

Enhanced Recovery after Surgery (ERAS)

A Guide for Patients Having Colorectal Surgery



Reminders

Patient name:			
Surgery date:			
Doctor:			
Time to arrive:			

Thank you for choosing University of Iowa Hospitals and Clinics for your surgery. Your care and well-being are important to us. We want to provide you the best possible care using the latest technology.

This book should be used as a guide to help you through your surgery and recovery. It will help answer questions you may have.

Please give us any feedback you think would make your experience even better.



Please bring this book with you to:

- Each office visit
- Your admission to the hospital
- Follow up visits

Table of Contents

- 1 Contact Information
- 3 What is Enhanced Recovery after Surgery (ERAS)?
- 5 Colorectal Surgery
- 8 Before Your Surgery
- 12 Getting Ready for Surgery
- 14 Day Before Surgery
- 16 Day of Surgery
- 18 After Surgery
- 27 Complications that Can Delay Leaving the Hospital
- 28 Leaving the Hospital
- 29 After You Leave the Hospital
- 37 Illeostomy Care Instructions
- 41 Colorectal Surgery: Patient Checklist
- 43 My Activity Log

Contact Information

The main hospital address is: University of Iowa Hospitals and Clinics 200 Hawkins Drive Iowa City, IA 52242

Digestive Health Center (319) 356-4901

Contact	Phone number
Camille Rasmussen, PA(clinic)	319-384-9841
Cassie Hingst, support staff	319-384-7359
Peggy Guither, ARNP (inpatient)	319-356-0745
Colorectal Surgery fax	319-356-4609
Anesthesia Pre-Surgical Evaluation Center	319-353-6684 8 a.m. to 4:30 p.m. Monday through Friday
Hospital Inpatient Unit: 2 RC	319-356-4972
UI Hospitals and Clinics, main hospital (ask for the surgery resident on call)	319-356-1616
Day of Surgery Admissions (DOSA) 24 hours a day	319-384-8039
Interpretation and Translation Services	319-356-1967
Hospital billing questions	866-393-4605

Notes	

What is Enhanced Recovery after Surgery (ERAS)?

What is enhanced recovery?

It is a new way of improving your experience and outcomes after a major surgery. It helps you recover faster and get back to your normal life as quickly as possible. The ERAS program focuses on making sure you are actively involved in your recovery.

There are 4 main stages:

- 1. Planning and preparing before surgery:
 This gives you plenty of information so you feel ready.
- 2. Lowering the physical stress of the surgery: This lets you to drink up to 2 hours before your surgery.
- 3. A comfort plan:

 It focuses on giving you the right medicine you need to keep you comfortable during and after surgery, while reducing the amount of narcotic you get.
- 4. Early feeding and moving around after surgery:
 This lets you to eat, drink, and walk around as soon as you can.

You need to know what to expect before, during, and after your surgery. Your care team will work closely with you to plan your care and treatment. You are the most important part of the care team.

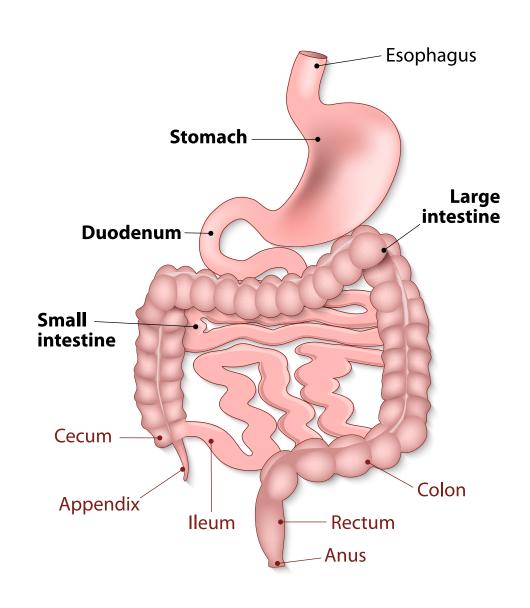
Please take part in your recovery and follow our advice. By working together, we hope to keep your hospital stay as short as possible.



Notes	

Colorectal Surgery

Human Gastrointestinal Tract



Your surgery can be done in 2 ways:

1. Laparoscopic or robotic (minimally invasive)

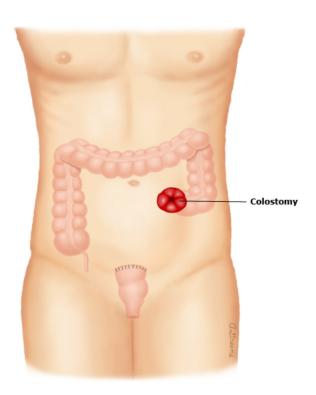
During laparoscopic surgery, the doctor:

- a. Makes 4 to 6 small incisions (cuts) in your abdomen
- b. Uses instruments and a camera to loosen (free-up) the diseased bowel and remove it
- c. Sews or staples the healthy ends of your bowel back together or makes a stoma, where the bowel comes out of the abdominal wall

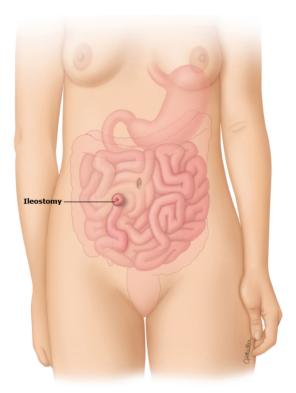
2. Open

During open surgery, the doctor:

- a. Makes a 4 to 8 inch cut in your abdomen
- b. Removes the diseased bowel
- c. Sews the healthy ends of your bowel back together or makes a stoma



Colostomy



Ileostomy

Notes	

Before Your Surgery



Clinic

You will have an appointment with one of the colorectal surgeons in the Digestive Health Clinic at:

- UI Hospitals & Clinics or
- UI Health Care–Iowa River Landing East

A plan of care will be made after the doctor goes over your medical history and talks with you. This book will help you through the surgery process if that is the plan of care you chose.

Our team includes:

- Surgeons
- Nurse practitioners
- Physician assistants
- Resident physicians
- Nurses
- Ostomy nurses/wound nurses

Please call any one of the team members above if you have questions or concerns along the way.

