



A Guide to Enhancing Your Recovery After Bowel Surgery

Please bring this booklet with you every time you visit the hospital prior to your surgery.

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Introduction

The information in this booklet is for educational purposes. It is not intended to replace the advice or instruction of a professional healthcare practitioner nor substitute medical care. Contact your surgeon if you have any suggestions about your care.

This booklet is part of the Best Practice in General Surgery's (BPIGS) Enhanced Recovery after Surgery (ERAS) program. The goal of this program is to increase your satisfaction, decrease postoperative complications, and speed your recovery. BPIGS' goal is to make sure that you receive the best care by standardizing general surgery practices based on the best evidence.

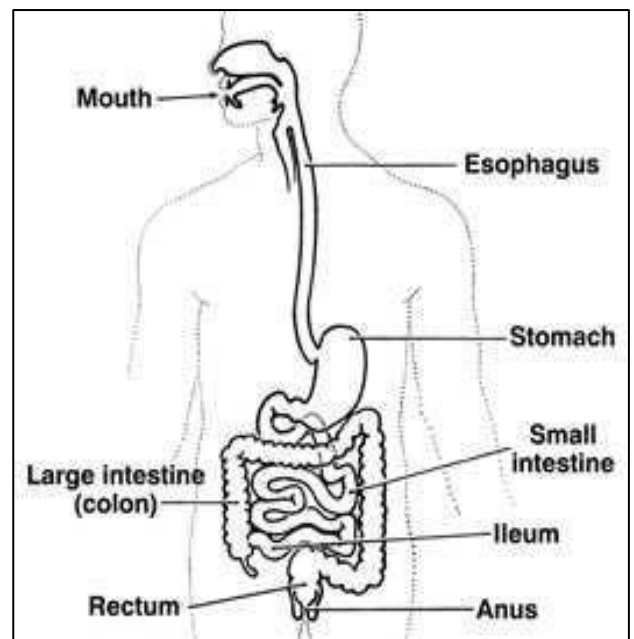
ERAS is a program that involves many academic hospitals across Ontario. The ERAS program includes surgeons, anesthesiologists, nurses, dieticians, physiotherapists, and other allied health personnel who are working together to provide you with the best care. The goal of the program is to improve your recovery so you can go home sooner after surgery. A second goal of the program is to improve your satisfaction with the care that you receive.

What is the Bowel?

When eating, food passes from your mouth and through the esophagus into your stomach. From there it passes into the small bowel (small intestine), then to the large bowel (large intestine), then to your rectum, and is then removed through the anus.

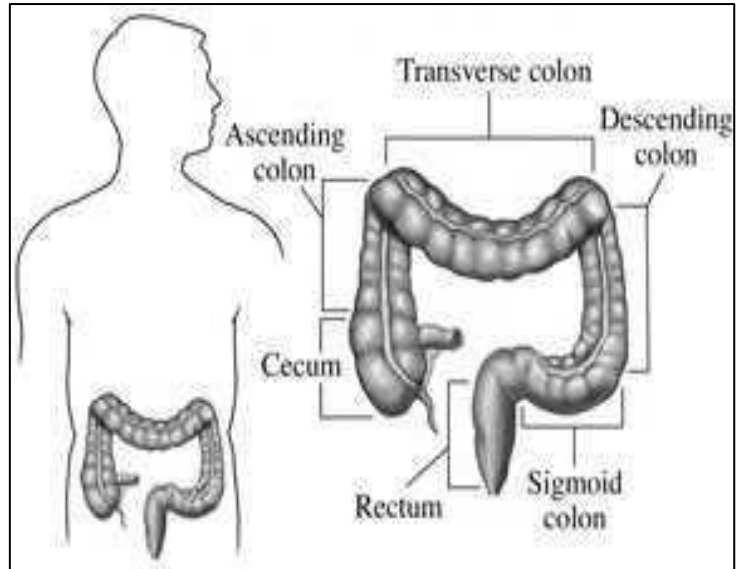
The Small Bowel

This is where your food and nutrients are absorbed. The small bowel is 20-25 feet long and loosely coiled in your abdomen. It has 3 sections, starting with the duodenum, then the jejunum and lastly, the ileum.



