

ERAS

Enhanced Recovery After Surgery

A Guide for Patients Undergoing Colorectal Surgery



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Saint Francis Hospital and Medical Center 114 Woodland Street • Hartford, CT 06105 • 860-714-4000

ENHANCED RECOVERY AFTER SURGERY

WHAT IS ENHANCED RECOVERY?

Enhanced recovery is a program designed to improve the experience of patients who need major surgery. It helps patients recover sooner so life can return to normal as quickly as possible. The ERAS program requires that patients are actively involved in their recovery.

There are three main stages:

- PRE-OPERATIVE (before surgery)
- INTRA-OPERATIVE (during surgery)
- POST-OPERATIVE (after surgery)

The goals of ERAS are to reduce surgical stress, minimize pain, allow for earlier resumption of food and activity while reducing post-operative complications. It is important for you to participate in your recovery.

By working together, we hope to keep your hospital stay as short as possible.



MY SURGERY

PATIENT NAME:
DATE OF SURGERY:
ARRIVAL TIME:
SURGEON:
SURGEON'S PHONE NUMBER:
DATE OF OFFICE ADDOINTMENT AFTER DISCULADOF.



We want to thank you for choosing Saint Francis Hospital and Medical Center for your surgery. Your care and well-being are important to us. We are committed to providing you with the best possible care using the latest technology.

This handbook should be used as a guide to help you through your recovery.

CONTACT INFORMATION

MAIN HOSPITAL ADDRESS:

SAINT FRANCIS HOSPITAL AND MEDICAL CENTER 114 WOODLAND STREET HARTFORD, CT 06105

VISITING HOURS ARE 8 a.m. - 8 p.m.
Visitors after 8 p.m. must enter through security,
2nd floor garage entrance.

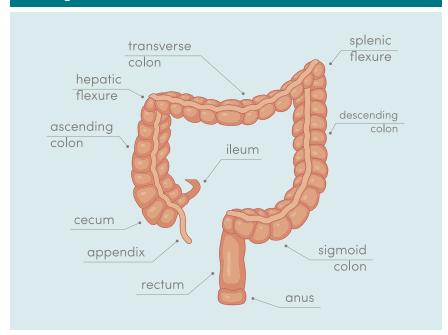
Contact	Phone Number		
Main Operator	(860) 714-4000		
Admitting	(860) 714-5166		
Patient Information	(860) 714-5166, Option #1		
Patient Registration	(860) 714-5166, Option #3		
Pre-Operative Center	(860) 714-5622		
Post-Anesthesia Care Unit	(860) 714-5752		
7-7 Post-Operative Inpatient Unit	(860) 714-0700		
7-7 Nurse Manager	(860) 714-4958		
Wound Ostomy Center @ Mount Sinai	(860) 714-3010		
Arrow Pharmacy	(860) 714-7455		
Billing	(860) 714-4952		
LAZ Parking Information	(860) 714-1587		
Medical Records	(860) 714-4646		
Security	(860) 714-4492		

To sign up for patient portal and access your medical information online please go to www.stfranciscare.org

INTRODUCTION TO COLORECTAL SURGERY

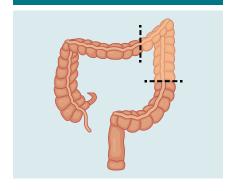
Colorectal Surgery involves removing portions of the colon and/or rectum for both cancerous and non-cancerous pathology. Surgery may be advised for diverticular disease of the colon in patients who have had complications or multiple bouts of inflammation. Other reasons for surgery are polyps that are unsafe to remove by colonoscopy or a biopsy that is positive for cancer cells. The majority of surgeries are accomplished laparoscopically, with a small camera for viewing placed in the abdomen and small incisions for placement of surgical instruments. The intestines are usually reconnected during the surgery. Your surgeon will talk to you about the risk or potential need for an ostomy, which allows the intestines to empty through the skin and into a bag. An ostomy is only needed in certain conditions.

