

A Guide to Enhancing Your recovery After Bowel Surgery

**Bowel Resection Surgery**

🞏 Laparoscopic/Minimally Invasive Surgery (MIS)

🞏 Open Surgery

**Patient Information Booklet**

**Please bring this book to your admission to the Hospital and to all of your appointments**

**ERAS**

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For information call

Before your surgery:

Contact your surgeon’s office or Pre-Operative Assessment Clinic 613-721-2000 ext. 2920 between 8:00 a.m. to 4:00 p.m. Monday to Friday

After your surgery:

Contact your surgeon’s office

Introduction

Welcome to the Queensway Carleton Hospital.

You are being admitted for bowel surgery. The length of your hospital stay depends on your surgery. You can expect a stay of approximately 3-5 days. Your safety and complete recovery is our priority following your surgery. This booklet is intended to provide you with information to prepare you for your hospital stay and discharge.

Use this booklet to record appointment/surgery dates and times. Bring it to all your appointments and to your surgery.

The information in this booklet is for educational purposes. It is not intended to replace the advice or instructions of a healthcare professional. Contact your surgeon if you have any questions about your care.

This booklet is part of the Best Practices in General Surgery‘s (BPIGS) Enhanced Recovery after surgery (ERAS) program. The ERAS program includes surgeons, anesthesiologists, nurses, dietitians, and other allied health professionals. The goal of this program is to decrease post-operative complications and speed your recovery so you can go home sooner after surgery and to improve your overall satisfaction with the care you receive. This is accomplished by standardizing practices based on evidence.

**Your date of surgery is**

Call the Queensway Carleton Hospital Operating Room Scheduling Department the weekday (Monday to Friday) before surgery to determine the time of admission.

Call for your admission time on \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(date)

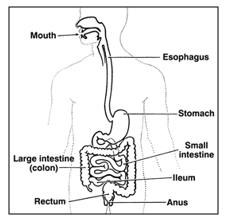
**The number to call is 613-721-4840 between 11:00 a.m. and 3:00 p.m.**

**What if I’m on a special diet?**

Tell the nurse if you have special dietary restrictions and if necessary, the nurse will contact the dietitian.

Your Condition and Your Surgery

# What is the Bowel?



When you eat, food passes from your mouth, through the esophagus into your stomach. From there it passes into the small bowel (small intestine) where nutrients are absorbed. What is left then goes to your large bowel (large intestine), which is about 6 feet long. This is where fluid is absorbed and stool (your bowel movement) is formed. The stool is then stored in your rectum, until it is passed out of your body through your anus.

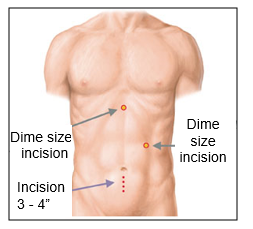
**What is Bowel Surgery?**

Bowel surgery (also known as colorectal surgery) is the removal of a diseased section of the bowel.

# Laparoscopic/Minimally Invasive Surgery (MIS)

During laparoscopic surgery the surgeon makes 4 to 6 small cuts (incisions) in your abdomen.

Your surgeon will use instruments and a camera to remove the diseased bowel. The healthy ends of your bowel will either be reconnected or a stoma (an opening on the outside of your abdomen for stool to leave your bowel and exit your body) will be created.



**Open Surgery**

During open surgery, the surgeon makes one 10 to 20 cm cut (incision) in your abdomen to remove the diseased bowel and reconnect the healthy ends of your bowel back together or create a stoma.

The following diagrams illustrate these procedures:

**Partial Colectomy**

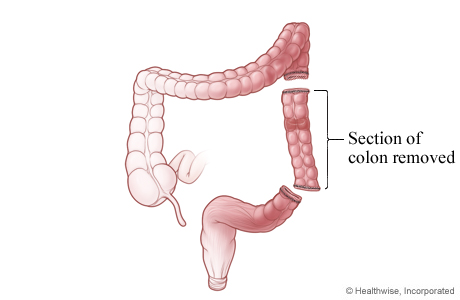
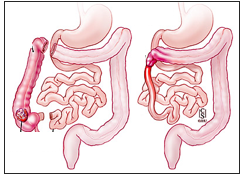
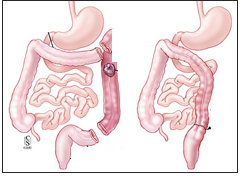


Image showing section of colon to be removed.

**Right Hemicolectomy**



**Left Hemicolectomy**



# Antibiotic Resistant Bacteria

**If you have ever been told you had or have an antibiotic resistant bacteria such as MRSA (Methicillin Resistant Staph Aureus)/ESBL (Extended Spectrum Beta-Lactamase producing bacteria), please tell the Pre-Operative Assessment Clinic (POAC) staff.**

Queensway Carleton Hospital is taking steps to prevent and control antibiotic resistant bacteria. These bacteria do not usually cause problems in healthy people, but can cause infections in people who have weakened immune systems or have had major surgery. If you have stayed overnight in a healthcare facility within the last year, you will be screened for resistant bacteria at the time of your pre-operative visit.

