Colorectal Cancer: Surgery

It can be overwhelming to hear you have colorectal cancer. As you learn more, you might wonder how it will be treated. One treatment option is surgery. The type of surgery you have will depend on the type of cancer, where it is, and how much it has spread. Other factors, such as your preferences and overall health, will also play a role.

When do you need colorectal surgery?

Sometimes, your healthcare provider may find colorectal polyps or early-stage colorectal cancer during a colonoscopy. When that happens, they might be able to remove the polyps or cancer by passing small tools through the tube used to do the colonoscopy. That means no cut (incision) is needed.

But that might not always be the case. You might need surgery when:

- **You've had a colonoscopy, but your provider could not remove the whole polyp.** You'll need surgery to take out the rest of the polyp. This is done because the remaining polyp might contain cancer cells that could spread over time. The only way to know if a polyp has cancer is to check it under a microscope in a lab.
- **You've had a polyp fully or partly removed, and it has invasive cancer cells in it.** The removed polyp tissue is checked for cancer by looking at it under a microscope. If cancer is found and the polyp was not fully removed, you'll need surgery to make sure all the cancer is removed. You'll also need surgery if cancer is touching the edge of the area where the polyp was removed.
- **You have stage I, II, or III colorectal cancer.** These stages mean that the cancer hasn't spread to other parts of the body, so all of the cancer might be able to be removed with surgery. After your surgery, you may also need other treatments, such as radiation or chemotherapy (chemo).
- **You have stage IV (advanced) colorectal cancer that has spread only to parts of the liver or lungs that can be removed with surgery.** Your surgeon will remove the cancerous parts of those organs. You may need additional treatments, such as radiation or chem, before or after surgery.
- **You have advanced cancer that threatens to block (obstruct) the colon or cause other major problems.** Sometimes surgery is used to treat problems linked to the cancer and to ease symptoms. But it won't cure the cancer. One example is when a tumor blocks the colon. To treat this, the surgeon may create a colostomy. This connects the part of your colon before the blockage to a small opening (stoma) made on the skin of your belly (abdomen). This allows waste to leave your body. This procedure can be done if someone isn't healthy enough for more extensive surgery.

What are the types of colorectal surgery?

There are several surgeries that can treat colorectal cancer. The 3 most common are:

- **Polypectomy.** This surgery removes a polyp. It's often done during a colonoscopy. No incision is made in the skin.
- **Local excision.** This removes the cancer and a small edge of the normal tissue around it. If the tumor isn't very deep, this can be done during a colonoscopy. It might also be done during a separate surgery.
- **Surgical resection of the tumor.** Keep reading for more information about this surgery below.

What is resection surgery?

During resection surgery, part of your colon or rectum is removed. So are the nearby lymph nodes. The surgery is most often done by making 1 or many incisions (laparoscopic approach) in your belly.

The surgery differs depending on if the cancer is in your colon or rectum.

For colon cancer

If you have colon cancer, the resection surgery is called a partial colectomy or hemicolectomy. In this surgery, the surgeon takes out the cancerous part of your colon. They also take a small amount of the healthy colon tissue on either side. They may also remove nearby lymph nodes to check for cancer.

There are 2 ways to do this surgery:

- **Open colectomy.** This is done through 1 long incision in the belly.
- **Laparoscopic-assisted colectomy.** This is done by using long, thin surgical tools passed through many small cuts in the belly.

Colectomy is often done with anastomosis. This means the ends of the colon are sewn or stapled back together. A short-term colostomy may be needed. This will divert stool out of the body through a new opening (stoma). This is used until the reattached part of the colon heals. After the colon has healed, the colostomy stoma is usually reversed. This means that the ends of the colon are reattached in another surgery.

For rectal cancer

If you have rectal cancer, there are several different possible surgeries. Your healthcare team will talk with you about the best type of surgery for you. It will depend on the stage of the cancer and where it is in your rectum.