The Large Intestine

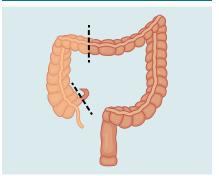


UNDERSTANDING YOUR SURGERY

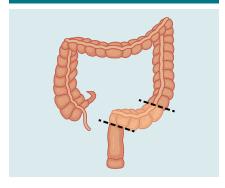
Left Colectomy



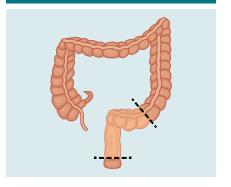
Right Colectomy



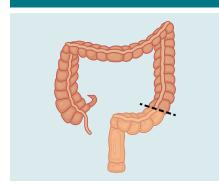
Sigmoid Colectomy



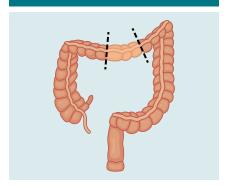
Lower Anterior Colectomy



Abdominal Perineal Resection



Segmental Resection



Chapter 1:

Before Your Surgery

BEFORE YOUR SURGERY

PRE-OPERATIVE CENTER:

A clinician from our pre-operative center will contact you approximately 1-2 weeks prior to your surgery to review the highlights of this manual and answer any questions you may have. They will have reviewed your medical information and offer specific recommendations depending on the type of surgical procedure, your diagnosis and general medical health. Please feel free to acquaint them with any facet of your lifestyle as well as responsibilities associated with your job or family life that may impact your recovery. They will attempt to provide guidance and resources.

If you prefer an in person review and counseling session we can accommodate this request at no cost to you. In addition we will give you a tour of the preoperative and inpatient unit where you will recover, as well as an introduction to our caregivers.

Within 48 hours prior to surgery the pre-operative center staff will confirm the time of your procedure in case there have been changes to the schedule.

Medications to hold the night p	rior to surgery:
Medications to hold the day of s	surgery:



STOP taking all vitamins, supplements, and herbs 1 week before your surgery. If you are on aspirin, Plavix, Coumadin, Xaralto, Eliquis, or any other blood thinners or platelet inhibitors, please speak to the prescribing doctor about when to stop them prior to surgery.

 If you are taking additional medications for chronic pain, please continue those until your surgery.

PREPARING FOR SURGERY

You should expect to be in the hospital for about 3 days. When you leave the hospital after surgery, you will need some help from family or friends. It will be important to have help with meals, taking medications, etc.

You can do a few simple things before surgery to make your recovery at home easier:

- Clean and put away laundry
- Put clean sheets on the bed
- Put things you use often between waist and shoulder height to avoid bending and stretching too much
- Bring the things you are going to use often during the day downstairs.
 But remember that you WILL be able to climb stairs after surgery.
- Buy the foods you like and other things you will need since shopping may be difficult when you first arrive home
- Cut the grass, tend to the garden, and do all house work
- Arrange for someone to get your mail and take care of pets and loved-ones, if necessary

OTHER HELPFUL TIPS:

- ✓ Eating healthy food before surgery will help you recover faster
- Get enough exercise so you are in good shape for surgery
- Stop or cut back smoking before surgery by contacting your primary care physician for assistance
- Follow the orders you were given regarding blood thinners and diabetes medications

PRE-SURGERY CHECKLIST

What you SHOULD bring to the hospital:

Any paperwork given to you by the doctor
\ensuremath{A} copy of your $\ensuremath{Advance}$ Directive form, if you completed one
A medication list that includes dosages and times per day
A change of comfortable clothes for discharge
Any toiletries that you may need
Your CPAP or BiPAP, if you have one
Eyeglasses in a case labeled with your name
Two packs of sugar free gum

What you SHOULD NOT bring to the hospital:

- Large sums of money
- Please leave all jewelry, credit cards and objects of value at home.
 The hospital is not responsible for these items

For your safety, you should plan to:

- ✓ Identify a Care Partner for your stay in the hospital
- Have a responsible adult with you on the day of discharge, to review your instructions and drive you home
- If you plan to take a taxi cab home, you must have a responsible adult travel with you



DAY BEFORE SURGERY

SCHEDULED SURGERY TIME

A nurse will call you the day before your surgery to tell you what time to arrive at the hospital. If your surgery is on a Monday, you will be called the Friday before.