# Family contact

Please discuss and decide with your family who will be the primary contact person. This should be the only person to phone the hospital staff regarding your condition. This person can further contact the rest of your family and/or friends. This name will be written on the chart. Please let your family and friends know who this person is.

My family contact is:

Phone number:

Home:

Work:

Cell:

Patient recovery can be enhanced by visits from family members, but please remember your recovery is also aided by plenty of rest. Please be courteous and have consideration for your fellow patients regarding the number of visitors coming to see you. Patients and their families are asked to adhere to the visiting hours and to limit visitors to two at the bedside at one time.

Preparations before Surgery

# Health tips before surgery

**Notify your surgeon before your surgery if you develop a cold or any other illness**

This is important for your wellbeing and the safety of others because there is a risk to everyone if you go into surgery with an infectious process (cold or flu). Should your surgery be delayed, every effort will be made to have you rescheduled as soon as possible.

It is also important to inform your surgeon if you have any burns, rashes or skin irritation, which may need to be treated before your surgery.

If you need to speak to a pre-operative nurse **BEFORE** surgery you may call 613-721-2000, extension 2920 between 8:00 a.m. to 4:00 p.m., Monday to Friday (except holidays).

**We advise you to purchase two scrub brushes of Chlorhexidine 4% soap. They can be purchased at the QCH Gift Box on the main floor next to the front lobby.**

QCH Gift Box Hours

Monday to Friday 9 a.m. to 8 p.m.

Weekends 12 p.m. to 4 p.m.

# What should I bring to the hospital?

Please bring:

* A housecoat or dressing gown, pajamas and slippers.
* Toothbrush, toothpaste, soap, shampoo, deodorant, shaving cream, razor, Kleenex™ or facial tissue. These items are not supplied by the hospital.
* Reusable water bottle.
* All your current medications in proper bottles, including non-prescription medication (including creams, eye drops, inhalers/puffers, vitamins, patches, and herbal products).
* A list of allergies including type of reactions.
* 2 packs of chewing gum. Chewing gum may promote digestive function.

# Diet

If your surgeon has ordered you to have a mechanical bowel preparation you will need to adjust your diet two days before your surgery. Your mechanical bowel preparation is to start **two days before** your surgery.

Your nurse will review these instructions with you. (*please refer to Bowel Preparation for Surgery PATS 1437)*

If your surgeon has not ordered a mechanical bowel preparation you may have solid food up until the evening before your surgery. Your nurse will review these instructions with you.

You must follow these rules if you are to have your surgery on the scheduled date:

* **Do not eat any solid food after midnight the night before your surgery.**
* **If you are thirsty, you may drink clear fluids apple juice, water or ginger-ale™ until you leave to come to the hospital.**
* **Please drink one cup (250 mL) 8 ounces clear fluid e.g. apple juice, water or ginger-ale™, before leaving to come to hospital.**
* You should take your regular prescription medications (no vitamins or herbal products) with water the morning of surgery as advised by the nurse or doctor you spoke with in POAC.
* You **must** stoptaking all supplements **except** vitamin D, calcium, or iron/iron supplements one week before surgery.
* If you are taking Aspirin or other blood thinners, please inform your surgeon or nurse. You will be given specific instructions.
* If you are a smoker, try to stop smoking at least 24 hours before your surgery. We can provide you with smoking cessation support to prevent nicotine withdrawal during your hospitalization.
* No alcohol for at least 24 hours before surgery.
* Have a bath or shower before coming to the hospital.

**Skin preparation:**  Stop shaving in the operative area one week (7 days) before your surgery date. Shaving can cause tiny nicks in the skin that may allow germs to enter your body and cause an infection. **Do not use bath scents, powders or body lotions.**

**a body that is shaded from the neck down. 
**

Skin preparation:

1. The night before surgery bath or shower and wash your entire body using the Chlorhexidine soap. Pat yourself dry with a fresh clean soft towel, put on clean pajamas or clothes and put freshly laundered bed linens on your bed if you are able.
2. The morning of surgery repeat your bath or shower using Chlorhexidine 4% soap sponges.