The Large Bowel (Colon)

This is where the fluid is absorbed from food and where stool (your bowel movement) is formed. The large bowel is 6 feet long and is made up of 6 sections starting from where it connects to the end of the small bowel, the cecum, then the ascending colon, transverse colon, descending colon, sigmoid colon, and lastly, the rectum.



The Rectum and Anus

The stool is then stored in the rectum that acts as a holding area until the stool is passed out the body through the anus.

What is Bowel Surgery?

Bowel surgery (also known as colorectal surgery) is the removal of a diseased section of bowel between your stomach and anus while you are asleep from a general anesthetic. Common reasons for having bowel surgery are cancer, diverticulitis, Crohn's disease, ulcerative colitis, and large polyps. Your surgery can be done in 2 ways:

Laparoscopic

Your surgeon will make several small incisions in your abdomen. Surgical instruments will be passed through these incisions. Your abdomen will be filled with air which helps your surgeon view the abdominal cavity with a camera. Images of your bowel will then be displayed on a monitor in the operating room. This is how your surgeon will see to remove the diseased bowel. The two remaining healthy ends of the bowel will be sewn back together or a stoma will be created. An incision (approximately 10 cm) is made to remove the diseased segment of bowel.

****It is possible that a laparoscopic surgery may be converted to open surgery.****

Open

When it is not possible to use the laparoscopic technique (due to previous abdominal surgeries, scarring, or location of diseased bowel), an open bowel resection is done through a single incision, 10-20cm long, in the middle of the abdomen. Once the diseased bowel has been removed, the two remaining healthy ends of bowel are then sewn back together or a stoma will be created. The skin incision is often closed with staples. These are usually removed 10-14 days after surgery.

Stomas

My Surgeon has told me that I may have a stoma/pouch on my abdomen following my surgery. What does that mean?

In order to relieve your symptoms or remove a diseased part of your bowel, your surgeon may have to create an artificial opening on your abdomen where stool (waste) will come out. This is called a stoma. The stoma may be temporary to allow your bowel time to heal after surgery or it may be permanent. The placement of the stoma on your abdomen will depend on the type of surgery you require. The stoma will be moist and pinkish-red in colour and will protrude slightly from your abdomen. It may be quite swollen to begin with but will reduce in size over time – usually after 6-8 weeks. A specially-trained ostomy nurse will provide support in the event you require a stoma.

What will my surgeon do to prepare for my surgery and possible stoma?

When possible, your surgeon will arrange for you to meet with a nurse specialized in ostomy care (care of a stoma) prior to the surgery. During this visit, the nurse will talk about what will happen following your surgery in hospital and on your discharge home.

The nurse will provide you with some information that you may read before your surgery to prepare you should your surgeon need to create a stoma. The nurse will show you an ostomy pouch and demonstrate how to empty it so that you may practice with the equipment before your surgery.

The nurse will also “mark” a spot on your abdomen where the surgeon will create the stoma. In order to choose the best spot on your abdomen for placement of the stoma, the nurse may ask you to sit/stand/bend/lie so that they may choose a location that is

free from folds in the abdomen and any scars. They will also choose a spot that you can see so that you are able to care for your stoma/ostomy following surgery.

The nurse will also discuss where to obtain supplies following your discharge home.

When will the ostomy nurse come to see me in the hospital?

The nurse specialized in ostomy care will most likely visit you 2-3 days after surgery when you are awake and able to learn and participate in your care. The nurse will review how to bathe/shower, your diet, where to pick up supplies, and how to manage gas/odor/constipation/diarrhea.

The nurse will also teach you how to change your ostomy flange and pouch during their visit.

Planning for Your Surgery

Plan ahead. Make sure that you know who is going to take you home. Also, make sure that everything is ready for you when you go home after your surgery. You should be able to walk, eat food, and care for yourself as usual. You will likely need some help from friends and family when you first get home from the hospital. If additional supports are required, social work is available throughout the hospital.

You may need help with:

- Driving
- Making meals
- Laundry
- Cleaning
- Paying bills
- Caring for pets
- Watering plants
- Bathing and self-care

Fill your freezer and cupboards with easy-to-prepare meals so that when you return home, you will not have to go to the grocery store.