During your clinic visit, you will:

- Answer questions about your medical history
- Have a physical exam
- Sign the surgical consent forms
- Have labs drawn if needed
- Schedule radiology tests if needed, such as a
 - Chest xray
 - CT scan
 - MRI
 - Ultrasound
- Talk about the need to be seen by a heart, lung, or anemia specialist
- Make an appointment with Anesthesia if needed
- You may also have a flexible sigmoidoscopy if you have a rectal tumor. This helps us see the tumor. This is done in the clinic by your surgeon.

You will also get:

- Instructions about how to get ready for surgery
- Eating and drinking guidelines before surgery
- Instructions if you are on blood thinners or diabetic
- Prescriptions for bowel cleansing, if needed
- Special antibacterial soap to shower with on the night before and morning of surgery

Presurgical Evaluation Clinic

After your clinic visit, you may need to be seen in the Pre-Surgical Evaluation Clinic, or PEC. The PEC is located near Elevator F, on Level 1 at UIHC and and at Iowa River Landing, 4th floor. Appointment options in the PEC are:

- No appointment is needed for a nurse to review your records, but not contact you.
- Phone call:
 - A nurse will call you by phone. This call will last about 30 minutes.
- Appointment at UI Hospitals and Clinics in the PEC:
 - The nurses in the Surgery Clinic will make this appointment for you. Your appointment will last about 1 hour.

The PEC is open:

- Monday, Wednesday, Thursday, and Friday, 8 a.m. to 5 p.m.
- Tuesday, 8 a.m. to 6 p.m.

Call:

- 319-384-8906 to schedule an appointment
- 319-353-6684 if you have questions for Anesthesia

At your PEC visit, you may:

- Meet with a nurse practitioner or doctor who will review your medical history and do a brief physical exam
- Talk about which medicines to:
 - Stop taking before your surgery
 - Not take the day of surgery
 - Take the day of surgery
- Evaluate your fitness for surgery, including heart problems, kidney problems, diabetes, bleeding issues, lung problems
- Talk about the type of anesthesia you will need for surgery
- Talk about the comfort measures after your surgery
- Be screened for snoring and sleep problems like obstructive sleep apnea (OSA). If at risk, you may do a sleep study before surgery.



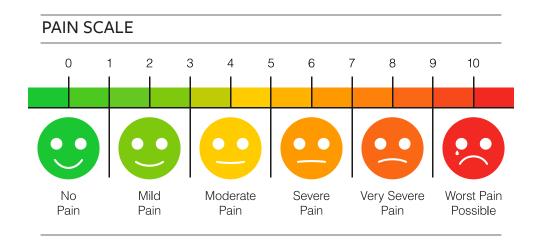


You may need to stop some of your regular medications before surgery. The PEC staff will tell you if you need to stop taking them.

Notes

Comfort control after surgery

Pain is normal after surgery. It is a normal part of the healing process.



You will need to get out of bed for walks and help care for yourself after surgery. It is important you are comfortable enough to do these things. There are many types of pain medicines we can give you. Not every patient can use each type though.

There will be pain medicine ordered for you during your hospital stay. People have different amounts of pain after the same surgery. The surgery team has a lot of experience treating pain and will do their best to keep you comfortable. It is important to keep these goals in mind while you recover from surgery:

- Able to take a deep breath
- Able to sit and walk
- Able to rest
- Able to talk with family and friends, watch TV, or read

At your clinic appointment, a person from the health care team will go over your medical history and medicines. If you have chronic pain or take narcotics often, you may have more pain after surgery than other patients. Your doctor may talk with the Anesthesia team about other types of medicine to keep you comfortable, such as an epidural, a pain block, or different types of intravenous (IV) medicine.

Your pain medicine will be specific to your age, medical conditions, and need. If you are over 60, your body does not break down medicine as well as it used to. The risk of falling and causing serious injury is higher as you get older. Your risk is also higher when you take pain medicine or are in the hospital. The surgery team will make sure your doses are safe.

Getting Ready for Surgery

Plan to be in the hospital for 3 to 7 days, depending on your surgery. When you leave the hospital, you will need some help from family or friends. It will be important to have help with meals and taking medicines. Make these plans before your surgery.

Before you come to the hospital, get your home ready by:

- Cleaning and putting away laundry
- Put clean sheets on the bed.
- Put the things you use often between waist and shoulder height so you do not have to bend down or stretch too much to reach them.
- Bring the things you are going to use often during the day downstairs. But remember, you will be able to go up steps after surgery.
- Buy the foods you like and other things you will need. Shopping may be hard when you first go home.
- Cut the grass, tend to the garden, and do all house work.
- Have someone get your mail and take care of pets and loved ones, if needed.
- Stop taking any vitamins, supplements, and herbs 2 weeks before your surgery.
- Stop taking ibuprofen (Motrin or Advil) and naproxen (Aleve) 1 week before surgery.
- If you are taking any medicines for chronic pain, please keep taking those until your surgery.

Other helpful tips to get ready for your surgery are:

- Eat a balanced diet; this helps you get better faster.
- Exercise to help you be as strong as possible. If you are able to walk, do so for 30 min a day in the month prior to elective surgery.
- Stop smoking. Stopping smoking 1 to 2 months before a surgery puts you at less risk of having breathing problems, blood clots, and infection, and it helps you heal faster.
- Follow the orders you were given about taking blood thinners and diabetes medicines.
- Stop drinking alcohol completely for a month before planned surgery.

Immunonutrition:

- This is a new way to decrease your risk of infection (up to two-fold).
- This is a proven to work in multiple studies and works better than plain nutrition supplement.
- It requires drinking 3 cartons/day of Ensure Surgery shake for 5 days before surgery and 5 days after surgery.
- The shake is not available in the stores, but can be ordered on-line from Walmart, Amazon, or Ensure websites.
- The cost of the shake is about \$60 per 5 day supply **before surgery**.
- You do not need to buy or bring post-operative 5 days' worth of the drink; it is available on your hospital menu. Its use after surgery will depend if your blood sugars are normal.

Your surgeon may not want you to take this is if you have newly or poorly controlled diabetes, as this will raise your blood sugars.

Pre-surgery checklist

Bring to the hospital:

- This book
- A list of your current medicines
- Insurance card
- Ear plugs
- Phone charger
- A copy of your Advance Directive form, if you have one
- 2 packs of chewing gum
- A book or something to do
- A change of comfortable clothes for when you leave the hospital
- Toiletries you may want
- Your CPAP or BiPAP, if you have one
- Medical devices and documents, such as insulin and insulin pumps
- Your cards for any medical devices, such as nerve/bladder stimulators or pacemakers

Do not bring to the hospital:

- A lot of money
- Your home medicines
- Valuables, such as jewelry or non-medical electronic equipment

Belongings you bring may need to go home with family or a friend.