**(Chlorhexidine 4% soap sponges are available at the QCH Gift Box)**

* On the day of surgery do not wear any deodorant, lotions, powders, nail polish or contact lenses. **DO NOT WEAR ANY SCENTED PRODUCTS AS THE HOSPITAL HAS A SCENT FREE POLICY.**
* Remove all jewellery, including body piercing jewellery.
* Do not bring any valuables to the hospital (credit cards, money or jewellery). We do not take responsibility for lost or stolen articles.
* Bring only the minimum personal belongings (clothing, etc.) with you to Hospital. Patient rooms are small and there is limited storage.
* Arrange for someone to drive you to the Hospital the day of surgery and home on your discharge day.

**What happens the day of your surgery?**

* Report to the Patient Registration at the main entrance of the hospital by the front parking lot. Please bring your health card and any medications that you are taking (in the proper bottles), including patches, creams, sprays, eye/ear drops, inhalers/puffers, vitamins, and herbals.
* From Patient Registration you will go to the Day Surgery Unit (DSU).
* After you arrive at the Day Surgery Unit (DSU) you will change into a hospital gown. Your clothes will be put into a bag for transfer later to your room.
* You may have one person stay with you in DSU until your surgery.
* The nurse will complete your paperwork and prepare you for your surgery.
* The nurse, anesthesia assistant, or anesthesiologist will start an intravenous by inserting a small needle into your hand or arm. Prior to the surgery you will receive an intravenous antibiotic.
* Your surgeon and your anesthetist will come and talk to you before your surgery.
* Your nurse or ward assistant will take you to the Operating Room.
* Your operation can last from 3 to 5 hours.
* After your surgery, you will go the Post Anesthetic Care Unit (PACU) for monitoring.
* The nurse will check your blood pressure, pulse and operative site frequently.
* The nurse will check the circulation, sensation and movement of both legs. If you have an epidural for pain management, your legs may feel heavy.
* You may have oxygen provided.
* If you feel any pain or nausea, inform the nurse. You will be given medication to help this.
* You may be drowsy after the surgery, as you become more alert we will encourage you to do deep breathing and ankle exercises. These exercises will help to prevent complications.
* You will be transferred to your room when the nurse determines it is safe to move you.
* You will then be transferred to your room in your bed. Your family will be able to visit you after you are admitted to your room. They can also bring any extra personal toiletries and clothing at this time.

After surgery

# Deep Vein Thrombosis (DVT)

Deep Vein Thrombosis (DVT) is a blood clot in a deep vein and is a major health concern that should be discussed with your physician.

You may be at risk for developing a DVT for any of the following reasons:

* Recent surgery
* Immobility
* Previous DVT
* Problems with circulation
* Obesity
* Increasing age
* Acute medical illness

DVT’s most commonly occur in the legs, usually the calf. Signs and symptoms to watch for include calf pain or swelling, redness or discolouration, a knot in the calf that you can feel and that is warm to touch, fever, shortness of breath, rapid heart rate or chest pain.

If you experience any of these symptoms go to the Emergency Department or call 911 for immediate assistance.

# Minimally Invasive Surgery

You will have an (intravenous) IV in your arm to give you fluids until you are able to drink and eat well.

You will have several small incisions on your abdomen. You may have a small dressing over one or several of the incisions if they are draining. The dressing(s) can be removed 3 days after surgery. The incisions will be closed by sutures or clips. Tapes (Steri-strips™) may also cover your incision, and will last approximately 5 -7 days before they fall off or can be removed.

Drain – A small drainage tube may be inserted at the time of surgery and used to drain excess fluid that sometimes collects around the area of the surgery. It will be in place for a couple of days before being removed by the nurse.

Urinary catheter – You may have a drainage tube in your bladder for 1 to 3 days after your surgery. The catheter will be inserted during the surgery and removed by the nurse on the unit.

# Open Surgery

You will have an (intravenous) IV in your arm to give you fluids until you are able to drink and eat well.

You will have an abdominal incision. A dressing is used to cover the incision. Staples are usually removed 10 to 14 days after the surgery. Your nurse/surgeon will advise you on when your staples will be removed and where your staples will be removed. For your comfort you may want to keep a clean, dry gauze dressing over your staples. If there is no drainage from your incision a clean dry dressing is not indicated.

Drain – A small drainage tube may be inserted at the time of surgery and is used to drain excess fluid that collects in the area of the surgery. It will be in place for a couple of days before being removed by the nurse.

Urinary catheter – You will have a drainage tube in your bladder for 1 - 3 days after your surgery. The catheter is inserted during the surgery and removed by the nurse on the unit.

# Ankle and deep breathing exercises

**Ankle exercises**

These exercises help the blood circulate in your legs while you are less active. Point your toes toward your head, then towards the foot of the bed. Make your feet go around in circles 5 times. This should be done every hour while you are awake.