If you smoke, we strongly suggest that you stop smoking completely for 3 weeks before your surgery. This will reduce the risk of lung problems and wound infections afterwards. There are many resources available to help you. Talk to your doctor, nurse or pharmacist if you would like information to help you quit smoking.



Remember...

If you stop smoking 3 weeks before your surgery, this can decrease any breathing problems, increase your healing, and decrease any infection after surgery.

Talk to you doctor or nurse about quitting smoking!



How Long Will I Be in the Hospital?

If you are having colon surgery and you do not have any problems after your procedure, you may go home 3 days after your surgery. The average stay can be 3 to 5 days, depending on your progress.

Things to Bring to the Hospital

- This booklet and a pen
- OHIP card, hospital card, and insurance information (if you were told to do so)
- A bathrobe and loose comfortable clothing
- A credit card (if you want television in your room)
- Non-slip slippers or shoes
- Earplugs (if you wish)
- Reading glasses in a case labelled with your name
- Magazines or books to read

- Personal hygiene items like a toothbrush, toothpaste, hair brush, mouthwash, deodorant, lip balm and hand cream (non-scented)
- A cane, crutch or a walker if you use these for walking. Label them with your name
- A sleep apnea machine if you use it for sleeping. Label it with your name
- Non-perishable, easily digestible food like cookies, crackers, cereal or pudding cups. Do not bring food that needs to be refrigerated as it will spoil
- Two packs of chewing gum. Chewing gum will help you recover after your colorectal surgery

Things to Leave at Home:



- Large amounts of money
- Valuables (jewelry, including rings)
- Medication (unless instructed to bring in)
- Remove all nail polish
- Remove all body piercings & jewelry

Your Pre-Admission Clinic Visit

You will be seen in a pre-admission clinic before your surgery. This is a place where information is shared: we will learn more about your health and you will learn more about your surgery. You will be seen by a nurse and *possibly* by an anesthesiologist

(doctor) or other health care professionals if needed. *This may be done in one visit or two separate visits (one with the nurse, and one with the doctor).*

A nurse will go over the following with you:

- **Medications:** Your past medical history and current medications (please bring a list of meds and know your medical history)
- **Bowel preparation:** Your nurse will help you learn how to clear out your bowel before your surgery if you are required to do so
- **Body cleansing:** Do not remove any body hair for two weeks before your surgery (no waxing, shaving or clipping) because it can increase your risk of infection. Remove all jewelry (wedding rings) and piercings
- **Diet:** When you should stop eating and drinking before your surgery and what and when you can eat after surgery
- **Activity level:** How much you should be moving around after your surgery
- **Going home after surgery:** You will be asked about your home and any supports you already have in place (family, friends). This will help to plan for your return home with the services you may need
- **Your surgery:** preoperative care, postoperative care, and care at home once discharge

Your Pre-Admission Clinic Visit

An anesthesiologist *may* go over the following with you at your visit:

- How you will be put to sleep for your surgery
- Your options for pain management
- Any health concerns that may impede surgery
- Your bloodwork
- Other medical tests
- A brief physical assessment of your airway

Getting Yourself Prepared

Your bowel and skin require preparation for surgery. Please see the information below.

Bowel Preparation

For some bowel surgeries, a bowel preparation kit and/or an antibiotic may be ordered.

If a bowel preparation is required, follow the diet below.

Day before the surgery:

BREAKFAST – clear fluids only (no solid food)

LUNCH – clear fluids

SUPPER – clear fluids

You should be having clear, light brown liquid bowel movements. This ensures your bowel is adequately prepared and ready for surgery.

Skin/Body Preparation

Skin preparation is important to avoid infection. Please follow these instructions regarding skin preparation:

1. Take a shower the evening before surgery and again on the morning of your surgery
2. Do NOT shave the operative area. *If* shaving is needed it will be done at the hospital.
3. Remove all jewelry and piercings
4. Ensure no body creams, lotions, or powders are on the skin
5. Refrain from scented products; *however*, please wear deodorant
6. Wear loose comfortable clothing that is easy to apply and remove

Remember...