If you do not receive a call by 3:00 p.m., please call 860-714-4394.

Please write your arrival time on page 4 of this handbook in the space provided.

Two prescriptions will be sent directly to your pharmacy for oral antibiotics to take the day before surgery. The antibiotics are Neomycin and Flagyl (metronidazole.)

THE DAY BEFORE SURGERY:

- At 1:00 p.m. take 2 pills of Neomycin and 1 pill of Flagyl (Metronidazole)
- At 2:00 p.m. take 2 pills of Neomycin and 1 pill of Flagyl (Metronidazole)
- At 8:00 p.m. take 2 pills of Neomycin and 1 pill of Flagyl (Metronidazole)







SHOWER INSTRUCTIONS:

- Follow preoperative Hibiclens (chlorhexidine) bathing instructions from surgeon's office
- DO NOT shave any hair from your abdomen or groin

FOOD AND DRINK THE NIGHT BEFORE SURGERY

If you ARE doing a bowel preparation, do not eat solid foods after 8:00 AM on the day prior to surgery
If you ARE NOT doing a bowel preparation, do not eat solid foods after midnight before your surgery.
You can drink clear liquids up to 2 hours prior to surgery.
Carbohydrate drink: prior to leaving home drink 12 ounces of apple, cranberry or grape juice within a ten minute period. This helps combat the negative effects of the "starvation state."

A clear liquid is any liquid that you can see through. Examples of clear liquids are water, apple juice without pulp, coffee or tea without milk or cream.

Milk and orange juice are not clear liquids and should not be consumed.



DAY OF SURGERY

BEFORE YOU LEAVE HOME:

	Repeat shower with the hibiclens or dial soap
	Remove makeup, jewelry and all piercings
	Finish carbohydrate drink
REN	AINDER: If you eat solids or drink non-clear liquids your surgery will be cancelled.

HOSPITAL ARRIVAL:

Arrive at the hospital on the morning of surgery at the time written on page 4. Your arrival time is 2 hours before your scheduled surgery time. Park in the garage labeled "Public Parking" and bring ticket to be validated at check in. Free valet parking is also available. Inside the hospital, take the green elevator to the 3rd floor. It is a 3-minute walk, so if you need special assistance, security can arrange for a mini cab or wheelchair.





SURGERY:

Report to 3-1, Registration area for the Main Operating Room. You will:

- Be identified for surgery and get an ID band for your wrist
- Be given several medicines that will help keep you comfortable during and after surgery, protect you from blood clots, and stimulate your bowels after surgery
- Meet the anesthesia team and review your anesthetic plan. Your family can remain with you during this time.
- Your surgeon will mark his/her initials on your abdomen depending on what type of surgery you are having

IN THE OPERATING ROOM (OR)

During the surgery, your family may go home or may stay in the waiting room. The length of surgery is typically 2-4 hours.

Many patients do not recall being in the operating room because of the medication given to relax you and manage your pain.

Once you arrive in the OR:

- Your identity will be checked
- Monitors and a warming blanket will be applied
- Sleeves will be placed on your legs to circulate your blood during surgery
- You may be given a blood thinner injection to prevent blood clots
- ✓ You will be given antibiotics, if needed, to prevent infection



Chapter 2:

After Your Surgery

AFTER YOUR SURGERY

POST ANESTHESIA CARE UNIT: (PACU)

After surgery, you will be taken to the recovery room. Most patients remain in the recovery room for about 2 hours.

The surgeon will call your family after surgery to give them an update.

Once you are awake and alert, you will be given clear fluids to drink.







HOSPITAL INPATIENT UNIT

From the recovery room, you will be brought to the surgical floor. Sometimes, it can take more than 2 hours to get to a room if the hospital is full and patients need to be discharged to make room for new patients. Volunteers in the waiting room will tell your family your room number so they can join you.