**Deep breathing exercises**

Air enters the nose and mouth and travels into the lungs. This is where oxygen moves into the bloodstream and is carried to the cells. Often surgical procedures, anesthesia, pain and not moving around as much after surgery cause us to want to take smaller breaths. Doing deep breathing and coughing exercises after surgery will help keep your lungs healthy. Deep breathing exercises will prevent pooling of secretions in your lungs. Deep breathing exerciseswork best when you are sitting up in a chair or on the side of the bed. Follow these instructions:

* Support your incision with a small blanket or pillow.
* Take a deep breath in through your nose. Hold for five (5) seconds.
* Breathe out through your mouth.
* Repeat this exercise ten (10) times each hour while you are awake and until your activity level increases.

Coughing exercises help to loosen any secretions that may be in your lungs and should be done after your first five (5) deep breaths. To produce an effective cough:

* Support your incision with a small blanket or pillow.
* Take a deep breath and cough.

# Protecting your skin from pressure injuries

A pressure injury is a sore (bed sore) that develops from sitting or lying in the same position for long periods of time or from sliding down in the bed. It is most often seen over the tailbone and heels. Some of the key things that can be done to help prevent these sores are: avoid sitting in bed with the head of the bed higher than 30 degrees for long periods of time, reposition yourself or ask for help to do so at least every 2 hours, and use pillows under your legs, to avoid having your heels directly on the bed.

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# Moving and positioning

It is important to move and reposition yourself while you are in bed. Move every 2 hours while awake.

* Support your incision with a small blanket or pillow.
* Bend your knees and roll from your non-operative side to your back.

# Getting out of bed

Your nurse will get you out of bed as soon as you are able. Walking and exercise are important to your recovery. For safety reasons your bed rails will remain raised for the first 24 hours after surgery. The nurse call-button will be within your reach so you can push the button if you need assistance

**How do I get out of bed?**

The correct way to get out of bed following surgery is described below with diagrams to illustrate the process:

Lying on your side on a bed

* Roll onto your side and bring your knees up towards your abdomen.
* Place your upper hand on the bed below your elbow.

lying on your side with your weight on your bent arm.

* Raise your upper body off the bed by pushing down on the bed with your hand.

Sitting on bed 

* Swing your feet and legs over the edge of the bed and bring your body to a sitting position.
* Once in a 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 bed, reverse the process.

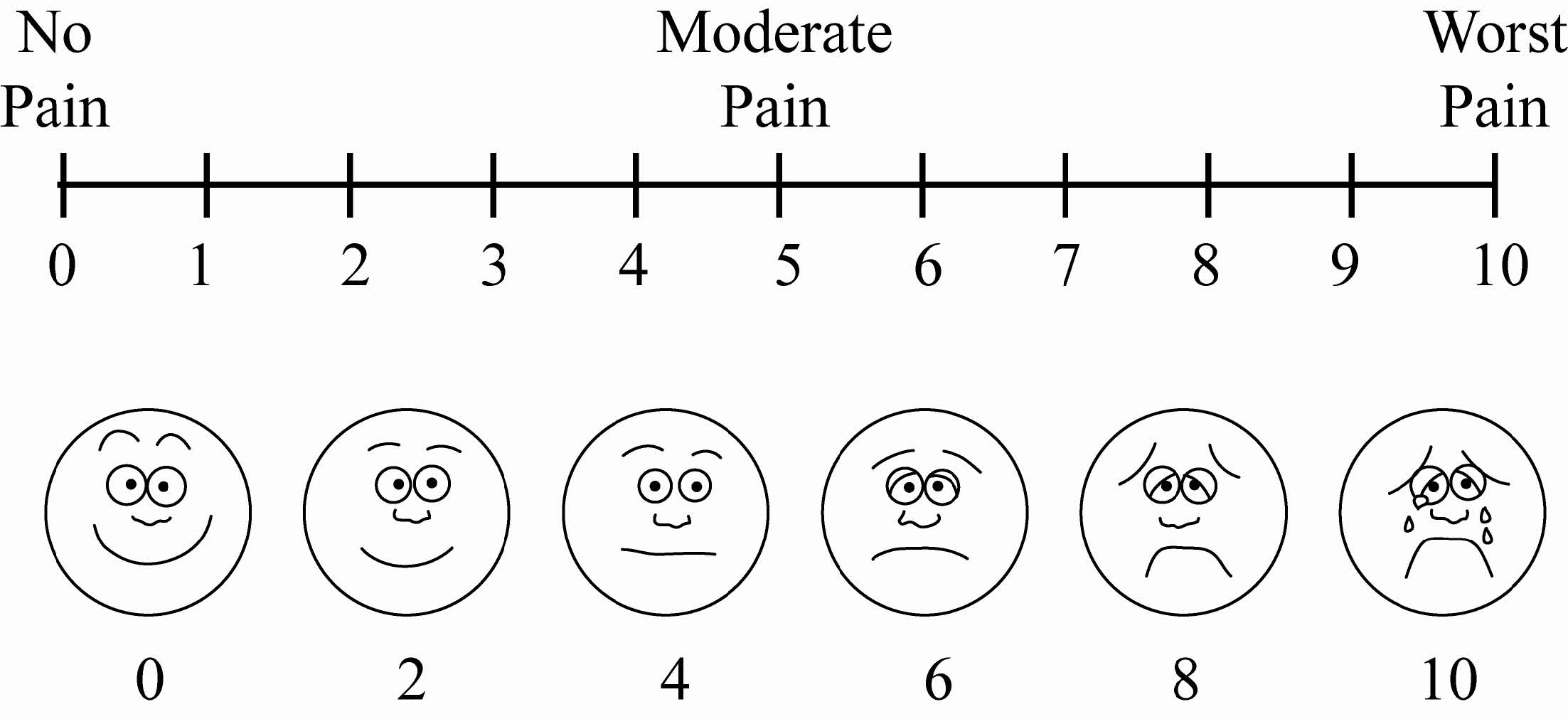
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# Pain management

