goal is 64 ounces a day	Protein Record amount each day Goal is 60 grams a day	Walking At least 5 times a day Record distance	Comments or Questions

Portion Card

Portion card – cut out below

Please note:

- We do not recommend eating restaurant foods while you are on the Step 2 or Step 3 diet.
- Not all restaurants may honor this card.
- Your meal size is $\frac{1}{4}$ cup (Step 2 diet) or $\frac{1}{2}$ to $\frac{3}{4}$ cup (Step 3 diet). A senior or children's meal equals 2 to 3 meals for you. Consider ordering a side dish or soup instead.
- You will have the most success when you limit the number of times that you eat out, pay close attention to your food choices, and avoid fried foods and empty calories.



This patient has had gastric surgery.
Please allow them to order half portions
or to order from the senior or children's
menu.

 **THE OHIO STATE UNIVERSITY**
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