The most common options for surgery are:

- **Transanal excision (TAE) and transanal endoscopic microsurgery (TEM).** These surgeries are local excisions used to treat some early-stage cancers. No cutting into the belly is needed. Instead, the surgery is done with tools passed into the anus. The anal sphincter is not removed. So you continue to have normal bowel function. Lymph nodes are not removed during this type of surgery. Transanal excision removes tumors toward the bottom of the rectum near the anus. TEM removes tumors in the middle or upper rectum. It requires surgeon training and experience with special equipment.
- **Lower anterior resection.** This surgery is done through an incision in the belly to reach and remove the part of your rectum in the mid to upper rectum that has cancer. Part or all of the sigmoid colon is also removed. The colon is connected to the remaining rectum when possible.
- **Proctectomy with colo-anal anastomosis.** This removes your whole rectum. Afterwards, your colon is joined to the anus.
- **Abdominoperineal resection (APR).** This is used for tumors in the lower rectum. It removes your rectum, anus, and other tissues around it, including possibly the sphincter muscle. You'll need a lifelong (permanent) colostomy.
- **Pelvic exenteration.** This major surgery removes your rectum. It also removes nearby organs if the cancer has spread there. These include the bladder, the prostate in men, or the uterus in women. You'll need a permanent colostomy.

What are the possible risks and side effects?

There are possible risks and side effects with any surgery. Your healthcare team will go over what to expect.

Keep track of your side effects. Discuss them with your healthcare team. Keep a journal noting your symptoms, when you have them, and how long they last. Your team will be able to help you manage them as you heal. Ask what concerns to report right away. Find out what number to call and if there is a different number to call after office hours, on holidays, and on weekends.

General surgery risks:

- Reactions to anesthesia

- Excess bleeding
- Blood clots in the legs or lungs
- Damage to nearby organs

Colorectal surgery risks:

- **Infection risk.** This is higher due to the bacteria in your colon. Pre-surgery treatments can help reduce this risk. Infection can happen at either the incision site on the skin or inside the belly. Your healthcare team can treat some skin infections by draining them and by using clean dressings. If an infection occurs inside your belly, you may need additional surgery. Your team may also prescribe antibiotics.
- **An anastomotic leak.** This is when your intestine leaks into your belly. This happens in a small number of people who have had a colorectal resection. It occurs at the connection that rejoins the 2 ends of the colon, or the ends of the colon and rectum, after removal. For small leaks, your healthcare team will keep watch. You may have to be careful about your diet. But a small leak may heal itself over time. However, large leaks can be life-threatening. You may need surgery to correct the problem.
- **Bowel blockage**. This happens when scar tissue (adhesion) develops in your colon while it heals. This can cause symptoms such as pain, bloating, nausea, and vomiting. You may need surgery to treat the problem.
- **Ureteral injury.** This can occur during rectal surgery. Ureters are the tubes that carry urine from your kidneys to your bladder. If your surgeon notices the damage during the surgery, it can be fixed right away. Sometimes they don't notice the damage right away. That can cause long-term problems.
- **Erectile dysfunction.** This can occur in some men because the rectum is close to the prostate. The prostate is surrounded by the nerves involved in sexual function. If these nerves are damaged, it can cause problems getting or keeping an erection.
- **You may need a colostomy or ileostomy.** In these procedures, a piece of the colon (or the ileum, part of the small intestine) above the tumor is linked to a small hole (stoma) made in the belly so waste can leave the body. The surgeon does this when they can't reconnect the ends of the intestines after removing the tumor. A small bag is placed over the stoma to collect waste. Ostomies (colostomy or ileostomy) can be short-term or permanent. If your ostomy is short-term, the surgeon will reconnect the ends of the intestines later.

How do you get ready for surgery?

To prepare for your surgery, you'll have some extra meetings with your healthcare team.

Your surgeon will talk with you about the procedure. They'll provide all the details for your surgery, and you'll sign a consent form. By signing this, you give the surgeon permission to do the surgery. Be sure to ask any questions before you sign the consent.