Pain management is very important for a quick and speedy recovery. Pain medication is given as often as required in order to make you comfortable enough so that you will be able to deep breath and move with minimal discomfort. Inform your nurse if you are uncomfortable or having pain.

**Pain scale ruler**

Your nurse will ask you to rate your pain on either the number or FACES scale (see below). Pain is rated from 0 (no pain) to 10 (worst pain).



You will be discharged home with a prescription for medication to manage your pain.

If your pain medication seems to stop working, call your nurse to check and assess your level of pain. If you are still uncomfortable and the nurse has checked and assessed your pain level your nurse will notify your doctor and your dose will be adjusted as required.

For additional information please refer to *Pain Management after Surgery booklet PATS 509.*

# Diet

* After your surgery, your body needs foods with extra calories and protein to help you heal.
* Drinking and eating as soon as you can after surgery helps your bowels return to working normally.
* You will gradually progress from drinking fluids to a post-surgical or regular diet by the first or second day after surgery.

If you have an ileostomy you will be on a low residue diet. Most surgeries involving the bowel do not require a special diet. You should return to your normal diet as soon as possible after surgery.

Day 0 – Day of surgery:

* Drink clear liquids
* When you are ready, drink your protein drink (Ensure, Protein Max®)

Day 1:

* Eat regular foods
* Drink liquids including your protein drink (Ensure, Protein Max®)

Day 2:

* Eat regular foods
* Drink liquids including your protein drink (Ensure, Protein Max®)
* Until your appetite is back to normal, try and eat as much as you can at mealtimes. It may be helpful to eat smaller more frequent meals (4 to 6 meals spaced evenly thought the day) to increase intake. You can save items from your tray for snacks between meals.
* Take your time. Eat slowly and chew your food well. This will help you to digest your good better.
* It is important to drink plenty of liquids.

**Ostomy**

You will meet with a nurse specialist in Wound, Ostomy, and Continence care after surgery to assist with answering any questions you may have about your new bowel diversion. Prior to discharge, you will be given a kit with some ostomy supplies to get you started. After discharge you will have home care nurses come to your house to teach you more about your ostomy.

Preparing for Discharge

When you are discharged from Hospital, you may need help at home. It is best to make arrangements for housekeeping before being admitted to Hospital. Discuss your discharge plans with your nurse. You may also need a nurse to visit you at home.

If you have had a laparoscopic surgery (minimally invasive) with or without an ostomy you may go home on day 3. If you have had an open bowel surgery without or without an ostomy you may go home on day 4, with an ostomy Day 5. You are responsible for your own transportation home. You may require help to do your shopping and house chores from a family member or friend for 4 to 6 weeks after surgery. **Arrangements for convalescence care, if desired, should be made before you are admitted to the hospital.** The social worker is available through the Social Work Office, 613-721-2000 ext. 3753 or 3771, to help with the arrangements if necessary.

**Discharge** **Planning**

You may have a number of concerns related to how you will manage once you return home. If you have such concerns, or any others, you may request to see a social worker as part of your discharge plan. Please let your nurse know.

Arrange for someone to pick you up in the morning on the day of discharge. You will receive a prescription for medication and a follow-up appointment to see your surgeon in about 2 to 3 weeks.

Be sure you understand about:

* Activity restrictions
* Medication you are to take
* Incision care
* Diet
* When to call your doctor
* Follow-up appointment
* Ostomy care, if applicable

After Discharge

# Activity

* Take frequent rest periods as necessary. Let your body be your guide.
* Do light activities for 2 weeks. Avoid strenuous exercise including heavy lifting, lifting grocery bags, snow shoveling, or pushing a lawn mower until you have been seen by your doctor/surgeon on your follow- up visit.
* Increase your walking distance each day.
* Resume your usual activities gradually over 1 to 2 weeks including sexual intercourse. Discuss any specific concerns with your doctor/surgeon regarding sexual activity.
* Do not drive a vehicle if you are taking narcotics. You may resume driving when you feel you are physically comfortable and safe with this activity. You may want to use a small cushion or pillow as padding between the operative site and the seat belt.

