Information for Patients undergoing Colon Resection for Benign and Malignant Conditions

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PLEASE READ THIS SHEET BEFORE YOU CONSENT TO YOUR SURGERY

Introduction
The large intestine is made up of the colon (upper 2/3) and rectum (the lower 1/3 or 8 inches). This part of the digestive tract carries the remains of digested food from the small bowel and gets rid of it as waste through the opening to the back passage (anus). Cells that line the colon and rectum may begin to grow out of control, forming a polyp or tumor (a growth of abnormal cells). The colon has four sections: the ascending colon, the transverse colon, the descending colon and the sigmoid colon. Tumors can start in any of these areas or in the anal opening. Tumors start in the innermost layer and can grow through some or all of the other layers. Eventually they can spread to other organs (metastasis).

The Operation
Surgery is the main treatment for tumors of the bowel. Removal of the diseased bowel is the first treatment for a tumor of the bowel. The goal of the surgery is to give you the best chance of cure through total removal of the tumor or polyp. Usually the tumor or polyp and a length of normal bowel on either side of the tumor (as well as nearby lymph nodes) are removed. The healthy parts of the bowel are then stitched or stapled together (anastomosis). If it is not possible to join the bowel back together, an opening (stoma) will be made on the outside of the body for waste to pass out of the body. This is called an ostomy and is made to allow waste to pass through an opening in the abdominal wall. Sometimes, a temporary ostomy is needed until the joined bowel has healed, and then it can be reversed at a second operation. However, in some cases, the colostomy is permanent and there will always be an opening on the skin for bowel waste to pass through. A number of different surgical procedures are used depending on where the tumor is. This will be reviewed in detail by your surgeon.

General Risks of Surgery
There are risks with any operation including:
• Secretions may collect in the lungs causing chest infection.
• Clotting may occur in the deep veins of the leg. Rarely part of this clot may break off and go to the lungs. This can be life threatening.
• Circulation problems to the heart or brain may occur which could result in a heart attack or stroke.
• Death is possible during or after an operation due to severe complications.
<table>
<thead>
<tr>
<th>Risk</th>
<th>What happens</th>
<th>What can be done</th>
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<tbody>
<tr>
<td>Leakage of bowel fluid inside the abdomen</td>
<td>Leakage of bowel fluid at the site where the bowel was stitched or stapled back together.</td>
<td>Further surgery may be required.</td>
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<td>Ileus</td>
<td>The bowel is paralyzed leading to abdominal bloating, and vomiting.</td>
<td>Treatment is to deflate the bowel with suction, using a tube (nasogastric tube) put through the nose and into the stomach.</td>
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<tr>
<td>Wound Infection</td>
<td>The wound may become infected.</td>
<td>This may be treated with antibiotics given intravenously and/or by mouth. The wound may need to be opened to drain.</td>
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<tr>
<td>Urinary Tract Infection</td>
<td>Germs enter the tube leading to the bladder and cause infection.</td>
<td>Mild cases may clear up without treatment. Usually antibiotics are used to treat the infection.</td>
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<td>Possible stoma problems:</td>
<td>1. The blood supply to the bowel may fail and cause damage to the bowel.</td>
<td>1. This may need further treatment.</td>
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<tr>
<td>1. Loss of blood supply</td>
<td>2. Stoma prolapse when some of the bowel sticks out too far past the skin.</td>
<td>2. For minor prolapses, no further surgery is required. For more serious cases, further surgery may be needed.</td>
</tr>
<tr>
<td>2. Stoma Prolapse</td>
<td>3. Parastomal hernia when the blood supply to the bowel may fail and cause damage to the bowel.</td>
<td>3. Minor hernias may need no further surgery. Larger hernias may need more surgery.</td>
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<tr>
<td>Hernia and Local Skin Irritation</td>
<td>4. Local skin irritation, reddening of the skin and a rash in reaction to the glue used to stick the stoma bag.</td>
<td>4. Changing the type of stomal bag usually treats this.</td>
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<tr>
<td>(Stoma is the opening of the bowel onto the skin.</td>
<td></td>
<td></td>
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<tr>
<td>Hernia is the Same as a rupture)</td>
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<tr>
<td>Post operative bleeding</td>
<td>Bleeding inside the abdomen. The abdominal drain may measure this.</td>
<td>A blood transfusion may be needed. Sometimes, further surgery is required to stop the bleeding.</td>
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<tr>
<td>Damage to the ureter</td>
<td>Rarely, during surgery, the ureter, (tube from the kidney which brings urine from the to the bladder), may be damaged.</td>
<td>This may require an additional procedure. Preoperative guiguides are often inserted. Often inserted to prevent this.</td>
</tr>
<tr>
<td>Bladder may not empty properly or may empty without warning</td>
<td>A urinary bladder problem where there is abnormal emptying of bladder. It may empty without warning or may not empty at all.</td>
<td>A tube (catheter) into the bladder may be used to drain the urine. Away, medications may be prescribed.</td>
</tr>
<tr>
<td>Sexual problems</td>
<td>Men may be unable to get an</td>
<td>For both men and women, time</td>
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erection or keep an erection. It may also mean that they cannot ejaculate properly. In women it may cause mild discomfort during intercourse. It may improve the condition. Most are treatable with medication. In some, it is untreatable and permanent.

