

A Guide to Enhancing Your Recovery After Bowel Surgery

Patient Name _____

This pamphlet is to help you understand
and prepare for your surgery.

Please read it thoroughly and review it with your
family as well as your clinician prior to the surgery
and bring it with you on the day of the surgery.



Massachusetts General Hospital
Founding Member, Mass General Brigham

CENTER FOR COLORECTAL SURGERY

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Watch our online video
to review these instructions at:
www.vidscrip.com/MGHeras





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Content of this guide was contributed by the MGH Center for Colorectal Surgery, and the PHS Colorectal Surgery Collaborative in conjunction with the Department of Quality, Safety and Value.

Introduction

This pamphlet is part of the Partners Healthcare System Colorectal Surgery ERAS (Enhanced Recovery After Surgery) and SSI (Surgical Site Infections reduction) Program which is now the standard practice for all scheduled bowel surgery patients in the Partners Healthcare System and affiliated hospitals.

What is the ERAS & SSI Program?

This program is different from the traditional approach to surgery and has been shown to **improve patient recovery** after surgery along with **reducing complications**, **reducing the number of days you stay in the hospital**, and **reducing readmissions** to the hospital after surgery. We want you, the patient, to also be an active participant in the recovery process. The overall goal is for you to have a better surgical experience and get back to normal as soon as possible. With your help, we can achieve these goals.

This program is designed to keep you actively involved in your recovery prior to and after your surgery. This guide is divided into two stages:

Before Your Surgery After Your Surgery

Each stage of this program is tailored to minimize your pain, avoid complications, and allow for earlier resumption of food and activity.

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 as soon as the next day after your surgery. If you are having rectal surgery and you do not have any problems after your procedure, you may go home 2 days after your surgery.



About My Surgery

Date of Surgery: _____

Time of Surgery: _____

Please arrive 3 hours before your scheduled surgery time

Colorectal Surgery
Office Number: _____

Your Surgeon(s): _____

Notes: _____



Before Surgery

How can I prepare for my surgery?



Exercise improves the body's response to stress and improves fitness, which aids in recovery. If you do not exercise regularly, it is advised to start slowly. Exercise does not need to be strenuous, even 15-30 minute walks daily are better than not exercising.

Eating a mixed healthy diet is advised in the weeks leading up to the surgery. However, in the days leading up to surgery, you may include high carbohydrate foods (potatoes, pasta, rice etc.) which allow your body to "carbo load," and have an energy reserve, just like marathon runners do prior to a race.

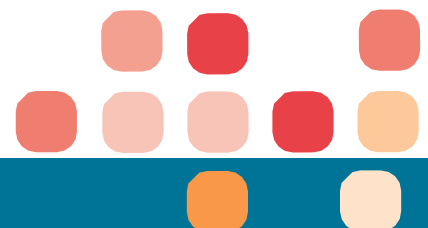


It is strongly suggested that you **stop smoking** completely at least 3 weeks before your surgery, as it will reduce the chances of lung complications during and after surgery and improve your recovery. If you would like more information on how to quit smoking please speak to your doctor, nurse, or pharmacist.

Avoid **consumption of alcohol** at least 24 hours (ideally a month) before your surgery.



Plan ahead. Arrange for someone to accompany you at the time of admission and at the time of discharge. Make prior preparations at home for your arrival after surgery, make sure there is enough food and supplies. You should be able to walk and eat and care for yourself as usual, but you might need some extra assistance initially from family or friends, especially to avoid strenuous tasks immediately after your surgery like laundry, cleaning, grocery shopping, etc.



Before Surgery

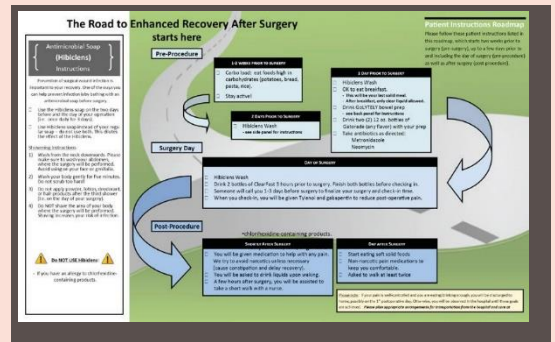
ERAS and Surgical Site Infection Kit

Your surgeon will prescribe you a “kit” for you to pick up at the MGH Outpatient pharmacy located on the Main floor of the Wang Building.