# Medications

* Take your pain medication as required (e.g. before going to bed, or prior to activity). It is normal to experience some incision discomfort for a period of time after discharge.
* Add water-soluble fibre to your diet to avoid constipation from pain medication e.g. bran, whole grain, fruit. If constipation is a problem, you may take a mild laxative (e.g. Metamucil™).
* Do not drive a vehicle if you are taking narcotics (e.g. Tramadol, HYDROmorphone™, Percocet™).

# Incision Care

* Swelling or bruising may appear around the incision. This may continue for several weeks.
* You may have a shower. Once you have finished your shower, pat the Steri-strips™ dry with a **fresh, clean towel.**

# Diet

You can eat anything you want, unless your surgeon, nurse or dietitian tells you not to.

Your bowel habits might change after surgery. You might have loose stools, become constipated, or go to the bathroom more often. Over time, your bowel habits can return to normal.

Some foods might upset your stomach or cause loose bowel movements at first. If this happens, stop eating those foods for a few weeks. Start trying them one at a time when you feel better. Trial and error will help you to determine what or if any foods disagree with you.

**NUTRITION GUIDELINES:**

* Ensure you are consuming regular meals and snacks to promote normal bowel habits.
* If you find you get full quickly, it may be helpful to eat smaller, more frequent meals (4 to 6 meals spaced evenly throughout the day) to increase intake.
* You can also try high protein; high calorie shakes or commercial supplements like Ensure® or Boost® to supplement your intake
* Take small mouthfuls and make sure to chew your food well. This will help you digest your food better.
* Have protein with each meal and snack. Protein will help your body heal and help prevent infections. Good sources of protein are:
* Lean meat, fish or poultry
* Cheese, yogurt and milk
* Tofu and soy-based drinks
* Eggs
* Aim to drink 8-10 cups (2-2.5 litres) of fluids per day to make sure that you are well hydrated and to help prevent constipation unless otherwise directed.

**Post-Surgical (Transitional Light) Diet**

Most surgeries that involve the bowel do not require a special diet. Despite this, some people still feel uneasy about eating after surgery and are nervous that they may not tolerate regular foods. If you are feeling this way the following diet may help you transition back to your regular diet. Remember to return to your regular diet as soon as possible. These recommendations are for **short term use only** (about 2-3 weeks after surgery).

**POST SURGICAL (TRANSITIONAL LIGHT) DIET**

|  |  |  |
| --- | --- | --- |
| **Food Group** | **Foods Tolerated Well** | **Foods Not Tolerated Well** |
| Grain Products | Soft breads or bagels  Hot cereals (oatmeal or cream of wheat)  Dry cereal allowed to soften in milk  Pasta  Rice | Breads with nuts, seeds or dried fruit  Cereals with nuts, seeds or dried fruit  Whole grain products if you are experiencing diarrhea  High fat baked goods |
| Fruits and Vegetables | Tender cooked vegetables  Soft fresh fruit  Fruit and vegetable juices  Canned fruit may be better tolerated than fresh | Raw vegetables  Skins and seeds of fruits and vegetables  Dried fruit  High acid fruit and vegetables and their juices – orange juice, tomato juice, tomato products |
| Milk and Alternatives | All milk  Soy, rice, almond, oat milk  Yogurt  Cheeses  Soft cheese products, cottage cheese  Ice cream  Smoothies and shakes | Yogurts or ice cream containing fruits with seeds or skins |
| Meat and Alternatives | Tender/lean cuts of chicken, beef, fish, pork, turkey  Ground meats  Eggs  Smooth nut/seed butters  Tofu | Tough fibrous meats  Nuts and seeds  Chunky nut butters  Meat with casings (hot dogs, sausages)  Legumes (dried beans, peas, lentils) |
| Other | Soups and stews  Sherbet  Honey  Jelly  Oral nutrition supplements (Ensure, Boost, etc) | Fried foods  Spicy foods  Crunchy chips  Popcorn |

# When should I call the doctor or go to the nearest Emergency Department?

Contact your family doctor/surgeon or go to the nearest Emergency Department if you experience:

* Elevated temperature (38ºC or 100.4ºF) and/or chills lasting more than 24 hours
* Chills/perspiration
* Increased or new discomfort
* Redness, swelling or drainage around the incision or incision separation
* Nausea, vomiting, constipation, abdominal swelling or bloody stools
* New or unexplained symptoms develop
* Sudden onset of severe chest pain, difficulty breathing or shortness of breath (CALL 911)

Care Plan Patient Version

Your hospital stay will follow a Care Plan. The patient versions of the Bowel Resection Surgery (MIS and Open) Care Plan have been prepared so that you, your family and all members of your healthcare team know your plan of care including what tests, treatments and diet you require as well as the education and planning necessary for discharge.