For your safety, plan to:

- Have a Care Partner during your stay in the hospital.
- Have an adult with you to hear your discharge instructions and drive you home.
 - If you plan to take public transportation, an adult should travel with you.

Notes			

Day Before Surgery

Scheduled surgery time

A nurse will call you between 2 and 6 p.m. 1-2 days before your surgery to tell you what time to be at the hospital for your surgery. You will be called the Friday before if your surgery is on a Monday. Write the time down in the front of this book.

Please call 319-384-8039 if you do not get a call by 6 p.m.

We will do all we can to keep your surgery on time, but emergencies may change the schedule.

Bowel preparation

Most colon and rectal surgeries need a bowel prep, including oral antibiotics, before the surgery. This will help lower your risk of infection. If you do not do your bowel prep, your surgery may be canceled. Your doctor will tell you if you need a bowel prep. If you do, you will get prescriptions for the prep in the clinic. Please follow the directions.

1. Your doctor may want you to have nothing to eat or drink after midnight the day of surgery in certain cases. This will be written in the preoperative instructions.

Or

2. Your doctor may approve you to drink a certain amount and kind of fluids the day before your surgery. Follow these rules very closely! Your surgery may be canceled if you do not. If you have food or liquid in your stomach, you can choke during surgery.

Noon day before surgery: Start clear liquid diet

- Water
- Apple or white grape juice
- Plain broth
- Coffee or tea (do not use milk or creamer)
- Clear carbonated drinks such as ginger ale or lemon-lime soda
- Gatorade or other sports drinks
- Kool-Aid or other flavored drinks
- Popsicles
- Non-turbid clear protein beverages (Ensure Clear, Premier Protein, Fizzique, protein water)

Day Before Surgery continued

- 1 p.m.: Take Metronidazole (or Erythromycin) and Neomycin
- 2 p.m.: Take Metronidazole (or Erythromycin) and Neomycin
- 3 p.m.: Start drinking GoLYTELY, 1 cup every 10 minutes. Bowel movements usually start within an hour.
 - Drink 27 ounces or 3 1/3 cups (800 mL) of Gatorade or apple juice. Drink this after the bowel prep. If you do not have to do a prep, finish drinking the liquids by midnight.
- 11 p.m.: Take Metronidazole (or Erythromycin) and Neomycin

To view patient instructions, visit

uihc.org/health-topics/surgical-bowel-prep-frequently-asked-questions uihc.org/health-topics/surgical-bowel-prep-patient-instructions uihc.org/health-topics/hibiclens-shower-preventing-surgical-site-infections

Other important reminders

- Follow the instructions you were given about your blood thinner and diabetes medicines.
- The night before your surgery, wash with soap you were given.
- Do not shave your abdomen (stomach) or pubic hair. Shaving before your surgery gives you a higher chance of getting an infection. A person from the health care team will use clippers to get you ready for surgery if hair needs to be removed.

Notes			

Day of Surgery

Before you leave home

- Take a shower with the soap you were given.
- Take off nail polish, makeup, jewelry, and all piercings.
- Bring information about any implantable devices you have.
- Continue drinking clear liquids (p. 14 has the list). Avoid alcohol. Finish this by 2 hours before your scheduled surgery time.
- If you do not stop drinking 2 hours before your surgery, your surgery may be canceled or delayed.

Getting to the hospital

- Get to the hospital on the morning of surgery at the time you wrote on page 1.
 - This should be 2 hours before your surgery starts.
- Check in at the Day of Surgery area by Elevator H, Level 5 at your scheduled time.
- A person from the health care team will take you to a pre-op room and start getting you ready for surgery. Your family can stay with you. The care team will:
 - Take your blood pressure, pulse, temperature, and weight
 - Draw blood if needed and check your blood sugar
 - Start an IV
 - Have you change into a hospital gown
 - Put a warming blanket on you. Your body does much better during and after surgery when it is warm.
 - Clip the hair off your stomach. Do not shave your stomach at home.
- You will meet your anesthesia team.
- The resident doctor will see you and make sure:
 - You are still in good health
 - The bowel prep was finished
 - Answer questions you may have
 - Mark your stomach as the surgery site

You may be given a dose of Tylenol, celebrex, or gabapentin to take before surgery. These medicines help with pain after surgery. The anesthesia team will give you IV medicine right after surgery to keep you comfortable. Some patients may be offered a nerve block by the anesthesia team to help with post-op pain control.

A green bracelet will be put on your arm once all these things are done. This tells the care team you are ready to go to the operating room.

Day of Surgery continued

There will be a lot of double checking. It is to make sure you have the best outcome possible.

Operating room

When you go to the operating room, your family will wait in the Day of Surgery Lounge (Elevator H, Level 6). Your doctor will talk with them when your surgery is done.

In the operating room, the care team will:

- Put patches on you to monitor your heart
- Give you a shot of a blood thinner
- Put inflatable boots on your legs to help prevent blood clots during surgery
- Clean your skin again
- Double check your name, date of birth, and the surgery one last time
- Put you to sleep with medicine in your IV or gas through a mask. It works very fast.

After this, your surgeon will do your surgery with the help of a surgery resident and nurses.

During your surgery, the operating room nurse will call the volunteer in the Day of Surgery waiting room every 2 hours with updates.

Notes			

After Surgery

Recovery room (PACU)

When your surgery is done, the anesthesiologist will wake you up. When you are breathing on your own, you will be taken to the recovery room. Most patients stay there 1 to 2 hours. When the care team decides you are ready, you will be taken to your inpatient room on a stretcher. The volunteers in the Day of Surgery waiting room will tell your family your room number so they can join you there.

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

Inpatient unit

Your inpatient room will most likely be on 2 Roy Carver (Elevator F, Level 2). It can take more than 2 hours to get to a room if the hospital is full and other patients need to be discharged to make room for new patients. While most rooms are private, we cannot guarantee that you will have a private room, and you may have to share a room. Your family will be helped to your room once your nurse checks you in.