You will either be prescribed Kit #1 or Kit #2 depending on your allergies. The only differences between these kits are the antibiotics that are included.

In this kit, you will find everything you will need to help you prepare for surgery, with the exception of Gatorade.

You will also find a pamphlet in the kit (pictured at right), which contains a road map for you to follow, including day-by-day instructions. You can also find these instructions on the next page and referenced throughout this packet.



NOTE:

If you were not prescribed the kit or could not pick up the kit at the MGH Outpatient pharmacy, please call your surgeon for alternate instructions. They will highlight the relevant steps required for you to prepare for your upcoming surgery.



Before Surgery

Pre-Op Phone Calls

Before your surgery, you will be receiving **2 phone calls** by different members of the surgical team who will be going over different parts of your care:

1. Phone call from a member of the anesthesia team:

This phone call will be scheduled ahead of time to ensure that you are available to take this call.

During this call, a provider will:

- Review which medications you should take on the day of your surgery and which, if any, need to be stopped prior to surgery.
- Ask questions to assess your health and explain the surgery process.

2. Phone call from surgeon's secretary:

1-3 days prior to surgery you will receive a call to:

- Finalize your surgery time and confirm exactly what time you need to arrive to check in.



Before Surgery



Please make sure you look over the day-by-day instructions that were included in the kit you picked up from the MGH Outpatient Pharmacy. You can also review these instructions by following the video link on the front page of this packet.

This includes:

- Instructions for Chlorhexidine bath/shower
- Instructions for Mechanical bowel prep (GoLYTELY)
- Instructions for eating and drinking on day prior to surgery
- Instructions for oral antibiotics prior to surgery
- Instructions for taking a carbohydrate drink on the day of surgery

If you still have additional questions after reviewing these instructions and watching the video, please contact your surgeon's office.

Possible additional visit prior to surgery:

If you are having a surgery that will require an ileostomy or colostomy, you may also have an appointment with the wound care ostomy nurses for teaching prior to your surgery.

Before Surgery

Prior to Surgery

It is recommended that you shower or bathe daily and thoroughly with the provided Chlorhexidine wash starting 2 days before, the day before, and on the morning of surgery (i.e., once daily for 3 days). If you were tested for STAPH and are positive, please defer to instructions provided by your surgeon's office for the use of Chlorhexidine wash and mupirocin nasal ointment. Your doctor will let you know if you need additional testing. Using this wash will help prevent infections from occurring after surgery. Avoid shaving the abdomen or groin area. Do not apply powder, lotion, deodorant, or hair products after the third shower (i.e., on the day of your surgery).

Do not use Chlorhexidine on your face, head, or genitals.

Do not use if you are allergic to Chlorhexidine. Please notify your surgeon if you are allergic or develop a reaction about using an antibacterial soap instead.

Antibacterial shower instructions:

1. Shampoo/condition your hair as you normally do before use of the Chlorhexidine.
2. Rinse your body thoroughly with water.
3. Use the Chlorhexidine wash instead of your regular soap. Do Not Use Both.
4. Turn the water off to prevent rinsing the Chlorhexidine wash off too soon.
5. Wash from the neck downwards. Be especially careful to wash the part of your body where the operation will be performed. Be sure to get in your belly button- you can use a Q-Tip as needed to help with this.
6. Wash your body gently for 5 minutes.
7. Allow the Chlorhexidine to dry on your skin for 1 minute before rinsing off.
8. Turn water back on, rinse well, and pat dry with a clean towel.



The Day Before Surgery

Can I eat or drink the day before my surgery?

Eat a healthy well-balanced breakfast on the day before surgery.

DO NOT eat any solid food **AFTER** breakfast on the day **BEFORE** Surgery. You may only drink clear liquids for the rest of the day. A clear liquid is any liquid you can see through (Dairy drinks, including milk and yogurt-based, and orange juice are **NOT** clear fluids.)

- If your surgery is in the morning, do not eat or drink after midnight.
- If your surgery is in the afternoon, you may drink water or sports drinks for up to 6 hours before your surgery. 6 hours before surgery, do **NOT** drink any fluids other than a small sip of water to take your medications.
 - **You should consume the Carbohydrate drink provided to you starting 4 hours before and complete or finish no less than 2 hours before surgery.**

NOTE: Please follow these instructions carefully — if you consume solid foods or non-clear liquids during this period this may jeopardize the effectiveness of your surgery and affect your recovery, and your surgery may even be postponed!