Once you and/or your family have read the information in this booklet, please feel free to ask your nurse or other members of the healthcare team any questions.

**Bowel Resection Surgery**

# ERAS Minimally Invasive/Open Bowel Surgery

|  |  |
| --- | --- |
| **Process** | **Pre-admission (2-3 weeks before surgery)** |
| **Assessment** | * Your nurse will take your weight, height, blood pressure and pulse. |
| **Tests** | * Blood tests, urine sample, electrocardiogram (ECG) and Chest x-ray will be done if ordered by your surgeon. |
| **Consults** | * Anesthesiologist and/or medicine physician will be consulted if ordered by your surgeon. * If applicable, you will be seen by the nurse specialized in wound ostomy continence (NSWOC) for pre-operative stoma teaching and marking if needed. * Dietitian, social worker/discharge planner with Local Health Integration Network Home Community Care (LHIN HCC) will also be consulted if needed. |
| **Medications** | * All your medications, including non-prescription, herbal and vitamin supplements will be reviewed. * You will be advised what medications and supplements to take before your surgery and what to stop. * The nurse will review the bowel preparation if required for surgery with you. |
| **Nutrition** | * Follow the instructions as given to you by the nurse in the pre-operative assessment clinic. * You may have clear fluids up until the time when you leave home for your surgery. |
| **Rest and activity** | * You can continue with normal activity. |
| **Education** | * The nurse will review the patient education booklet. * An NSWOC will discuss living with an ostomy and ostomy management. * The nurse will also review deep breathing and coughing exercises with you. |
| **Discharge planning** | * Your nurse will discuss your arrangements for help at home after surgery with you and arrange for a discharge planner if needed. |

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| **Process** | **OR Day**  🖵 with ostomy 🖵 without ostomy |
| **Assessment** | * Your nurse will monitor your temperature, blood pressure, pulse and oxygen level frequently. * Your abdominal dressing and drain will be monitored. * Your fluid intake and output will be recorded. |
| **Tests** | * You may have blood work done before and after surgery if ordered by your surgeon. |
| **Medications** | * Your pain level will be monitored and pain medication will be given as required. * Your regular medications will also be given as ordered. * If you feel nauseous, let your nurse know she/he will give you medication for this as well. |
| **Treatments** | * Your urinary catheter will be emptied every shift. * You will be given oxygen if needed. * You will be encouraged to do deep breathing and coughing exercises. * You will also be encouraged to do ankle and leg exercises every hour while awake. * The nurse will administer intravenous fluids.   If applicable:   * Your drain will be emptied every shift. * Your ostomy appliance will be monitored every shift and a referral will be placed for an NSWOC to see you while you are in hospital for your ostomy. |
| **Nutrition** | * You will be allowed clear fluids (water, apple juice, ice chips) and protein drink after surgery as tolerated. |
| **Mobility/ hygiene** | * You will be encouraged to sit up at bedside as tolerated. * After surgery you will be assisted to wash as needed. |
| **Education** | * Your nurse will review the pain pump/epidural and pain scale with you. * Your nurse will also discuss methods to manage your pain or nausea with you. * Your ostomy appliance will be monitored every shift and a referral will be placed for an NSWOC to see you while you are in hospital for your ostomy. |

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| **Process** | **Day 1 Post-Op** |
| **Assessment** | * Your nurse will monitor your temperature, blood pressure, pulse and oxygen level. * Your abdominal dressing and drain will be monitored and changed as necessary. * Your fluid Intake and output will be recorded. |
| **Tests** | * You may have blood work if ordered by your doctor. |
| **Treatments** | * You will be given oxygen if needed. * You will be encouraged to do deep breathing and coughing exercises. * You will also be encouraged to do ankle and leg exercises. * You will be administered intravenous fluids and your IV may be changed to a saline lock if you are drinking well. * Your urinary catheter will be emptied every shift and may be removed as ordered.   If applicable:   * Your drain and nasogastric tube will be emptied every shift. * Your ostomy appliance will be monitored every shift. |
| **Nutrition** | * You be advised to keep taking fluids and start a post-surgical or regular diet. * If you have an ileostomy you will be started on a low residue diet. * Continue to take protein drink. |
| **Mobility/ hygiene** | * You will be encouraged to walk twice per day. * You will be able to wash. |
| **Education** | * Your nurse will continue to review deep breathing and coughing, foot and ankle exercises. * Your nurse will continue to discuss methods to manage your pain with you. * Your nurse will review the patient care plan/clinical pathway and discharge instructions with you.   If applicable:   * Your nurse will review the Ostomy Teaching Booklet. |
| **Discharge planning** | * Your nurse will discuss what plans you have made for discharge with you and arrange for a social worker/discharge planner if needed. |