- The nurses will greet you and help you move into your bed.
- You may have a small tube in your bladder called a Foley catheter. We measure how much urine you are making and how well your kidneys are working.
- You will have an IV in your arm to give you fluid.
- You may need insulin to help lower your blood sugars even if you are not diabetic. Blood sugars can be elevated around the time of surgery (body stress response). We need to treat this in order to lower your risk of infection.
- You will get to drink clear liquids.
 - We limit the amount on the day of surgery so you do not overdo it.
- The care team will take your temperature, pulse, and blood pressure.
- You may be given oxygen.

While you are on the inpatient unit, you will:

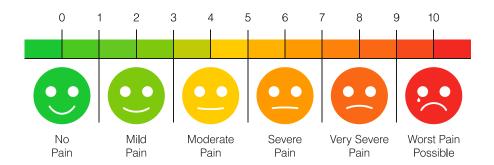
- Get a blood thinner shot each day to help prevent blood clots
- Get an incentive spirometer (shown right). It is a device to help you breathe deeply and keep your lungs open. You should use it 10 times an hour when you are awake.
- Most of your home medicines will be restarted. Some of your diabetes and blood pressure medications may not be given for several days.
- The nurses will get you up and out of bed 1 or 2 times that afternoon and evening, depending on what time you get to your room.



After Surgery continued

Comfort control after surgery

Keeping you comfortable is an important part of your recovery. Your nurse will start asking about your comfort level when you get to your room. They will use a scale, such as:



- 0 (no pain) to 10 (the worst pain you can imagine)
- Minor, moderate, or severe pain:
 - Minor pain: The discomfort makes it hard to concentrate
 - Moderate pain: Constant discomfort that makes it hard to sleep and relax
 - Severe pain: It hurts to take a deep breath; you cannot stand, walk, sleep, or concentrate.

You need to be able to:

- Take deep breaths
- Cough
- Move

Remember, pain is normal after surgery. People have different amounts of pain after the same surgery. The surgery team has a lot of experience treating pain and will do their best to keep you comfortable.

There will be pain medicine ordered for you during your hospital stay. There are many types of pain medicines we can give you.

Tylenol

You may be given Tylenol on a regular schedule while you are in the hospital. It does not have many side effects and it lessens the amount of narcotic pain medicine you will need. It is important you take it as scheduled.

Non-steroidal anti-inflammatory (NSAID)

These are medicines, such as ibuprofen, **celecoxib**, or Toradol (an IV medicine). They work a little differently than Tylenol, which is why they work well together. They also help lessen the amount of narcotic pain medicine you will need.

They have a few more side effects, so the surgery team will decide if they are right for you.

If they are not scheduled, you can ask for them when you have moderate pain.

Comfort control after surgery

These are medicines like morphine, Dilaudid, hydrocodone, and oxycodone. They come in IV and pill form. They work differently than Tylenol and NSAIDs. They work well to relieve pain when taken with Tylenol and NSAIDs.

They have more side effects but are usually needed the first few days to 2 weeks after surgery. They can:

- Make you dizzy
- Make you confused
- Put you at higher risk of falling
- Slow down how quickly you pass gas and stool

The surgery team will make sure your doses are safe based on your age and other medical conditions. It is best to not take narcotics if you are able to rest, take deep breaths, walk, visit with family and friends, watch TV, and have mild to moderate pain.

Non medicine

There are ways to cope with pain other than taking medicine. Try:

- Changing your position
- A heat or cold pack
- Listening to music
- Massage
- Meditation

Your nurse can help with these also.

If you have chronic pain or take narcotics often, we will work with our pain specialists to make you an individualized plan to keep you comfortable.

It is important to keep these goals in mind while you recover from surgery:

- Able to take a deep breath
- Able to sit and walk
- Able to rest and nap
- Able to talk with family and friends, watch TV, or read

Postop day 0 (day of surgery)

Diet

You will be able to drink clear liquids, such as gelatin, tea, broth, or protein drinks. You can drink these clear liquids, but do not have caffeine:

- Water
- Apple or white grape juice
- Decaf coffee or tea (do not use milk or creamer)
- Clear protein drinks (Ensure Clear)
- Gatorade or other sports drinks
- Kool-Aid or other flavored drinks
- Popsicles or jello

Do not use a straw or drink carbonated liquids, such as soda, until you are passing gas.

In certain circumstances, your surgeon may want you to start general diet right away after surgery.

Activity

The nursing staff will help you get up to walk 1 or 2 times. Walking is important to prevent pneumonia, blood clots, and pressure sores, and it encourages your bowel to start making gas and stool (poop).

Comfort

It is normal to have some pain after surgery. You will have IV and/or oral pain medicine to help you stay comfortable. The pain medicine will not take away all of your pain. You should be able to walk, sleep, talk with family, or watch TV though. If you cannot do those things, have your nurse let the team know, and they will come to check you.

Sleep

It is common to have trouble sleeping the first few days after surgery. The nurses will take your vital signs often, and you will be getting different medicines, so uninterrupted sleep may be difficult. Sleep aids are usually not given due to interactions with anesthesia, pain medicine, and hospital environment. Short naps during the day are important. Let the team know if you are really struggling to get enough sleep.

Anesthesia effects

You may have nausea and vomiting in the first 24 hours after surgery from the anesthesia. Ask your nurse if you need anti-nausea medicine.

Catheters and drains

You may have a catheter in your bladder to drain urine (pee) after surgery. It will stay in for 1 to 14 days depending on your surgery.

You may have a drain in your abdomen as well. It will stay in during your hospital stay. Some drains need to stay in longer.

The nurse practitioner and/or resident doctors will let you know how long your catheter and/or drain will need to stay in. If you have to go home with these, the team will make sure you understand how to take care of them.

Notes			

Postop day 1

Diet

You will be able to drink clear liquids, such as gelatin, tea, broth, or protein drinks. Do not use a straw or drink carbonated liquids, such as soda until you are passing gas.

Most patients can have a general low fiber diet starting breakfast or lunch. The low fiber diet does not allow raw fruits, raw vegetables, or whole grains.

Activity

The nursing staff will have you get up and walking 4 times and sitting in a chair 4 times, so you are out of bed for a total of 3 hours. This is one way you can really speed up your recovery!

The nursing staff will give you special wipes for bathing. The wipes help lower your risk of infection.

Comfort

You will get less IV fluids and IV pain medicine. You will start on pain pills. Ask your nurse for the pain pills when you are having pain. Pain pills last much longer than IV medicine and often work better.

Sleep

Keep taking naps. You may be able to get longer periods of sleep the 2nd night after surgery.