Shaving before surgery can increase your chance of getting an infection. If hair needs to be removed for your surgery, a clipper will be used once you get to the hospital.

Do not remove any body hair before your surgery.

All metal and appliances need to be removed before surgery. This includes, but is not limited to, wedding rings, piercings, watches, hair clips, elastics with metal, dentures or partial plates, and hearing aids

Remove all metal and jewelry before coming in for surgery



Your Surgical Experience

What Do I Eat Before Surgery?

You can eat solid foods until 12 midnight the night before your surgery unless you had bowel prep. If you had bowel prep, please follow the instructions that were given to you with the prep.

- You can drink clear high carbohydrate liquids up to 3 hours before you arrive to the hospital
- A clear liquid is any liquid that you can see through (see examples below)
- Milk and orange juice *are NOT* clear fluids and should not be consumed

High carbohydrate (sugary) drinks before your surgery

A drink that is high in carbohydrates has a lot of sugar. It is important to have sugary drinks before your surgery because it will help you feel stronger after your surgery and recover more quickly.

- Drink up to 3 glasses (800 mL) of a high carbohydrate drink at bedtime the night before surgery.
- Drink 1.5 glasses (400 mL) up to 3 hours before you arrive at the hospital

Clear fluid examples:

- Water
- Apple juice
- Clear soup broth
- Jello
- Gingerale/Sprite



Apple Juice



White Cranberry Juice



Iced Tea

Immediately After Your Surgery

In the recovery room, you MAY have:

- An intravenous (IV) drip to give you fluid and medicine
- Pain medicine: either an epidural or IV pain medicine
- A nurse will ask about your pain level. Please tell the nurse if your pain changes or gets worse
- Oxygen through an oxygen face mask
- A catheter to drain urine out of your bladder
- Your vital signs checked very often (heart rate, blood pressure)
- Your nurse checks your bandage (dressing)

You will leave the recovery room and go to your room when the nurse and doctors are sure you are awake, breathing properly, and that your pain is well managed.



Once in your room:

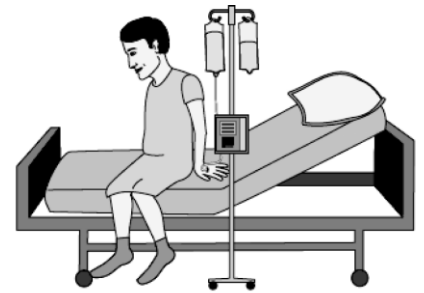
- The nurses will get you into your bed and show you the call bell. This is how you will reach your nurse if needed.
- The nurses will continue to check vital signs, assess pain, and check your dressing.

- The nurses will inform your family that you are back from surgery.
- You will begin to perform leg exercises and deep breathing exercises (see page 17 for leg exercises and page 19 for breathing exercises).

Drinking: as soon as you are in your room after surgery, you can have sips of clear fluids.

You may not feel hungry and that's ok. Only take small sips if you feel up to it.

Catheters: a catheter will be put into your bladder during surgery to drain your urine. Your catheter will be removed when your urinary output is adequate. Catheters should be removed as soon as possible. Early removal of a catheter decreases the chance of a bladder infection. It also helps you move around more easily.



Evening of Surgery: Time to Move Around You Might Feel...

1) Nervous about getting up

This is a normal feeling. Your nurse will first help you dangle your legs over the side of the bed, when you are ready, the nurse will help you slowly stand and eventually walk with your IV pole and catheter.

2) Tired

This is normal because your body is trying to heal. After your walks, it is important to rest.

Why is moving around after surgery important?

Lying in bed without moving after surgery can cause many complications like pneumonia, blood clots, and muscle weakness. It may also cause an ileus, which is essentially when your bowel stops working. These complications slow down your recovery. Walking and chewing gum will help the bowel work faster, speed your recovery, and make you feel better!

Your Activities

With the help from nurses, physiotherapists, volunteers, or your family members, you are expected to:

- Sit up in a chair for all of your meals
- Be out of bed, either walking or sitting frequently, for increasing periods of time
- Do your deep breathing exercises
- Do your leg exercises



Remember...