On the surgical floor you:

- Will have a small tube in your bladder called a urinary catheter.
 We will measure how much urine you are making to monitor how well your kidneys are working
- Will be given oxygen and have your temperature, pulse, and blood pressure checked
- Will have an IV in your arm to give you fluid
- Will be allowed to drink fluids
- Will receive a blood thinner injection daily to help prevent blood clots
- Will be given an incentive spirometer (a device to measure how deeply you are breathing). We will ask you to use it 10 times an hour to keep your lungs open.
- Will be placed on your home medications (with the exception of some diabetes and blood pressure medications)
- Will get out of bed on the day of your surgery, with help from the nurse





Lying in bed without moving may cause many problems like pneumonia, blood clots, and muscle weakness. It will also slow your recovery.

The more often you get up, the better you will feel!

YOUR CARE TEAM

In addition to the nursing staff, the Colorectal Surgery team will care for you.

This team is led by your surgeon, and may include a surgical fellow along with residents, physician assistants, and advanced practice nurses.

There will always be a team member in the hospital 24 hours a day to respond to emergencies.

PAIN CONTROL FOLLOWING SURGERY

Managing your pain is an important part of your recovery. We will ask you regularly about your level of comfort. It is important that you are able to take deep breaths, cough, and move.

Preventing and treating your pain early is easier than trying to treat pain after it starts, so we have created a specific plan to stay ahead of your pain.

This plan will decrease the amount of opioids you take after surgery. Opioids can significantly slow your recovery and cause constipation.

- We may treat your pain during surgery with an injection at the surgery site
- You will receive several pain medicines around the clock to keep you comfortable

If you are on long-standing pain medication prior to surgery, our pain specialists will provide you with an individualized regimen for pain control

Numerical Rating Scale for Pain										
0	1	2	3	4	5	6	7	8	9	10

0 = No Pain 10 = Worst Pain

EXPECTATIONS FOR FIRST DAY AFTER SURGERY

The day after surgery, you:

 Will have your diet advanced according to your condition.
 You should not push yourself.
 Eat only when you are hungry or feel ready. "Trust your gut!"



You should chew gum for at least 5 minutes,

3 times per day.

Will be encouraged to drink as tolerated

Will likely have your IV fluids stopped

Will usually have the catheter removed from your bladder

Will be asked to get out of bed with help and sit in the chair for a total of 6 hours in two-hour intervals

Will be expected to eat all of your meals in a chair

EXPECTATIONS FOR SECOND DAY AFTER SURGERY

Two days after your surgery, you:

Will possibly have the catheter removed from your bladder, if it hasn't been removed already

Will eat regular foods, if you haven't already

Will have the dressing removed from your wound and will take a shower

Will have the tubing disconnected from your IV

Will receive ostomy instructions, if you have an ostomy

Will be asked to be out bed for the majority of the day and walking 3 times with help





Look up! Use the "mile markers" in the hallways to keep track of your progress.

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EXPECTATIONS FOR THIRD DAY AFTER SURGERY

Three days after surgery, you may be able to go home if you:

Are off all IV fluids and drinking enough to stay hydrated

Are comfortable and your pain is adequately controlled

Are not nauseated or belching (burping)

Are passing gas

You do not have to have a bowel movement before you go home

Do not have a fever

Are able to get around on your own





Remember, we will not discharge you from the hospital until we are sure you are ready. For some patients this requires an additional day or so in the hospital.

POINTS TO REMEMBER

Walking: Early and often will help your bowel activity return quicker.

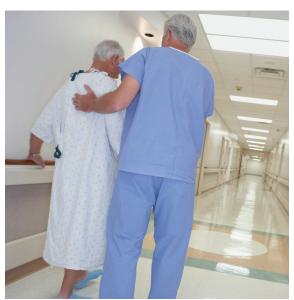
Deep Breathing and Coughing Exercises: Take 8-10 deep breaths per hour while awake. Cough using a small blanket or pillow against your abdomen.

Hand hygiene: Washing hands is the first line of defense to prevent infections, using either soap and water or an alcohol-based product. Healthcare workers, patients, and families should wash their hands when entering and exiting your room, and before and after patient / environment contact.

