# Surgery and Post Surgery

Depending on the type and extent of your colon or rectal cancer, surgery may be an option to treat it. The following information covers different surgical procedures your health care team may discuss with you. It also includes tips on how to care for yourself after surgery.

***If the information included here differs from what your individual surgeon recommends, follow your surgeon's directions. If you have questions, we encourage you to ask your doctor or health care team regarding all your options.***

In certain instances, your doctor may recommend that you have neoadjuvant chemotherapy, radiation or both. Neoadjuvant therapy is given before surgery to shrink, weaken or destroy the cancer. The goal of neoadjuvant therapy, specifically for rectal cancer, is to preserve the sphincter (anal muscle).

Surgery for colon cancer removes the section of the colon that contains the tumor and surrounding tissue with its blood vessels and lymph nodes. If the surgical pathology report finds that cancer has spread outside the colon to the wall of the abdomen, or to the blood vessels or lymph system, further treatment may be required.

## Words to Know

**See the next section for more information about each of these words.**

**Colectomy:** Removes the cancerous part of the colon and nearby lymph nodes.

**Colostomy:** Colostomy refers to the creation of a stoma (artificial opening) creating a pathway for stool to exit the body that bypasses the rectum.

**Ileostomy:** An ostomy that is created high in the bowel in the small intestine (before the colon).

**Ostomy of the bowel:** A surgical procedure that diverts part of the colon to the abdominal wall through which waste material passes out of the body from the bowel.

**Reanastamosis:** Reconnection of the bowel.

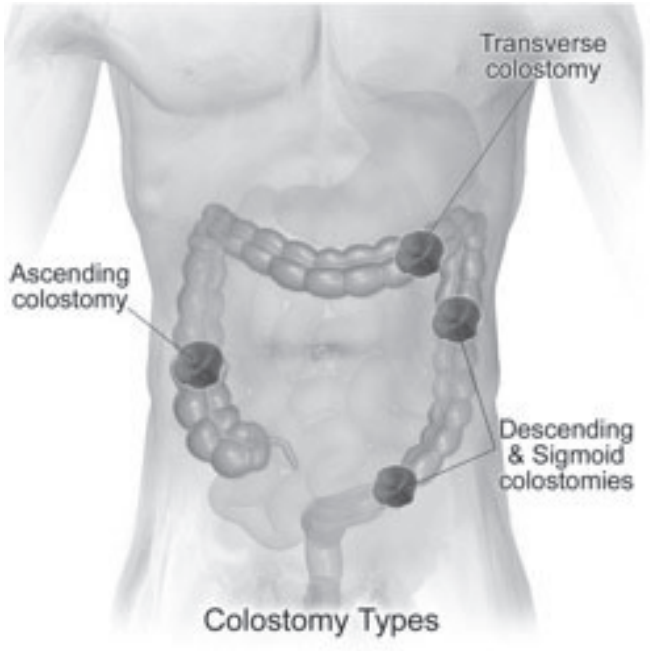
**Stoma:** The opening on the abdomen that allows bodily waste to come out when part of the intestines are removed or not able to work properly.

## Types of Surgery for Colon and Rectal Cancer

Surgery includes a colectomy (removal of all or part of the colon) with reanastamosis (reconnection of the bowel) or colectomy with the creation of an ostomy (an artificial opening), either temporary or permanent.

### Colectomy:

A colectomy removes the cancerous part of the colon and nearby lymph nodes. This surgery can be done through a large incision in your abdomen or with laparoscopic (minimally invasive) surgery. Laparoscopic surgery is done through small incisions that allow a scope to be inserted and tunneled into the abdomen allowing the surgeon to visualize the abdominal cavity without cutting through the abdominal muscles. During the surgery, your surgeon will examine the abdominal cavity. To do a thorough exam, pieces of your intestine will be mobilized (cut free) so the curves of the intestine and the underlying abdominal wall are visible. After the cancerous part of the colon is removed, or "resected", the surgeon will reconnect your digestive system so your body can get rid of waste by either rejoining the intestines or attaching your intestine to an opening on your abdomen (see next section).