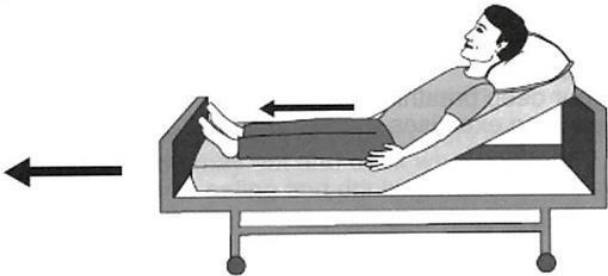
If you move around as much as you can after your surgery, this will help reduce the chance of a blood clot in your legs or lungs.

Do your leg exercises every hour you are awake and walk!

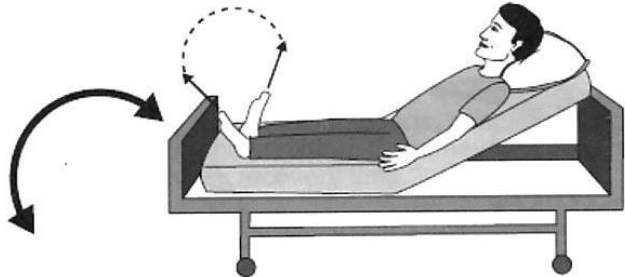


Leg Exercises

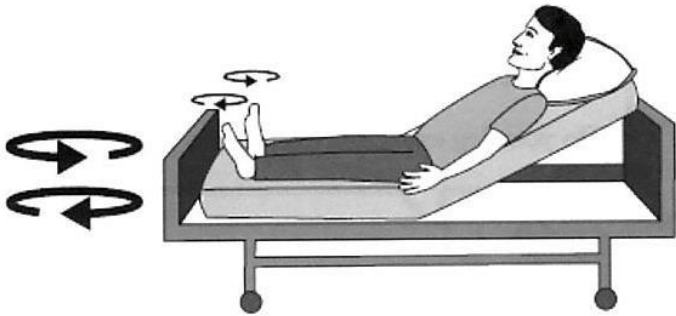
Leg exercises include ankle pumps, ankle rotations, and toe wiggling. Perform these exercises every hour while awake and lying in bed. They help increase mobility and prevent blood clots.