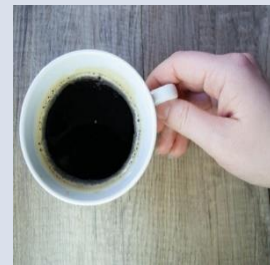
See the following table for examples of clear liquids as well as what to avoid:

Allowed

Water
Juices (without pulp)

Tea or Coffee (without
Milk)

Gatorade (no red)



Not Allowed

Solid foods
Milk
Yogurt

Dairy-based drinks
(Smoothies, Milkshakes)

Orange Juice



The Day Before Surgery

Mechanical Bowel Prep (Laxative)

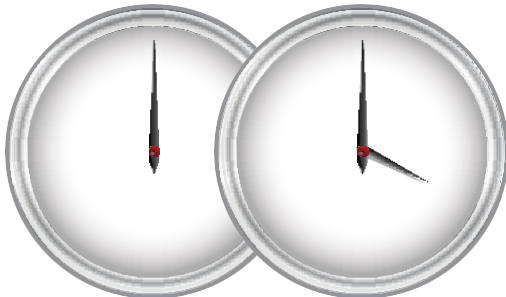
Please follow the instructions given to you when you pick up your ERAS kit from the MGH pharmacy. These instructions are also listed below. The bowel preparation gives you loose, watery stools. Therefore, it is important to replenish the fluid you are losing due to the laxative. This will also prevent any dizziness, headaches, or nausea. Drink clear fluids as described in the section above, try to avoid fizzy or soft drinks in this phase as they do not hydrate as well as other fluids like water or juice.

Mechanical bowel prep instructions:

Bowel Prep: Please start the prep (GoLYTELY) between **12 noon and 4pm**. Please make sure you give yourself enough time so that you are able to finish it before midnight.

To make GoLYTELY more palatable, you can chill it and add small amounts of lemon or lime concentrate to the solution. You can also use Crystal Light packets to help flavor this drink.

Gatorade: We would also like you to specifically drink a total of 24 oz of Gatorade anytime the day before surgery, prior to midnight. Any flavor (even the red/cherry) is fine, as long as you are not having a colonoscopy prior to your surgery.



- Start GoLYTELY between 12pm-4pm. Finish before midnight.



- Drink 24 oz Gatorade (no red) before going to bed.

Bowel preps are meant to clean out your intestines of any food or waste remnants. This helps to prevent contamination during your bowel surgery and reduces the chances of infections afterwards.

The Day Before Surgery

Oral Antibiotics

You will need to take 2 different oral antibiotics the evening before your surgery. These antibiotics are included in the kit you will pick up from the MGH pharmacy.

Oral antibiotic instructions:

Antibiotics:

1. Metronidazole 500 mg
Timing: Take 1 tablet (500 mg) at 5pm, 6pm, and 8pm on the night before your surgery
OR
Erythromycin 500 mg (if you have an allergy to Metronidazole)
Timing: Take 2 tablets (500 mg) at 5pm, 6pm, and 8pm on the night before your surgery
2. Neomycin 1000 mg
Timing: Take 2 tablets (1000 mg) at 5pm, 6pm, and 8pm on the night before your surgery



Dose #1 taken:
5pm



Dose #2 taken:
6pm



Dose #3 taken:
8pm



Antibiotics will help prepare your body to prevent and fight any infections that may happen during or after your surgery.

On The Day of Surgery

Carbohydrate Drink

Please follow the instructions in the pamphlet included in the kit you pick up from the pharmacy regarding drinking of the carbohydrate supplement drink. **DO NOT** follow the instructions listed on the bottles themselves.

Please remember that this is not a bowel prep, so you do not need to be worried about being close to a bathroom. The Carbohydrate drink given to you in the surgery kit and a small sip of water to take your medications should be the only things you drink on the morning of surgery.

Carbohydrate supplement drink instructions:

Drink both bottles on the day of surgery, starting **4 hours** before and complete or stop no less than 2 hours before your surgery.

- Carbohydrate drink **started 4 hours** before surgery
- Carbohydrate drink **finish or stop no less than 2 hours** before surgery

**If you are diabetic, please follow your recommended diet and do not consume the carbohydrate drink as it may increase your blood sugar.