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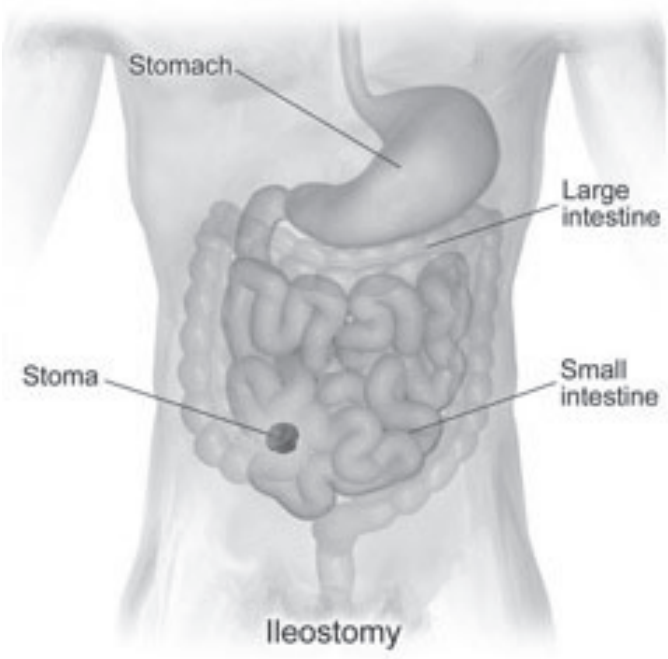
### Colostomy:

In some cases, your body may not be able to get rid of waste. In this case, a hole (stoma) is created in your abdomen. This procedure is called a colostomy. An ostomy pouch is placed over the stoma to collect waste. Seeing an ostomy therapy nurse prior to surgery is helpful to ensure the stoma is placed in the correct place on the abdominal wall. Ostomies can be temporary or permanent. When healing is complete (after a few months or years) a reverse colostomy surgery may be an option. This procedure is also called a "takedown", as in taking the healed colon down off the abdomen and connecting it to the remaining colon or rectum using sutures that will dissolve. Reversal surgeries require several weeks (6-8 at a minimum) of recovery. Learning to care for your own ostomy (whether temporary or permanent) without help is essential for your wellbeing after colostomy surgery. People with ostomies can live active lives. Look for solutions that support you in your favorite activities. Waterproof pouch systems exist to allow you to swim and participate in water sports.

### Ileostomy:

An ostomy that is created high in the small intestine, before the colon, is called an ileostomy. It will have more output than a colostomy because it bypasses the colon and one function of our colon is reabsorption of water. Therefore, people with ileostomies are at a higher risk of dehydration and are often readmitted to the hospital because they are in need of fluids. Keep a log of how much fluid you are drinking and how much is coming out of your ileostomy. Be proactive about communicating to your health care team as you may be able to avoid hospitalization by getting IV fluids in your doctor's office or avoid needing IV fluids altogether.

People with ostomies can live active lives. Look for solutions that support you in your favorite activities. For help, visit ***ostomy.org***.

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## Tips for taking care of yourself with an ostomy:

Be patient. It takes time to get used to caring for your ostomy and to find the pouch system that works best for you.

- If possible, practice beforehand! Many surgeons have ostomy models in the office for you to look at and practice with prior to surgery.
- Before your surgery, ask if your doctor can show you examples of the supplies you will need to care for your ostomy.
- After surgery, nurses and ostomy specialists can demonstrate how you can care for your ostomy independently.
- Watch carefully when the nurses care for your ostomy for the first time. Ask for a mirror to visualize if you are not able to see all of the care. Have your spouse or caregiver watch as well.

### Things you will need to learn:

- How to empty and replace the pouch.
- How to care for and clean the skin around your stoma.
- Supplies to use when skin is irritated or needs extra care, such as skin protectant.
- How to manage your diet and activities.
- How to tell when you are getting dehydrated. A headache is often times the first sign of dehydration.
- Many times after surgery, multiple bowel movements are common. Recognizing how many is too many is important as it may indicate infection or surgical complication (see the stoplight tool in this binder).