Stretch your legs out straight



Wiggle your toes and bend your feet up and down

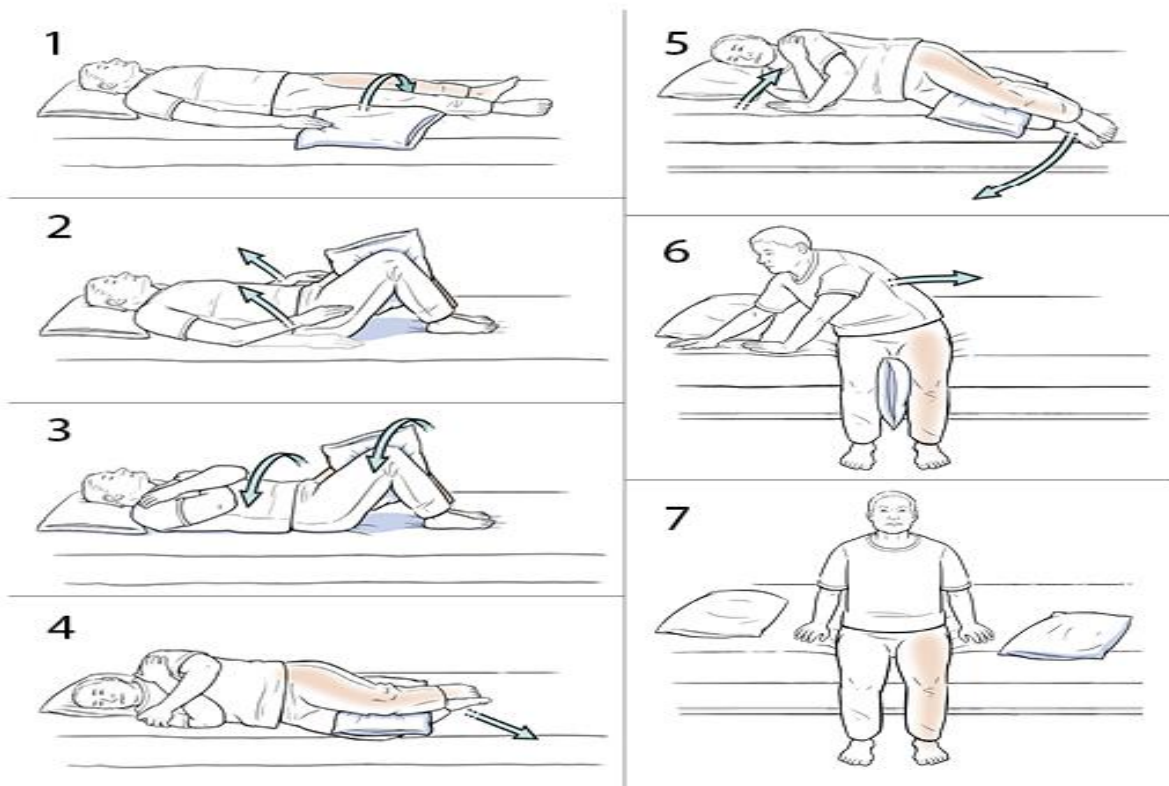


Wiggle your toes and rotate your ankles

Getting Out of Bed

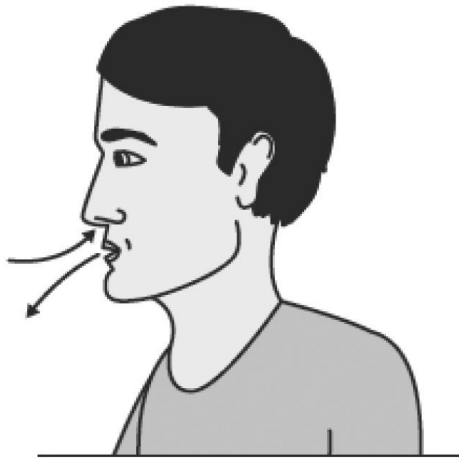
Make sure a nurse is with you the first couple times you get out of bed. The correct way to get out of bed following surgery is described below with diagrams to illustrate the process:

- Roll onto your side and bring your knees up towards your abdomen
- Place your upper hand on the bed below your elbow
- Raise your upper body off the bed by pushing down on the bed with your hand
- Swing your feet and legs over the edge of the bed and bring your body to a sitting position
- Once in the sitting position, take a few breaths and ensure your balance is good before you attempt to stand
- Slide your bottom to the edge of the bed
- Stand up keeping your back as straight as possible
- When getting back into the bed, reverse the process
- Refer to the following diagram



Deep Breathing and Coughing

Performing breathing exercises will help prevent lung infections and restore your airway. Perform them every hour you are awake.



Breathe in slowly and deeply through your nose, and then breathe out slowly through your mouth with your lips pursed. Repeat 10 times every hour.



While holding a pillow against your abdomen and supporting your incision, give 3 strong coughs. If your cough is wet, try to cough more and clear the phlegm.

Remember...

Breathing exercises and coughing help to prevent pneumonia and other infections in your lungs.

Remember to do your breathing exercises every hour you are awake!

Do your leg exercises as well!



Nutrition After Surgery

Adequate nutrition after surgery helps promote cell growth and repair which supports recovery after surgery. Only eat when you feel hungry, don't force yourself. Taking small sips of sugary fluids will give your body what it needs until you have an appetite.

What You Will Be Eating While in Hospital

You will be given your first meal the day after your surgery.

You can eat as much or as little of whatever you want. You should not push yourself. Eat only if you are hungry or feel ready. Your family can bring you food if you prefer but check with your nurse first about what is right for you. You can bring non-perishable foods to eat when you are hungry. After your surgery you will gradually progress from drinking fluids to a soft and easy-to-digest diet. The purpose of this is to allow time for the bowel to heal. Unless you have been given specific diet instructions, you should be able to resume a regular diet with no restrictions in a few weeks.

You should chew gum starting the day after your surgery. You should chew one stick of gum for at least 5 minutes 3 times per day. Do not chew more than three pieces of gum per day. Chewing too much gum isn't good for your recovery.