Leg exercises: Will help blood circulation in your legs.

Repeat exercises 4 to 5 times every 30 minutes while awake:

- Rotate your feet to the left and then to the right
- Wiggle your toes and bend your ankles up and down
- Stretch your legs out straight







EXPECTATIONS WHILE AT HOME

- You should have minimal nausea
- You should be able to tolerate light meals
- You should be passing gas
- You should be passing your urine well
- You should be able to get in and out of bed on your own
- Your pain should be managed well enough to walk and carry on daily activities
- 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 the stairs once or twice a day
- You should have everything organized at home (for example, food to eat)
- All of your questions and concerns about your ongoing recovery at home have been answered by your healthcare team

COMPLICATIONS DELAYING DISCHARGE

Post-operative nausea and vomiting

It is very common to feel nauseous after your surgery. We give you medication to reduce this. If you do feel queasy, you should eat less food and switch to a liquid diet. Small frequent meals or drinks are best in this situation. As long as you can drink and keep yourself hydrated, the stomach upset will likely pass.

Postoperative ileus... (pronounced ill-ee-us)

After surgery your bowel may temporarily stop working. This is called ileus. You will feel bloated and may have nausea and vomiting. This will increase your recovery time. Narcotic pain medication increases the chance of ileus. Walking and chewing gum will help the bowel recover faster and may speed recovery.





Remember, passing gas is a better sign that your gut is working than having a bowel movement. You do not need to have a bowel movement to go home.

DISCHARGE

BEFORE YOU ARE DISCHARGED, YOU WILL BE GIVEN:

A prescription for pain medicine
A copy of your discharge instructions
A list of any medications you may need
You may be given a blood thinner that must be injected daily for 4 weeks. This lowers the risk of blood clots. Our nurses will teach you how to give yourself the injection. If you prefer a family member give the injection, please arrange for them to come to the hospital for instructions.





INPATIENT REHABILITATION

After surgery your ability to walk and carry on daily activities may be impaired. You may benefit from physical therapy and occupational therapy at an inpatient rehabilitation center. Our physical and occupational therapists will evaluate you and discuss their assessment. If you need inpatient rehabilitation our case managers can make arrangements to transfer you to a facility that would best serve your needs. You may want to tour facilities near your home prior to your admission so that a bed can be reserved for you in advance.

You are more likely to need rehabilitation if you:

- Are elderly
- Have previous disabilities such as stroke or amputation
- Are responsible for the care of a chronically ill spouse or family member
- Have few local family members that can assist you at home

SIGNS & SYMPTOMS TO WATCH FOR

CALL YOUR SURGEON RIGHT AWAY IF YOU HAVE ANY OF THE FOLLOWING:

- ✓ A fever (temperature greater than 38 C or 100.5 F)
- You are vomiting, bloated or feeling nauseous all of the time
- Redness, swelling, odor, pus or increasing pain from your surgical wound
- Bright red blood from your rectum



BOWEL FUNCTION

- After your operation, your bowel function will take several weeks to settle down and may be slightly unpredictable at first. For most patients, this will resolve with time.
- Patients can have a variety of bowel complaints, including:
 - Irregular bowel habits
 - Bowel movements that are loose or constipated
 - Difficulty controlling bowel movements with occasional accidents
 - Feeling that you need to have a bowel movement even if you've had several in a row.
- Make sure you eat regular meals, drink plenty of fluids and take regular walks during the first two weeks after your operation
- If you are having multiple, watery bowel movements per day, please contact your surgeon. You may need to be tested for a bacterial infection of the stool.



ABDOMINAL PAIN

It is not unusual to suffer gripping pains (colic) during the first week following removal of a portion of your bowel. This pain usually lasts for a few minutes but goes away between spasms.

If you have severe pain lasting more than 1–2 hours or have a fever and feel generally sick, you should contact your surgeon.



DIARRHEA

Most problems with diarrhea go away once the stool is made firmer. A firmer stool is easier to hold in and pass more completely. Having a few loose bowel movements is common. If this continues for more than two days please call your surgeon.