Medications

Please take only the medications that were approved by the anesthesia team during your pre-op phone call. It is okay to take medications with

Consuming a Carbohydrate supplement drink before surgery will make sure the sugar level in your blood is more consistent during the surgery which allows you and your bowel to recover faster and heal more quickly.



On The Day of Surgery

When you arrive at the hospital:

Admission process:

Please enter through the main hospital entrance or Wang Ambulatory Care Center entrance. Proceed to the 3rd floor of the Wang building. You will be checking in at the Center for Peri-operative Care (CPC). Once you have checked in a liaison will bring you to the pre-operative holding area.

Pre-Operative area:

Here you will meet a number of members from the surgical team.

1. Nursing:

- A nurse in the pre-operative area will help you prepare for surgery by going through this pamphlet with you and reviewing your checklist items
- The nurse will also measure your vital signs and glucose level.
- You will also meet the nurse who will be in the operating room.

2. Anesthesia team:

- Will give medications by mouth to help prevent pain, nausea, and vomiting.
- Insert an IV line into your vein to give fluids, medications or blood needed during or after surgery.
- Review options for pain management during and after surgery.

3. Surgical team:

- Discuss your procedure and answer any questions or concerns.
- Finalize consent forms.



The Anesthesiologist is responsible for looking after your vitals (heart rate, blood pressure, temperature and breathing), fluid and blood replacement if needed, as well as your general comfort, pain level during and after your surgery.

On The Day of Surgery

When you arrive at the hospital (continued):

Operating room:

You will be helped onto the operating room table by the team and made comfortable as we continue to prepare you for surgery.

1. **IV lines** – another IV may be placed to help with administration of medications needed for surgery. These medications include antibiotics, pain medication and nausea medication etc.
2. **Urinary catheter** - A urinary catheter will be inserted into your bladder to drain urine. This catheter is usually removed in the operating room before you wake up. If you are having a more complex surgery, the catheter may stay in place for up to 72 hours, unless you require an epidural for pain control.
3. You will be given anesthetic and put to sleep.
4. You may also receive an **epidural** or nerve block, to help with pain management during and after surgery. This will be discussed with you by your anesthesiologist prior to your surgery.

An epidural involves injecting pain medication into an area near the spinal cord. This is done by the anesthesiologist. These medications work by numbing your nerves in order to provide pain relief in certain areas of your body. Epidurals can be used during surgery in combination with sedatives and anesthetic as well as on their own.



After Surgery

Recovery Room/PACU

When your surgery is over you will be transported by the team to the post anesthesia recovery unit (PACU). You will likely still feel quite sleepy and disoriented. This is normal and related to the anesthesia you received during surgery. It will take some time for these medications to wear off.

You will spend at least 2 hours in the recovery room being monitored after surgery. During this time, you can expect most of the following:

- Nurses checking your vital signs frequently – blood pressure, heart rate, breathing and temperature, blood glucose level as well as your wound and dressing.
- Anesthesia team checking on your pain level.
- You may have an epidural in place for pain control and/or a special nerve block that covers the surgical incision
- Being kept on oxygen – either through your nose or a face mask
- Being attached to an IV for fluids and pain medications

Once you are settled in the PACU, 1-2 family members/friends may be allowed to visit for a short time. When the team feels that you are stable and your pain is controlled, you will be transferred out of the recovery room to your assigned room on the floor.

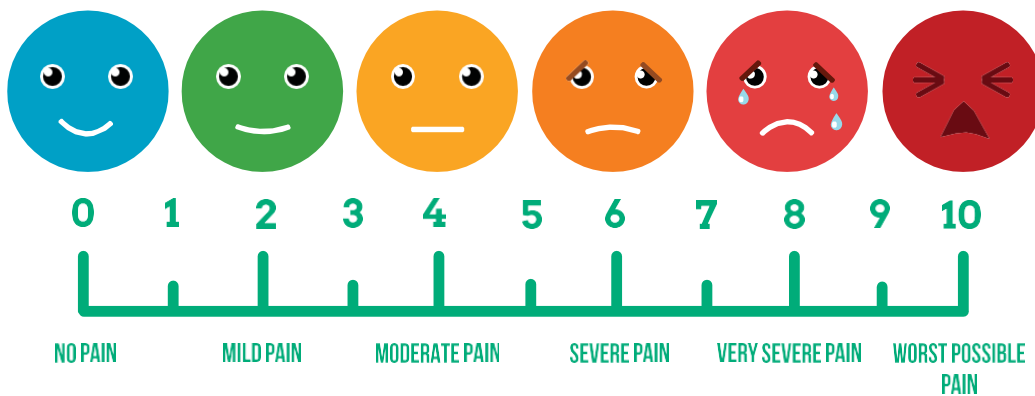


After Surgery: Pain Control

Pain Control

Good pain control is an important part of the recovery process. You should expect to encounter some pain after surgery. There is no way to completely eliminate pain, but there are a variety of ways to help manage your pain. Please let your nurse or doctor know if you are in any pain or discomfort.