Remember...

Chewing gum after surgery will help you to pass gas, which is a sign that your bowels are working. Again, if you cannot chew gum for any reason, talk to your surgeon or nurse.



Tell the nurse if you are sick to your stomach (nauseous) or if you feel bloated during or after eating. If so, you should not eat.

What You Can Eat at Home

If you are cooking for yourself, look for quick and convenient meals (frozen dinners, canned soups/stews, etc.). Ask about meal services available in your community.

Eat a soft diet. This is a diet that is easy to chew and foods that can be mashed with a fork. By cooking foods until they are soft, chewing well, and eating slowly, you can provide some bowel rest while still meeting your nutritional needs.

The following table includes suggestions of food to choose for your diet and foods to avoid or limit:

	Foods to Choose	Foods to Avoid/Limit for 4-6 weeks
Fruits	Soft, peeled, or canned fruits e.g. banana, melon, applesauce, orange sections, peaches, cooked berries.	Dried fruits (raisins), pineapple, grapes (unless peeled), cranberries, fruits with skins, no seeds.
Vegetables	Cooked and soft vegetables that are easily mashed with a fork e.g. potatoes, squash, carrots, green beans, turnip, vegetable soup.	Raw and stringy vegetables e.g. celery, cabbage, spinach, lettuce, raw onion, raw carrot, corn, cucumber skin, green pepper, olives, mushrooms, pears, pickles spinach, seeds.
Meat & Other Proteins	All meat, fish, poultry, casseroles e.g. (shepherds pie, macaroni and cheese), smooth peanut butter.	Tough cuts of meat, skin of chicken or turkey, casing of sausage and other meats.
Dairy Products	All: milk, milk drinks, cheese, puddings, ice cream (without nuts or dried fruit)	
Breads & Cereals	All as tolerated (*see Fibre below)	Avoid breads and cereals with added nuts, dried fruits (e.g. raisin bran, granola, banana nut loaf, raisin muffins), popcorn, coconut

***FIBRE** – Whole wheat breads and cereals provide fibre, which helps with bowel regularity. **Fibre should be added/increased gradually** to avoid bloating, cramping, gas, and/or diarrhea, while increasing fluid intake.

Smooth peanut butter is a good source of protein and can be eaten soon after surgery. Whole nuts and seeds can generally be introduced after the surgical site has healed (3-5 weeks).

If you are experiencing gas:

- Avoid legumes (dried beans, peas, lentils, etc.)
- Avoid gassy vegetables (or cook them very well) such as broccoli, Brussel sprouts, cabbage, cauliflower, onion, turnip, peppers, chives, pickles, sauerkraut
- Avoid carbonated drinks (soft drinks, beer)
- Do not drink with a straw
- Avoid chewing gum continuously
- Chew food well, eat smaller meals more often
- Avoid eggs, melon, alcohol and fried foods

If you are experiencing constipation:

- Drink at least 6-8 cups of fluid per day
- Limit caffeinated drinks
- Gradually increase your intake of soft fruits (applesauce, stewed prunes, canned fruit), and fibre-rich breads and cereals (brown bread, bran cereals)
- Increase your activity levels – walking/gentle exercise



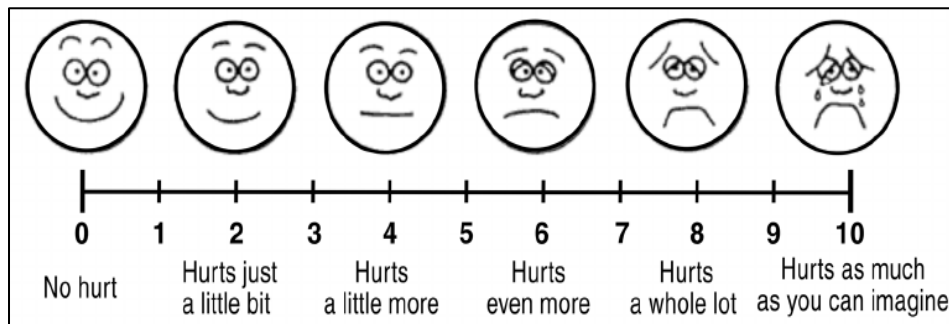
Pain

After surgery some pain is anticipated and normal. The goal is to control your pain so you can move more easily (walking & sitting up are important to your recovery), sleep better, and breathe/cough more easily.