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| **Process** | **Day 2** |
| **Assessment** | * Your nurse will monitor your temperature, pulse, blood pressure and oxygen level. * Your fluid intake and output will be recorded. * Your abdominal dressing will be monitored and changed as necessary. |
| **Tests** | * You may have blood work taken as ordered. |
| **Treatments** | * You will be given oxygen if needed. * You will be encouraged to do deep breathing and coughing exercises. * You will also be encouraged to do ankle and leg exercises. * Your IV will be removed, if you are drinking well. * Your urinary catheter may be removed as ordered.   If applicable:   * Your drain and nasogastric tube will be removed if ordered by surgeon. * Your ostomy appliance will be monitored and changed as needed. |
| **Nutrition** | * You will continue with a post-surgical or regular diet. |
| **Mobility/ hygiene** | * You will be encouraged to walk in the hall as much as you are able. * You may wash at the sink or have a shower. |
| **Education** | * Your nurse will discuss methods to manage your pain with you and activities you can resume. * Your nurse will also review incision care with you explaining the signs and symptoms of infection.   If applicable   * Your nurse will initiate teaching basic ostomy care as per the Ostomy Booklet including family members |
| **Discharge planning** | * You will discuss what plans you have made for discharge with your nurse. * Patients with an ostomy will have follow up with Local Health Integration Network Home Community Care (LHIN HCC) following hospital discharge. * You will be referred to Local Health Integration Network Home Community Care (LHIN HCC) for assistance after discharge if you have an ostomy. * Patient/family aware of planned day of discharge. |

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| **Process** | **Day 3**  **Expected day of discharge for MIS/Laparoscopic** |
| **Assessment** | * Your nurse will monitor your temperature, pulse, blood pressure and oxygen level. * Your fluid intake and output will be recorded. * Your abdominal dressing will be monitored and changed as necessary. |
| **Tests** | * You may have blood work taken as ordered by your doctor. |
| **Treatments** | * If you still have an intravenous (IV), it will be removed today if you are drinking well.   If applicable:  Your drain will be emptied every shift.   * Your ostomy appliance will be monitored and changed as necessary. |
| **Nutrition** | * You will continue on a post-surgical or regular diet. * For ileostomy patients a low residue diet. |
| **Mobility/ hygiene** | * You will be encouraged to walk in the hall as much as you can tolerate. * You will be able to wash at the sink or have a shower. |
| **Education** | * Your nurse will discuss discharge instructions including diet, activity, pain management and incision care.   If applicable:   * Your nurse will continue teaching basic pouch care as per the Ostomy Booklet and include your family members. * Plan to change your ostomy appliance with family participation. |
| **Discharge planning** | * Patient/family aware of planned day of discharge. * If applicable, you will meet with an NSWOC to review your ostomy paperwork and answer any questions you may have. |

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| **Process** | **Day 4-5**  **Day 4 Expected Discharge Day for Open Bowel without Ostomy**  **Day 5 Expected Discharge Day for Open Bowel with Ostomy** |
| **Assessment** | * Your nurse will monitor your temperature, pulse, blood pressure and oxygen level. * Your fluid intake and output will be recorded. * Your abdominal dressing will be monitored and changed as necessary. |
| **Tests** | * You may have blood work taken as ordered |
| **Treatments** | If applicable:   * Your drain will be drained every shift. If going home today it will be removed. * Your Ostomy appliance will be assessed and changed if necessary. |
| **Nutrition** | * You will continue on a post-surgical or regular diet. * Ileostomy patients will follow a low residue diet |
| **Mobility/ hygiene** | * You will be encouraged to walk in the hall frequently. * You will be able to have a shower. |
| **Education** | * Your nurse will discuss discharge instructions including diet, activity, pain management and incision care.   If applicable:   * Your nurse will continue teaching basic ostomy care as per Ostomy Booklet including family members. * Plan to change ostomy appliance with family participation if not already done. |
| **Discharge planning** | * Patient/family aware of discharge. * If applicable:   Meet an NSWOC to review ostomy paperwork and answer any questions you may have. |

**REFERENCES**

Enhanced Recovery Canada – Canadian Patient Safety Institute 2016

Enhanced Recovery After Surgery Society 2016

The Ottawa Hospital ERAS Clinical Pathway 2017

University of Toronto, Faculty of Surgery (E Persall, S McCluskey, MA Aarts, R McLeod), September 2017, Enhanced Recovery after Surgery: ERAS for ALL