Pain Intensity Scale:



Our goal is to keep your pain at a level that allows you to sleep and rest better, breathe more easily, start moving quickly after surgery, start eating sooner. This is important as it helps to prevent complications like blood clots and pneumonia. Walking can also be helpful for the return of bowel function and puts you on the road to recovery.



Activity After Surgery

Avoiding movement and lying in bed for an extended period can lead to complications like clots, bed sores and muscle weakness. This will impede your recovery.

After bowel surgery, your bowel may stop moving for a short time. If this happens, you may feel nauseous and bloated and it may prolong your recovery. You can avoid this by walking frequently and chewing gum.

When can I start moving or sitting?

You can start moving as soon as you wake up, however it is best to always progress slowly. Therefore, you should initially start with some basic leg exercises like wiggling your toes, stretching your legs out straight and rotating your feet. Do these for a few minutes every half hour, and it will help you get on your feet sooner. Stop doing this if it causes pain and let your nurse or doctor know.

3-6 hours after surgery:

You may be ready to sit at the edge of the bed or even a chair the same day as your surgery. Your nurse will help you, especially the first time you are getting up. You may also be able to take a short walk if you are feeling well. It is important to always have someone close by for assistance as you may be weak and unsteady on your feet.

On the day after surgery:

Starting the day after surgery, the goal will be for you to be out of bed at least 3 or 4 times a day and to take walks in the hallway. We also expect you to be sitting in a chair for meals. There will be someone to help you do this in the beginning until you are strong enough to get up on your own.

Breathing exercises:

It is important to be able to take deep breaths after surgery to prevent lung infections. The nursing staff will show you some breathing exercises that are helpful. It is also a good tip to take a few deep breaths during each commercial break while you are watching TV. Do these brief breathing exercises at least 5-10 times an hour while awake.



After Surgery: Questions

Diet after surgery: When can I start eating?

With the ERAS program we are able to advance your diet starting the same day of surgery. As soon as you are awake and alert in the PACU/Recovery room you will be allowed to take small amounts of clear liquids by mouth.

1. Your physician will decide when it is appropriate to allow you to start drinking fluids. As a general rule, your IV fluids will be stopped within 6 hours after your surgery or as soon as you can tolerate at least 300ml of clear liquid by mouth.
2. If you are not experiencing any nausea and your abdomen is not distended/bloated, then you will be allowed to slowly advance to a regular diet based on your surgeon's discretion. Usually this is done by starting with some bland food, like toast and crackers before moving on to more solids. You do not need to eat if you feel full or bloated. It is more important to keep yourself hydrated with fluids.
3. Your physician may also ask you to bring gum from home to chew for 30 minutes three times per day after your surgery.

Urinary catheters: When will my urinary catheter be removed?

For most surgeries, your catheter will be removed in the operating room before you wake up from surgery.

For more complex surgeries, your catheter will be removed within 72 hours after surgery unless you require an epidural for pain control.

Once the urinary catheter is removed, you are free to go to the bathroom to urinate. You can expect it to take 6-8 hours before you feel the need to urinate, which is normal.

Leaving the catheter in longer than necessary can lead to a urinary tract infection. Symptoms of a urinary tract infection include:

Pain with urination, Frequent urination, Feeling the need to urinate despite having an empty bladder, Fever, and pain in your side. Let your nurse or physician know immediately if you experience any of these.



Discharge from Hospital

When can I go home?

In order to be ready for discharge from the hospital, you must be doing all things listed below:

- Pain well controlled with pain medication by mouth
- Able to take in enough fluids to keep hydrated

If your pain is well controlled and you are drinking enough, you will be discharged to home, possibly on the day after surgery. Otherwise, you will be observed in the hospital until these goals are achieved.

It is NOT required for you to pass gas or have a bowel movement before you are discharged.

NOTE:

Please plan appropriate arrangements for transportation from the hospital and care at home



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