You'll also talk with an anesthesiologist. The anesthesiologist gives you general anesthesia. This is the medicine that lets you to comfortably sleep during surgery. They'll also closely watch your vital signs during surgery to keep you safe. These include your heart rate, blood pressure, and oxygen levels. During your meeting, you'll talk about your health history, allergies, any past problems with anesthesia, and your current medicines.

A few days before your surgery, you may have to:

- **Clean out your colon with laxatives and enemas.** Your healthcare provider will tell you when and how to use these.
- **Follow a special diet before surgery.** Your healthcare team will give you detailed instructions to follow.

What should you expect during surgery?

On the day of your surgery, you will be in an operating room with your healthcare team. This includes the anesthesiologist, surgeon, and nurses.

A typical surgery includes the following:

- You'll be moved onto the operating table.
- Special compression stockings will be placed on your legs. These help to prevent blood clots.
- To keep track of your heart rate, your team will put ECG (electrocardiogram) electrodes on your chest. They will put a blood pressure cuff on your arm and an oxygen monitor on your finger.
- The anesthesiologist will give you anesthesia through an IV (intravenous) line into your arm or hand.
- Once you're asleep, the surgeon will do the surgery.
- The team will put a urinary catheter into your bladder during surgery. It may stay in for a few days after surgery.

What happens post-surgery?

After your surgery, you'll likely feel very tired. Fortunately, you'll be able to stay in the hospital for a while to recover. Your healthcare team will give you more details, but here are some general things to expect after surgery.

In the hospital

You'll be taken to the post anesthesia care unit (PACU) after surgery as you wake up from the anesthesia. Your healthcare team will watch you closely. They'll give you medicine to treat any pain you have. When you are awake and stable, you are taken to your hospital room.

At home

Your healthcare team will give you specific instructions on how to resume your normal activities. In general here is what you can expect:

- You can resume some exercise. But don't lift heavy things for a few weeks.
- You might not be able to drive for a while. Discuss this with your healthcare team.
- You will care for your incision as instructed by your healthcare team. Don't take baths or go swimming. Avoiding these activities will reduce your risk of infection.
- If you have an ostomy, you'll have to take care of your stoma and manage the stool collected in the attached bag. Your team will teach you how to do this before you go home and how to obtain supplies.
- You may have a 5-inch to 7-inch scar on your belly if you had open surgery. This will likely heal into a thin scar.

Depending on the stage of your cancer, you may need either chemo or radiation. Treatment given after surgery is called adjuvant therapy. This is done to reduce the chance that any remaining cancer cells will spread. Your team will discuss these options with you before surgery.

Eating after surgery

You'll have some food restrictions after the surgery. Your healthcare team will give you detailed instructions. You may also talk with a nutritionist or dietitian to help you plan your meals.

Typically, you'll be advised to:

- **Follow a special diet right after the surgery.** You may get your nutrients through an IV line. You may have to be on a clear liquid diet until your bowels are moving again. You then may be able to add some soft foods and, later, normal foods.

- **Follow a low-fiber diet to rest your bowels if advised by your provider.** It can take a few months for your colon to heal. This will remove pressure on it.

Bowel movements after surgery

Your bowel movements will take some time to return to normal. For some it can take as long as 2 years to fully adjust.

After colorectal surgery, you may notice these changes:

- **You may have more bowel movements than before.** Some people have seven or eight a day in the first months post-surgery. Although you'll have multiple bowel movements per day for a while, they will go down in number.

- **Your bowel movements may also be more urgent.** You may find yourself rushing to the bathroom to prevent leaking more often.

- **If you had rectal cancer, you may have had a colonic J-pouch created during surgery.** This special pouch holds stool like your rectum did before surgery. The surgeon creates it by looping the colon back on itself and stapling it together (making a J-shaped pouch). Collecting the stool until you can get to a bathroom helps you get back to a stable bowel pattern more quickly. You may return to a more normal pattern in a few months.

- **Some surgeries require the surgeon to create an ostomy in your belly.** This ostomy can be short-term or permanent and helps waste leave your body. While it can seem overwhelming, you will have help. A specially trained therapist can help you adjust and learn how to care for the ostomy.