URINARY FUNCTION

After surgery, you may feel that your bladder is not emptying completely. This usually resolves with time. If you were prescribed a medication like Flomax to help pass your urine, continue to take it. However, if you are not urinating or if there is any concern, contact your surgeon.

If you have severe stinging or burning when passing urine, please contact us as you may have an infection.





WOUND CARE

For the first 1–2 weeks following your surgery, your wound may be slightly red and uncomfortable. If your wound is inflamed, painful, swollen or leaking milky fluid, please contact us.

- You may shower and let the soapy water wash over your incision
- Avoid soaking in the tub for 1 month following surgery or until the scar is well healed
- ✓ The scar will "soften up" over several months
- ✓ If you have staples or sutures, we will arrange for them to be removed 7-14 days after discharge

DIET

You may find that after your operation you may have to make some slight temporary adjustments to your diet depending on your bowel pattern.

At your first post-operative appointment, let your surgeon know how you are tolerating solid food.

You may find that some foods cause loose stools. If this happens, avoid these foods for the first few weeks after surgery. Slowly reintroduce them, one at a time.

You should try to eat a balanced diet, including:

- Foods that are soft, moist and easy to chew and swallow
- Foods that can be cut or broken into small pieces
- Foods that can be softened by cooking or mashing
- Eat 4-6 small meals throughout the day to reduce gas and bloating
- Eat plenty of soft breads, rice, pasta, potatoes and other starchy foods (lower-fiber varieties may be tolerated better initially)
- Drink plenty of fluids. Aim for at least 6-8 cups per day of water, fruit juice, teas, coffee or milk (regular milk is encouraged as a good source of nutrients to aid in your recovery.)

Avoid alcoholic beverages for two weeks.

Be sure to:

- Chew food well take small bites!
- Consume high protein foods and beverages such as meats, eggs, milk, cottage cheese, Ensure, Resource Breeze, Carnation Instant Breakfast, Boost, etc.

Some patients find their appetite is decreased after surgery. This could be a sign of constipation. Small, frequent meals throughout the day may help. Over time, the amount you can comfortably eat will increase.





Some patients feel nauseated. To minimize this feeling, avoid an empty stomach. Eat small amounts of food and eat slowly.

If your appetite is poor, make the most of mealtime by choosing high-calorie foods.

HOBBIES AND ACTIVITIES

Walking is encouraged from the first day after your surgery. Plan to walk three to four times daily.

You should NOT:

- Do any heavy lifting, pushing or pulling (no more than a gallon of milk = 5 lbs.)
- Play contact sports for 6 weeks following your surgery
- Insert anything into your rectum, such as a suppository or enema, until your post-op appointment or unless approved by your surgeon

You SHOULD:

- Be able to climb stairs
- Return to hobbies and activities soon after your surgery.
 This will help you recover faster.

Remember, it can take up to 2-3 months to fully recover. It is not unusual to feel tired and need an afternoon nap 6-8 weeks following surgery. Your body is using its energy to heal.

WORK

You should be able to return to work 4–6 weeks after surgery. If your job is manual labor, you should not perform heavy work until 6 weeks after your operation. You should check with your employer regarding the rules and policies of your workplace, which may be an important factor in returning to work.

If you need a "Return to Work" form for your employer, or disability papers, please bring these to your surgeon's office.

DRIVING

You may resume driving when you are off narcotics for 24 hours and you can react quickly and painlessly with your braking foot. For most patients this occurs at 2 weeks following surgery.

RESUMING SEXUAL RELATIONSHIPS

You may resume sexual relationship when cleared by your surgeon and when you feel comfortable doing so.

Discuss any questions, fears or concerns with your doctor or nurse. If you don't ask questions, your healthcare team will assume that everything is fine and that there are no problems.

WRITE ANY QUESTIONS YOU HAVE HERE:

We pride ourselves in providing each of our patients with our absolute best. It is a privilege to care for you and your family in your time of need. If you have any suggestions about how to improve your care or the care of others, please let us know.



114 Woodland Street Hartford, Connecticut 06105 stfranciscare.org