Catheters and drains

Most patients have their urinary catheter taken out.

Discharge planning

You may meet with the ostomy nurses, the dietitian, and/or the social worker to talk about the care and resources you will need when you leave the hospital. If you plan on going to a skilled nursing facility at discharge, let us know.

Notes

Postop day 2

Diet

Most patients can have a general low fiber diet. If you are nauseated, bloated, or do not feel hungry, you may need to stay on the clear liquid diet longer. Your care is specific to you.

Activity

The nursing staff will have you up and walking 6 times and sitting in the chair 6 times, so you are out of bed a total of 4 hours. This is really important!

Many patients are able to shower now. If not, the nursing staff will give you special wipes for bathing. The wipes help lower the risk of infection.

Comfort

Most IV fluids and IV pain medicines are stopped.

Catheters and drains

Your surgery team will look at your need for these each day.

Discharge planning

You may meet with the ostomy nurses, the dietitian, and/or the social worker to talk about the care and resources you will need when you leave the hospital.

Notes			

Postop days 3 to 7

Everyone's body is a little different and will recover at a different pace. During this time, you will keep working on eating, drinking, walking, and waiting for gas and stool to come.

The surgeon will decide you are ready to go home based on:

- How well you are eating and drinking
- How you are walking
- If you are urinating on your own
- If you are passing gas and stool
- How your incision looks

If you have an ostomy or need wound care, you will have a visiting nurse come to your home to help. If you need some extra help, you may need to go to a skilled nursing facility for a few weeks. We will make all of these arrangements for you.

You may go home with a surgical drain. If so, the nurses will show you how to empty it. Keep track of how much drainage comes out on a piece of paper and bring that to your first postop visit. It may be taken out then.

The discharge instructions will be reviewed by the surgery team and the nursing staff.

You will leave the hospital with written instructions about how to care for yourself and prescriptions for pain medicine. Your care team will go over the instructions and prescriptions with you. We encourage you to fill your prescription at UI Hospitals & Clinics so that if there is a problem, we are here to fix it.

Pain medicines are rarely refilled. It is important you take your pain medicine wisely. If you are going to run out before your first postop visit, call in to talk about it before you run out. You may need to come to the clinic for your doctor to check you and for the refill. The number of pills you are given at discharge are based on how many you used at the hospital. Please remember to take them only when needed and only for pain.

Notes

Complications that Can Delay Leaving the Hospital

Wound Infection

We do everything we can to prevent an infection, but it does happen. If you get a wound infection, your incision may be:

- Red
- More painful
- Have drainage

The team may open the incision to let the infection drain or put you on antibiotics. You may have an open wound that needs dressing changes at home. We will talk about this and arrange help for you before you leave the hospital.

Postoperative nausea and vomiting

You may feel sick to your stomach after surgery. We can give you medicine to help.

If you feel sick, eat less food. Switch to a liquid diet. Small frequent meals or drinks are best. As long as you can drink and keep yourself hydrated, the stomach upset will likely pass.

Postoperative ileus

One of the most common problems after surgery is your bowel can shut down. It is called an ileus. This means food and gas have trouble passing through your intestines. If you do get an ileus, it usually lasts 2 to 3 days.

The Enhanced Recovery after Surgery (ERAS) program does everything possible to lower your chance of getting an ileus. The best way to avoid it is to:

- Lower the amount of narcotic pain medicines you take
- Get up as much as possible
- Chew gum
- Eat small amounts of food and drinks

Anastomotic leak

This is a serious problem. It means the 2 ends of the bowel we joined together do not heal. If this happens, it is usually within 5 to 14 days after surgery. Symptoms of a leak are:

- Severe abdominal pain
- Fever
- Vomiting

You may need to have a drain placed. Sometimes another surgery is needed with a temporary ostomy.

Leaving the Hospital

Before you leave the hospital, you will be given:

- A copy of your discharge instructions
- A list of any medicines you may need
- A prescription for pain medicine
- Ostomy supplies, if you have a new ostomy
- Instructions about checking for and preventing dehydration from the stoma nurses and surgery team if you have an ileostomy. It is very important you follow those instructions closely.
- Instructions on when to come back to have your staples removed if you have staples. It will be within 10 to 14 days.
- Instructions on when to come back to see your surgery team

Before you leave the hospital:

- We will ask you to tell us how you will get home and who will stay with you.
- We will make sure you have enough oxygen in your tank for the ride home if you use oxygen.
- Be sure you have all of your belongings that may have been stored in safe keeping.
- We will ask you to turn in your activity log.

Your surgery team and nursing staff will help you make plans for when you leave the hospital. Please let us know:

Any special needs you have after your hospital stay.

Notes			

Postop days 3 to 7

Most problems after surgery happen after you go home from the hospital. It is important you call the surgery clinic right away if you have:

- A fever higher than 100.4
- Nausea and vomiting, and you cannot keep liquids down
- Redness or any kind of drainage from your incisions
- Problems urinating or passing gas or stool
- Feel very tired or short of breath
- Leg pain
- A lot of ileostomy output or diarrhea
- Any other concerns that you think are not normal

You will be seen back in the clinic for a postop check. It will be 1 to 2 weeks after surgery if you have an ileostomy or need staples taken out. It will be in 2 to 4 weeks if you do not have these things. The appointment will be made for you before you leave the hospital.

Your postop check

When you come back you will see either a nurse practitioner or the surgeon.

Most people:

- Are off their pain medicine
- Have healed incisions
- May still need to take naps. Your energy level and appetite will keep getting better for 2 months after surgery.
- Will be feeling much more comfortable with their ostomy. If you need to see the ostomy nurse, we will call them to the clinic.

It is usually a short visit. If you need more care at that time, we will talk about and arrange it.

Phone numbers

If you have questions or concerns after you leave the hospital, please call us right away.

It is easiest to reach a person from your health care team between 8 a.m. and 4 p.m.

Please call:

- Camille Rasmussen (PA): 319-384-9841, Monday through Friday, 8 a.m. to 4 p.m.
- Hospital operator: 319-356-1616 after 4 p.m. on weekdays, weekends, or holidays
 - Ask to talk to the surgery resident on call.
 - The resident on call is taking care of patients in the hospital so it may take a little time for your call to be returned.