When do I treat my pain?

A pain rating scale can help you decide when to do something to relieve your pain. You can use a scale from 0 to 10 to determine how much pain you are having.

You may find that your pain is less when you are resting and more when you are moving. If your pain is 4 (moderate) or more, or stopping you from moving, you should treat your pain.



Medication to Help Decrease Pain

These are different medicines you can take after surgery to help manage your pain. There are also different ways of receiving your medicine. You and your doctors will discuss your different options before surgery and together you will decide which options are best for you. Sometimes, you may receive more than one type of medicine and more than one way of receiving it.

Your Checklist for Going Home

- You should have no nausea or vomiting
- You should be able to eat and drink as usual
- You should be passing gas
- You DO NOT need to have a bowel movement before you go home
- You should be passing your urine well
- You should be able to get in and out of bed on your own
- You should be walking like you did before surgery. You may not be able to walk far and that is fine
- If you have stairs in your home, you should have enough strength and energy to go up and down them.
- You should have everything organized at home (e.g. food to eat)
- All your questions or concerns about your ongoing recovery at home have been answered by your healthcare team

Before you Leave, You Need to Know

- About the medicine you were on before your surgery and any new medicine you will need to take now
- If you need a prescription for any pain medicine, or other medicine you may need to take at home
- About what to eat and drink
- How to take care of your surgical incision (cut)
- When to go back to regular activities (e.g. driving, exercise, lifting)
- What symptoms are considered medical emergencies and what signs to watch for



Remember...

Passing gas is a better sign that your gut is working than a bowel movement.

You do not have to have a bowel movement before you leave the hospital.

- Who is going to help take care of you once you are home? If you require home care services or any other items to help in your recovery at home such as a walker or bathroom equipment, you will need to be sure you have confirmation that this has been arranged for you
- Who to call if you have questions or concerns



At Home

What you cannot do

- Do not lift more than 10–15 pounds (e.g. one laundry bin or two small bags of groceries) for the first 4–6 weeks of surgery
- Do not do abdominal exercises, high intensity aerobic activities, or weight training for 4-6 weeks after surgery. Always check with your surgeon prior to exercise after surgery

What you can do

- When you get home, you should continue to be active (walk, participate in personal care, and socialize). Gradually increase your activity level over the next several weeks
- It is normal to feel tired after surgery. Listen to your body and take frequent rest breaks as needed throughout the day
- You can resume most normal activities once you are pain free, including sexual intercourse
- You may start to drive when you are no longer taking opioid pain medicine
- Your surgeon will tell you when you can return to work. This will depend on your recovery and your type of work. If you require notes for work or insurance please let the office know.
- You can shower or take a bath. You do not need to cover your surgical incision
- You might go home with staples in your skin that hold your surgical incision (cut) together. They are usually removed at your follow-up appointment. The nurse will give you your appointment when you are discharged.

Ask Friends and Family to Help With:

- Getting meals ready
- Grocery shopping
- House cleaning
- Laundry



Signs and Symptoms to Watch For

Call your surgeon or go to the **nearest emergency room** right away if you have any of the following symptoms:

- A fever (temperature greater than 38°C or 100°F), shakes, or chills
- You are vomiting, are bloated, or feeling nauseous all the time
- Redness, swelling, odor, pus, or increasing pain from your surgical incision (cut)
- Bright red blood from your anus
- Stomach pain that your medicine does not help
- You have not had a bowel movement after 7 days from your surgery
- Chest pain or shortness of breath
- Leg swelling or leg pain

My Follow-Up Appointment

The surgeon's office will call you with a follow-up appointment. This is usually 3-4 weeks once the pathology report is available.

Surgeon Contacts

Dr. El Fitori: 613-732-3675 ext. 6702

Dr. Haney, Dr. Williamson, Dr. Lee: 613-732-3675 ext. 7209