<table>
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<tr>
<th>Condition</th>
<th>Description</th>
<th>Precaution</th>
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<td>Bowel blockage</td>
<td>Adhesions (bands of scar tissue) may develop inside the abdomen and the bowel may block. This a short term and long term complication.</td>
<td>This may need more surgery.</td>
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<tr>
<td>Change in bowel Habits</td>
<td>Bowel habits will change. Stools may be looser, smaller and more frequent. There may be some leakage of stools particularly at night depending on the type of surgery.</td>
<td>In most people, this improves time, without further treatment.</td>
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<tr>
<td>Increased risk in obese patients</td>
<td>An increased risk of wound infection, chest infection, heart and lung complications and thrombosis.</td>
<td>The risk can be reduced by weight loss prior to surgery.</td>
</tr>
<tr>
<td>Increased risk in Smokers</td>
<td>An increased risk of wound infection, chest infection, heart and lung complications and thrombosis.</td>
<td>Giving up smoking before the operation will help reduce the risk.</td>
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</tbody>
</table>

**Preoperative Instructions**

Detailed preoperative instruction will be given to you by our scheduling coordinator. **Do not hesitate to call or email if at any time you have questions.** Preoperative preparation varies depending on patient, type of operation and physician and will be explained by you doctor. In order to reduce out of pocket expenses, it is best before undertaking any testing to check with your insurance carrier to verify that the center administering the testing participates with your insurance company. In general, preoperative preparation includes:

- Blood work, EKG, chest x-ray and urinalysis. These are not performed at FCRS but may be done at the hospital’s preop testing center, an independent lab or your primary MD’s office.

- CAT/PET/MRI scans- generally performed at the hospital or a free standing radiology center

- Medical or Cardiac Clearance- may be recommended by your surgeon depending on your underlying medical condition. This is always performed by another physician who may request additional testing prior to surgery.

- Bowel Prep- Preoperative bowel cleansing may be required by your surgeon. Specific written instruction regarding this will be provided to you.
After the operation the nursing staff will closely watch you until you have recovered from the anesthetic. You may even be cared for in the intensive care unit immediately following your surgery. The recovery period after colon surgery varies. It usually involves a stay in the hospital from 3-7 days in uncomplicated cases.

On return from your surgery you will have a catheter (plastic tube) in the bladder to measure and drain your urine. You will also have intravenous fluids (a drip) through which antibiotics and pain medication will be given. The drip will remain in place until you are able to drink enough fluids. You will be wearing elastic (anti-embolism) stockings. These are tight fitting stockings that are used to reduce the risk of blood clots forming in your legs.

**Activity**

It is very important after surgery that you **start moving as soon as possible**. This helps to prevent blood clots forming in your legs and possibly going to your lungs. This can be fatal. Also **you need to do deep breathing exercises**. In order to assist you in this, your nurse will instruct you on the use of an “incentive spirometer” a simple mechanical device you will be given which assists with this activity and measures your progress. Take ten deep breaths every hour to prevent secretions in the lungs from collecting. If this happens, you may develop a chest infection (pneumonia). Avoid smoking after surgery, as this increases your risk of infection. Coughing is painful after abdominal surgery, use the pain medication.

**Diet**

During the first few days of recovery, you will not be able to eat until the bowel has begun to work again. You know the bowel has started to work again when you pass wind and/or have a bowel movement. You will then begin to take liquids by mouth and then solid food.

**Colostomy.**

The colostomy drains bowel waste from the bowel into the colostomy bag. Most colostomy waste is softer and more liquid than normally passed bowel waste. The thickness of the bowel waste depends on where the stoma is. You will be taught how to clean around the colostomy and change the colostomy bag. The colostomy bag sticks to the skin around the stoma with special glue, and can be thrown away when dirty. This bag does not show under clothing, and most people learn to take care of these bags themselves.