Notes			

Wound Care

Your wound may be slightly red and uncomfortable for 1 to 2 weeks after your surgery. Call us if your wound is:

- Very red
- More painful
- More swollen
- Any type of leaking fluid

You can shower and let the soapy water wash over your incision. Do not scrub it or put anything on it.



Do not soak in a bathtub, swimming pool, or hot tub for 1 month after surgery.

The wound will "soften up" in several months.

It is common to have lumpy areas in the wound near your belly button and at the ends of the incision.

If you have staples, you will come back to clinic in 10 to 14 days to have them taken out. If you have glue on your incisions, it will peel off in about 2 weeks.

Bowel function

Your bowel function will take several weeks to settle down, and it may be unpredictable at first. For most people, it will get back to normal with time.

People may have different bowel problems, such as:

- Irregular bowel habits
- Bowel movements that are loose
- Trouble controlling bowel movements with accidents or urgency
- A feeling that you need to keep having a bowel movement even if you have had several in a row

The first 2 weeks after your surgery, make sure you:

- Eat regular meals
- Drink plenty of liquids
- Take walks often

It is important to let us know if you are having very watery diarrhea more than 6 times each day. There is a bacterial infection that we may want to test you for if you are having a lot of watery diarrhea.



Diarrhea

Most problems with diarrhea go away with time.

A firmer stool is easier to hold in and pass more completely. The first step to improve frequent or loose stools is to bulk up the stool with fiber. Metamucil is the most common type of fiber. You can get it at any drug store. Talk with your surgeon before using this medicine, especially if you have an ileostomy.

- Start with 1 teaspoon mixed into food (like yogurt or oatmeal) in the morning and evening.
- Try not to drink any liquid for 1 hour after you take the fiber. This will let the fiber act like a sponge in your intestines and soak up all the extra water.
- Use it for 3 to 5 days.
- Use 1 teaspoon more every 3 to 5 days until you get your desired effect. You can use up to 3 teaspoons 2 times a day.

If Metamucil does not work, try over-the-counter Loperamide (Imodium), an antidiarrheal medicine.

- Take 1 tablet in the morning and evening or 30 minutes before meals.
- Take up to 8 of tablets each day.

Constipation

People can also be constipated after surgery from the narcotic pain medicine. If you have constipation for more than 2 days, take a laxative such as Milk of Magnesia. Do not use suppositories or enemas after surgery.

Abdominal pain

You may have gas pains during the first week after your surgery. This pain usually lasts for a few minutes but goes away between spasms.

Call us if you have:

- Severe pain lasting more than 1 to 2 hours
- A fever
- Feel sick

Urinary function

After surgery you may get a feeling that your bladder is not emptying all the way. This usually gets better with time.

Call us if you:

- Are not urinating
- Have stinging or burning while urinating (this is a sign of infection)
- You have any other concerns

Diet

It is normal to not have much of an appetite for a few weeks after surgery.

You may be on a low fiber diet for 4 weeks after your surgery. The registered dietitian will talk with you about this while you are in the hospital. It is very easy to follow at home. Do not eat:

- Raw fruits
- Raw vegetables
- Whole grains

The above food groups may cause a blockage.

You may find some foods cause loose stools. If this happens, do not eat those foods for a few weeks after surgery. After a few weeks, try them again 1 at a time.

If you have an ileostomy:

- Do eat foods that can thicken the stool, such as:
 - Bananas
 - White bread
 - Pasta
 - Applesauce
 - Boiled rice or noodles
 - Tapioca
 - Cheese
 - Oatmeal
 - Potatoes (without skin)
 - Pretzels
 - Creamy peanut butter
 - Marshmallows
- Do not eat:
 - Raw fruits
 - Raw vegetables
 - Whole grains
 - Popcorn
 - Nuts
 - Vegetables with a skin, such as beans, peas, corn

- Eat 5 to 6 small meals throughout the day. Do not eat 3 large meals.
- Take small bites and chew food well.
- Sip liquids all day. Do not drink a large amount at one time.
- Drink 10 to 12 cups (4 to 5 refillable UI Hospitals & Clinics mugs) of different liquids each day. This is about 2000 ml (64 ounces).
 - Gatorade, green tea, milk, watered down fruit juice, and lemonade work well.
 - Drinks with a lot of sugar can cause diarrhea.
 - Alcohol, coffee, tea, soda, and sugary drinks (such as juice) can cause dehydration. They should not be used to help replace your liquids.

Hobbies and activities

Plan to walk 3 or 4 times each day after you leave the hospital.

You should:

- Be able to climb stairs when you leave the hospital.
- Start doing many of your hobbies soon after your surgery. This will help you recover.

You should not:

- Lift more than 10 pounds for 4 to 6 weeks
- Play contact sports for 6 weeks
- Put anything into your rectum for 6 weeks

Remember, it can take 2 to 3 months to fully recover. You may be tired and need an afternoon nap for 4 to 6 weeks after your surgery. Your body is using its energy to heal your wounds on the inside and out.

Work

You should be able to go back to work 4 to 6 weeks after your surgery. If your job is a heavy manual job, you should not do heavy work until 6 weeks after your surgery.

Check with your employer on the rules and policies of your workplace. This is important to do before your surgery.

If you need Family and Medical Leave Act (FMLA) paperwork filled out for your employer, bring it with you to the hospital or fax it to our office at 319-356-4609.

Driving

You may drive when you are off narcotic medicines for 24 hours and pain-free enough to react quickly with your braking foot. For most people this is about 2 weeks after surgery.



Sexual Relationships

You should be able to start having sexual intercourse after you have recovered from your surgery and you are not feeling any discomfort.

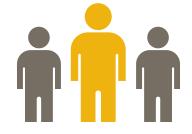
Some people having surgery near their pelvis may have sexual problems.

Men may experience problems with erection and ejaculation. This can happen because of damage to the nerves in the pelvis by radiation or surgery. Your surgeon will try not to damage nerves during surgery, but sometimes they may be damaged.

Women may experience pain during intercourse.

It is important to talk to your partner about how you are feeling. You should remember that your feelings can affect how you feel about yourself and your intimate relationships. Talking about your feelings with your partner will help with stress and anxiety.

Please talk to your surgeon if you are having problems. He or she may choose to refer you to a specialist who may be better able to help you.



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

Notes

Ileostomy Care Instructions

An ostomy is a surgically created opening on the abdomen for the passage of stool. The stoma is the actual end of the small or large bowel that can be seen protruding through the abdominal wall. The most common types of ostomies are ileostomies and colostomies.