- Once you have seen the care being done, do the care next time and allow the nurse to "coach you". Doing it yourself will give you practice and help build your confidence when you go home.
- Ostomy specialists and case managers in the hospital will help you arrange for home care that can help support you as you learn to care for the ostomy. Your home care agency will deliver ostomy supplies to your home. ***Make sure you have the contact information for your home care company and reach out to them once you are discharged from hospital.***
- Ask your nurse or ostomy specialist to provide a few extra supplies to get you through until supplies are delivered to your home.
- Have a supply of gloves, towels and wipes available when you are changing your ostomy bag and when you are away from your home.
- Ask about alternative pouching systems if yours is uncomfortable.
- Be patient. It takes time to get used to caring for your ostomy and to find the pouch system that works best for you.
- Contact a local ostomy organization for support through the United Ostomy Association of America (*ostomy.org*).

Attend an ostomy support group if this is offered by your hospital or health care system. Support groups are also offered online at ***inspire.com/groups/ostomy.***

## Tips for taking care of yourself with an ileostomy:

- Review the signs and symptoms of dehydration with your health care team. These can include:
  - Headache and irritability.
  - Dark urine or no urine in cases of extreme dehydration.
  - Tenting of your skin. Lightly pinch the back of your hand. If you are properly hydrated the skin will spring back rather than staying gathered.
  - Use a scale at home to monitor for sudden weight loss. A loss of more than 2 pounds in a few days is concerning for dehydration.

- Drink enough fluids to replace your output from your ileostomy. Measure and keep a log of what you are taking in and what is coming out. Keep a log on your smartphone or keep a notebook in the bathroom for this purpose. You may see nurses in the hospital measure with a graduated container and you will need to do this for a while until you are able to estimate.
- When you call or visit your doctor for follow up, tell them how much your ileostomy puts out, how many times a day you empty it and how full it was each time when you did so. Use a measuring container provided or recommended by your team.
- Tell your doctor if your output is interrupting your sleep and not allowing you to get good rest.

## Surgery for Rectal Cancer

For rectal cancer, or cancer that is 5 cm or less from the anus, you may be treated with radiation and chemotherapy before surgery. Neoadjuvant chemotherapy and radiation are used to shrink the tumor prior to surgery. The goal is to avoid loss of the anal sphincter (muscle) and the need for an ostomy. An endorectal ultrasound (EUS) or pelvic magnetic resonance imaging (MRI) is required to fully evaluate the layers of the rectal wall and see the depth of the cancer's invasion. The type of surgery done for rectal cancer depends on how deep the cancer has invaded into the muscle of the anus and the appearance of the cancer.

*An example of a magnetic resonance imaging (MRI), which some patients may receive before surgery.*

*There are two surgeries done for rectal cancer: Low Anterior Resection (LAR) and Abdominoperineal Resection (APR).*

**Lower Anterior Resection (LAR)** involves removing the descending colon, sigmoid and upper rectum. Next, the colon is attached to the remaining part of the rectum so that after the surgery your stool can exit through the anus like it did before surgery.

**Abdominoperineal resection (APR)** is used for large tumors that have invaded into the muscle as well as for tumors that are close to the anus and those where there are lymph nodes affected by cancer. An incision is made in the abdomen. A second incision is made in the perineal area between the legs to remove the anus and the muscle tissues surrounding it. After an APR you need a permanent colostomy because there is no muscle or supporting structure to attach to the bowel.