**Wound**

Your wound will usually have no visible stitches or staples and is usually covered with a dressing. In certain cases staples or stitches are used to close the incision and will need to be removed at a later date.

**Drains**

You may also have a small tube that drains into a bag from near your wound. This removes fluid from the surgical site and is usually removed within a few days after surgery at the bedside.
Pathology Report
The pathologist’s report will be available 5-7 days after the operation. Your doctor will have a full discussion of the findings in the report at your first postoperative visit and the report is available to you. Based on this, there is usually a discussion about prognosis and follow-up care. In addition, further treatment may be recommended. These include:

Surgery: in rare circumstance an additional operation is required.
Radiation (X-Ray) treatment: may be used as an adjunct to surgery either before or after the tumor is removed.
Chemotherapy (use of drugs to treat tumor) is usually used together with surgical removal.

Postoperative Instructions after Discharge

Diet
Eat a soft diet for first week. Try eating six (6) small frequent meals rather than 3 big meals. Excessive sweets tend to make the stools more liquid. Add one new food at a time in small mounts. Drink plenty of fluids.

Fibers
Avoid raw vegetables and raw fruits for 1-2 weeks. Gradually increase the fiber in your diet, as this will thicken the stool. Lessen the doses of Metamucil, Konsyl or Citrucel if abdominal cramps or bloating occur.

Activity
Avoid activity which causes pain. Walking and climbing stairs is OK. No lifting more than 10 lbs for the first 2 weeks then as directed by your physician.

Medications
Resume home except: Aspirin or NSAIDS (motrin, advil etc.) unless otherwise directed by the doctor.

Driving
No driving until seen in the office.

Wound problems
It is okay to shower and get the incision and staples wet. Some drainage from the incision is common; a light gauze pad over the incision can be helpful. If drainage is cloudy or associated with fever > 101 degrees and redness, call the office.

Medication reactions
Reactions to medicines can occur. The most common symptoms are nausea, vomiting, or itching related to taking the medication. If this occurs stop the medication and contact the office. *Note: All Narcotics cause constipation*

Urinary difficulties
Urinary tract infections occasionally occur following abdominal surgery. Pain during urination and blood in the urine may be symptoms of infection. Bring these symptoms to the doctor’s attention.

Bowel obstruction
Mild abdominal bloating and constipation commonly occur during the early postoperative period and are normal. If there are abdominal cramps, nausea, vomiting, or fever, call...
your physician for advice. If the symptoms are mild, you may restrict intake to liquids only and avoid solid food. If the symptoms are severe or if persist beyond 24 hrs, you must call your physician.

**Anal Irritation**
Irritation around anus from severe diarrhea occurs commonly as bowel function is erratic after surgery. Use Desitin ointment or other skin protective paste. Avoid vigorous wiping after a bowel movement. Instead use a shower nozzle attachment to clean the area. A warm tub bath or sitz bath is also helpful. Pat gently dry afterwards. Baby wipes can be used instead of toilet paper.

**Steroid withdrawal:**
If you had been on Prednisone for a long time previously for ulcerative colitis and have now stopped the medication, you are at risk for steroid withdrawal if the weaning is too quick, or if you are undergoing a stressful situation. The manifestations may be vague with feelings of being rundown, nausea or severe joint aches. If there is no improvement within 24 hours, call your physician.

**Infection**
If you experience fever, chills, severe lower abdominal pain difficulty in passing urine or drainage of pus from wound, call your physician.

**Postoperative Appointment**
Call the office on the day of your discharge to make follow up appointment in 1 to 2 weeks (or as directed at time of discharge). For your convenience, avoid calling Monday morning when phone lines are busiest.

**On-call physician**
For emergencies after hours, you may contact the on-call physician by dialing the office number anytime day or night 703-280-2841.
The following is a brief list of the most common issues:
• Large amounts of bloody leakage from the wound.
• Blood in the stool.
• Fever above 101 or chills
• Nausea and vomiting
• Pain that is not relieved by prescribed pain killers.
• Tender, swollen abdomen.
• Swelling, tenderness, redness at or around the incision.

My notes to talk to the doctor about

References for further study
Murray, John, J. (Ed), The Surgical Clinics of North America, W. B. Saunders Company, Philadelphia, Volume 73, Number 1, February 1993