A colostomy is made of the colon or large intestine. The stool that comes out is soft, and bowel habits are a little more predictable than with an ileostomy. This is similar to stool that comes from the anus.

An ileostomy is made from your small bowel. Your small bowel breaks down and absorbs nutrients from your food. This stool is more liquid and contains digestive enzymes. It has less smell.

Either type of ostomy can be permanent or temporary. A temporary ostomy may be made to allow bowel further down to heal after surgery.

The following instructions will help you at home with your new ostomy.

Before you leave the hospital, you should have:

- Ostomy supplies for 4 pouch changes
- A follow-up outpatient appointment with your surgeon
- Prescriptions for ostomy supplies (if needed)
- A chart for you to record your intake and output at home
- A graduate cylinder to help you measure your output



People with an ileostomy may have mucus or stool coming from their rectum. This is not a cause for alarm.

Your large bowel absorbs water from your stool. When you have an ileostomy, food and fluid does not go through your large bowel. If you have diarrhea and lose too much water, you can be at high risk for dehydration. Normal output will be liquid to applesauce like.

Dehydration is the most common reason people with an ileostomy have to come back to the hospital in the month after their surgery.

Please call us if you have any signs and symptoms of dehydration, such as:

- Nausea
- You are more tired than normal
- Dizziness
- Urine that is dark in color and less in amount
- A hard time keeping the bag on
- Abdominal pain
- Fever

To prevent dehydration you should:

- Drink 10 to 12 cups (4 to 5 refillable UI Hospitals & Clinics mugs) of different liquids each day. This is about 2000 ml (64 ounces).
 - Gatorade, green tea, milk, very dilute fruit juice, and lemonade work well.
 - Drinks with a lot of sugar can cause diarrhea.
 - Alcohol, coffee, tea, soda, and sugary drinks (such as juice) can cause dehydration. They should not be used to help replace your liquids.
- Use medicine to help thicken your stool, such as:
 - Metamucil (Psyllium)
 - Start by using 1 teaspoon each day in 4 ounces of juice or water for 2 to 3 days.
 - Increase to 2 teaspoons each day in 4 ounces of juice or water for 2 to 3 days.
 - Increase to a final dose of 3 teaspoons each day in 4 ounces of juice or water.
 - Imodium (Loperamide HCl)
 - Take 1 tablet by mouth before breakfast and just before supper.
- Measure your ileostomy output with your graduate cylinder and follow the chart on when to call.
- Call sooner rather than later if you:
 - Think your ileostomy output is more than 2000 ml
 - Are getting dehydrated

Date	Morning	Afternoon	Evening	Bedtime	Total

Measure your ileostomy output for 2 weeks.



RED LIGHT: More than 2000 ml of output in 24 hours = call due to severe risk of dehydration. **YELLOW LIGHT:** More than 1500 ml in 24 hours **=** call due to moderate risk of dehydration. **GREEN LIGHT:** Less than 1000 ml in 24 hours. There is little risk of dehydration.

Please call:

- Surgery Clinic: 319-384-9841, Monday through Friday, 8 a.m. to 4 p.m.
- Hospital operator: 319-356-1616 after 4 p.m. on weekdays, weekends, or holidays
 - Ask to talk to the surgery resident on call.
 - The resident on call is taking care of patients in the hospital so it may take a little time for your call to be returned.

Notes	

Colorectal surgery: Patient checklist

Our goal is to help you have a safe transition home after your surgery. We will teach you everything you need to know about how to care for your ostomy and monitor your ostomy output.

Day before surgery	Action	Check when done	RN Initials
Medicines	 Take your bowel preparation (prep) if needed. Follow orders given to you about how to take your blood thinner and diabetes medicines. 		
Eating and drinking guidelines	 If you are doing a bowel prep, keep eating as normal until noon. At noon, start drinking clear liquids. Keep drinking clear liquids throughout evening. If you are not doing a bowel prep, keep eating as normal until midnight. 		
Actions	 Take a shower the evening before your surgery with the soap given to you. Call 319-384-8039 if you do not get a call from the O.R. by 6 p.m. with your arrival time. 		
Morning of surgery	Action	Check when done	RN Initials
Medicines	 Take any medicines you were told to take the morning of your surgery. 		
Eating and drinking guidelines	 Do not eat the morning of your surgery. Drink 8 ounces of clear liquids until 2 hours before your scheduled surgery. 		
Actions	 Take a shower on the morning of your surgery with the soap given to you. Take off nail polish, makeup, jewelry, and all piercings. Bring your CPAP machine with you, if you use one. Bring this book with you. Bring information on your implanted devices (such as: pacemaker, pain pumps, AEDs, or nerve stimulators) 		
Going home	Action	Check when done	RN Initials
Getting ready to go home	 Be sure you have: A ride home Extra oxygen (if you need it) All of your belongings that may have been stored in safe keeping while you were in the hospital 		

Notes	

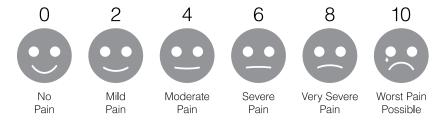
My Activity Log

Please use the following sheets to keep track of your daily activities after your surgery. You can check yes or no for each activity. Give these sheets to your nurse before you leave the hospital.

Night of surgery

With help:

I walked.	□ Yes □ No
I did deep breathing and coughing exercises 10 times each hour while I was awake.	
I was offered sips of clear liquids.	□ Yes □ No



Day 1 after surgery

With help, did you do the following?

Activities		
I sat in the chair for my meals: (Your goal is to sit 4 times.)		
Morning	\square Yes	\square No
Afternoon	□ Yes	\square No
Evening	\square Yes	\square No
I sat in my chair during other times. (Your goal is to sit for 3 hours total.)	□ Yes	□ No
I walked down the hall times today. (Your goal is to walk 4 times.)		
Food and drink		
I had:		
Nothing	\square Yes	\square No
Liquids	□ Yes	\square No
Solid food	\square Yes	\square No
I chewed gum:		
Morning	□ Yes	□ No
Afternoon	□ Yes	
Evening	□ Yes	
Elimination		· -
My catheter came out today.	□ Yes	□ No
I am peeing on my own.	□ Yes	□ No
I am passing gas.	□Yes	□No



Day 2 after surgery

With less help, did you do the following?