## How to Prepare For Surgery

- Stop smoking. Talk to your doctor if you need help quitting. Those that get help are more likely to remain tobacco free after surgery. You will heal better and decrease your chances of the cancer coming back if you stop smoking.
- Pick up any pre-surgery medications or prescriptions you need. Follow your doctor's instructions exactly with regard to bowel prep and diet prior to surgery.
- While recovering from colon or rectal surgery you will be instructed not to lift, push or pull objects more than 15-20 pounds for approximately 4-6 weeks. Make arrangements for the care of your children, other family members or animals you may care for. You will need to focus on your own recovery for a time in order to prevent complications.
- Try to straighten and clean your home prior to surgery. You will want to remove tripping hazards and make things easy to reach.
- Consider preparing some food ahead and freezing portions so you will not have to cook. Alternatively, ask for help with meal preparation. See the resource section for a list of companies that can help organize meal delivery. These websites also have some good recipe ideas for comfort foods. Set up your site and email your friends and family before you start your treatment so they can help. Your diet after colectomy surgery may have to be adjusted until you heal (*see* Nutrition section).
- Consider getting a hand-held shower and a bar and/or a shower chair to make it easier to care for yourself after surgery. If you have an ostomy, empty the bag before you get in the shower. You may need to change your pouch system after the shower.
- Do not drive while you are on narcotic pain medications. This is another chance for you to ask for help from other people.
- Consider the clothes you will be wearing home from the hospital. Usually elastic waist loose fitting, non-binding waistbands are best.
- Remove jewelry, especially rings, the day before surgery.
- People usually stay 3-5 days in the hospital following colon surgery. Gather the items you will need to bring for your surgery stay. Pack lightly, as there are usually only a few items you need.
- Bring your photo ID and your insurance card and leave your valuables at home.
- Pack your toothbrush, toothpaste or items needed to care for your dentures. Most people like to bring their own brush or comb. If you wear glasses, pack your glasses case.
- Bring two packs of your favorite gum (unless you have dentures). This will be for the evening after your surgery to help your bowels start again.

## Tips for managing symptoms after bowel surgery:

All bowel surgeries have the risk of causing a temporary paralysis of the bowel called an ileus. This is where the intestine is no longer moving as it should. Inflammation or swelling is the first step in the healing process. An ileus is only a problem if it does not resolve and the bowel does not drain.

Normally inflamed bowels starts to function in just a few days. An ileus can be accompanied by painful cramping and bloating. Move through the pain. The single best thing to do to prevent this complication is to move early and often. Get up and move!

Ask for help in getting up and learn how to roll to your side and use your arm muscles to help you push up out of bed. Use an upright walker to help support your weight if needed. Hospital physical therapists can be very helpful in coaching you on how to get up after abdominal surgery and teaching you to protect your injured belly muscles while they heal. Some people find it helpful to hug a pillow against the abdomen for support and comfort when rolling and rising. Gather several extra pillows by your bed at home to help support you when you go home.

The single best thing to do to prevent this complication is to move early and often. ***Get up and move!***

### Managing Your Pain

You will likely need narcotics immediately after and for the first couple of days after surgery. You will also be given anti-inflammatory medication or IV Tylenol to help manage the pain and decrease the risk of ileus. You may not be able to completely eliminate pain and there will be some normal discomfort while healing.

An ileus that does not resolve can prolong your stay in hospital. Many people only need to use opioids or narcotics for a couple of days. Consider using pain medications like Tylenol without the narcotics. As soon as you are able to, take your pain medicine by mouth rather than IV.

It is very important that your pain is under control. Your health care team will help you do this before you leave the hospital.

Once you go home from hospital, take frequent walks during the day. During the day, try not to be at rest for more than 45 minutes at a time.

### Side Effects

The most common side effects from surgery for the colon or rectum are nausea, constipation and diarrhea, but there are also others. Be sure to let your medical team know about what you are experiencing.

## Your Pathology Report

Your pathology report (results of your surgery) can take up to 7–14 days.

The amount of tissue that is removed and additional specialized testing accounts for this length of time. All of our colon and rectal surgeons prefer to have the pathologists skilled in examining GI cancers look at the tissue and document their finding in full before they discuss them openly with you and your doctor. In some cases, they have to send tissues out to specialized labs. Doctors do not give preliminary results.

Expect your surgeon to share the findings at your first post-operative office visit.