Activities		
I sat in the chair for my meals: (Your goal is to sit 6 times.)		
Morning	□ Yes	□ No
Afternoon	□ Yes	□ No
Evening	\square Yes	□ No
I sat in my chair during other times. (Your goal is to sit for 4 hours total.)	□Yes	□ No
I walked down the hall times today. (Your goal is to walk 4 times.)		
Food and drink		
I had:		
Nothing	□ Yes	□ No
Liquids	□ Yes	□ No
Solid food	\square Yes	\square No
I chewed gum:		
Morning	□ Yes	□ No
Afternoon	\square Yes	□ No
Evening	□ Yes	□ No
Elimination		
My catheter came out today.	\square Yes	□ No
I am peeing on my own.	\square Yes	□ No
I am passing gas.	\square Yes	□ No



Day 3 after surgery

Without any help, except for a cane or walker, did you do the following?

Activities		
I sat in the chair for my meals: (Your goal is to sit 6 times.)		
Morning	\square Yes	\square No
Afternoon	\square Yes	\square No
Evening	\square Yes	\square No
I sat in my chair during other times. (Your goal is to sit for 4 hours total.)	□ Yes	□ No
I walked down the hall times today. (Your goal is to walk 4 times.)		
Food and drink		
I had:		
Nothing	\square Yes	\square No
Liquids	\square Yes	\square No
Solid food	\square Yes	\square No
I chewed gum:		
Morning	□ Yes	□ No
Afternoon	□ Yes	
Evening	□ Yes	
Elimination		
My catheter came out today.	□ Yes	□ No
I am peeing on my own.	□ Yes	
I am passing gas.	□ Yes	



Day 4 after surgery

Without any help, except for a cane or walker, did you do the following?

Activities		
I sat in the chair for my meals: (Your goal is to sit 6 times.)		
Morning	\square Yes	\square No
Afternoon	□ Yes	\square No
Evening	\square Yes	\square No
I sat in my chair during other times. (Your goal is to sit for 4 hours total.)	□Yes	□ No
I walked down the hall times today. (Your goal is to walk 4 times.)		
Food and drink		
I had:		
Nothing	\square Yes	\square No
Liquids	□ Yes	\square No
Solid food	\square Yes	\square No
I chewed gum:		
Morning	□ Yes	□ No
Afternoon	□ Yes	□ No
Evening	□ Yes	□ No
Elimination		
My catheter came out today.	\square Yes	\square No
I am peeing on my own.	\square Yes	\square No
I am passing gas.	□ Yes	\square No



Day 5 after surgery

Without any help, except for a cane or walker, did you do the following?

Activities		
I sat in the chair for my meals: (Your goal is to sit 6 times.)		
Morning	\square Yes	\square No
Afternoon	\square Yes	\square No
Evening	\square Yes	\square No
I sat in my chair during other times. (Your goal is to sit for 4 hours total.)	□ Yes	□ No
I walked down the hall times today. (Your goal is to walk 4 times.)		
Food and drink		
I had:		
Nothing	\square Yes	\square No
Liquids	\square Yes	\square No
Solid food	\square Yes	\square No
I chewed gum:		
Morning	□ Yes	□No
Afternoon	□ Yes	
Evening	□ Yes	
Elimination		
My catheter came out today.	□ Yes	□No
I am peeing on my own.	□ Yes	□ No
I am passing gas.	□ Yes	□No



Day 6 after surgery

Without any help, except for a cane or walker, did you do the following?

Activities		
I sat in the chair for my meals: (Your goal is to sit 6 times.)		
Morning	\square Yes	□ No
Afternoon	\square Yes	□ No
Evening	\square Yes	\square No
I sat in my chair during other times. (Your goal is to sit for 4 hours total.)	□ Yes	□ No
I walked down the hall times today. (Your goal is to walk 4 times.)		
Food and drink		
I had:		
Nothing	\square Yes	□ No
Liquids	\square Yes	□ No
Solid food	\square Yes	\square No
I chewed gum:		
Morning	□ Yes	□ No
Afternoon	□ Yes	□ No
Evening	□ Yes	□ No
Elimination		
My catheter came out today.	\square Yes	□ No
I am peeing on my own.	\square Yes	□ No
I am passing gas.	□ Yes	\square No



Day 7 after surgery

Without any help, except for a cane or walker, did you do the following?

Activities		
I sat in the chair for my meals: (Your goal is to sit 6 times.)		
Morning	\square Yes	\square No
Afternoon	\square Yes	\square No
Evening	\square Yes	\square No
I sat in my chair during other times. (Your goal is to sit for 4 hours total.)	□ Yes	□ No
I walked down the hall times today. (Your goal is to walk 4 times.)		
Food and drink		
I had:		
Nothing	\square Yes	\square No
Liquids	\square Yes	\square No
Solid food	\square Yes	\square No
I chewed gum:		
Morning	□ Yes	□No
Afternoon	□ Yes	
Evening	□ Yes	
Elimination		
My catheter came out today.	□ Yes	□No
I am peeing on my own.	□ Yes	□No
I am passing gas.	□ Yes	□No



Questions to answer before your surgery

	Where did you get this book? ☐ At my surgeon's office ☐ When I was admitted to hospital ☐ The pre-admission unit ☐ On the unit I was admitted to after surgery	
,	Did you drink a bowel prep, such as Pico Salax or Golytely, to clean out your lyou surgery? \Box Yes \Box No	powel before
	Did you bring chewing gum with you? \Box Yes \Box No	
	Were you taught that: You would dangle your legs out of bed within 4 hours after surgery? Yes No You are able to drink liquids the day of surgery? Yes No You are asked to chew gum after surgery to help you pass gas? Yes No You would eat your meals in a chair, out of bed? Yes No You are able to eat solid food the day after surgery? Yes No You are able to eat solid food the day after surgery? Yes No Your length of stay is expected to be 3 days after a colon surgery or 4 days after yes No	ter a rectal surgery:
	Were you encouraged to drink Gatorade or apple juice the night before your s \square Yes \square No	urgery?
	Were you encouraged to drink Gatorade or apple juice 2 hours before your su \square Yes \square No	rgery?
7.	When did you last have a drink before your surgery?	(time and date)
8.	When did you last eat solid food before your surgery?	(time and date)

Feedback

Please use the lines below to give us feedback about the ERAS program. Give this sheet to your nurse before you leave the hospital.		



University of Iowa Hospitals and Clinics 200 Hawkins Drive Iowa City, IA 52242