# Colorectal Cancer

## Your Care and Recovery

MOUNT CARMEL

It is normal to feel overwhelmed by a cancer diagnosis. Mount Carmel's team of expert healthcare professionals are here to support you during this difficult time.

You and your doctor have determined that surgery is the next step in your treatment. This book has been provided to help you understand the different aspects of your care and the resources that are available to help you through your diagnosis, treatment, and recovery.

Keep these suggestions in mind:

- Don't be afraid to ask questions. Keep a written list of your questions to take with you to your doctor's appointments.
- To make an informed choice, ask about your treatment options, including the pros and cons of each and potential side effects.
- Bring someone with you to your appointments to help you listen, ask questions, and take notes. It is hard to absorb everything by yourself.
- Keep a log of your healthcare journey as you go along.
- Express your feelings — talk with friends and family members and ask for help.

***For your continued health education, this booklet and others are available on mountcarmelhealth.com.***

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# Diagnosis

## Building and Working with Your Healthcare Team

To feel comfortable with the treatment decisions you make and the treatments you get, you need a healthcare team you can trust.

A dedicated team of healthcare providers will help you during your hospitalization and recovery. This may include a hospitalist, primary care doctors, gastroenterologists, general or colorectal surgeons, pharmacists, nurses, dietitians, health educators, case managers, and discharge planners.

When a diagnosis of cancer is made, your healthcare team will include new members. This might include a medical oncologist, oncology nurse, ostomy or enterostomal nurse, radiation oncologist, radiation therapist, and oncology nurse navigator.

You are an important member of this team. Taking an active role in your care is very important for your recovery.

## Cancer Patient Navigator Program

Our patient navigators are oncology-certified nurses who can provide information and resources. Their assistance is a free service that can not only help answer your questions, but also be a familiar and informed advocate. They're your personal resource for cancer care at Mount Carmel.

Specifically, your oncology nurse navigator can:

- Help you better understand the care system
- Offer education about your cancer diagnosis
- Provide emotional support
- Connect you to resources to assess your eligibility for assistance with costs, transportation and other needs
- Provide referrals to resources to assist in coping with side effects of treatment
- Coordinate meetings with members of your healthcare team

Your navigator is a caring, knowledgeable professional that you can contact throughout the treatment process.

## What Is Cancer?

Colorectal cancer is cancer that occurs in the colon or rectum. Cancer begins in cells, the building blocks that make up tissues. Tissues make up organs of the body. Normally, cells grow and divide to form new cells as the body needs them. When cells grow old, they die and new cells take their place. Sometimes, this process goes wrong. New cells form when the body does not need them and old cells don't die when they should. These extra cells can form a mass of tissue called a growth or tumor.

Tumors can be benign or malignant:

- Benign tumors are not cancer. Most can be removed and usually don't grow back.
- Malignant tumors are cancer. Malignant tumors can be removed, but sometimes they grow back.

As a cancerous tumor grows, it may involve more of the colon or rectum. Cancer cells can break away from a malignant tumor and spread to other parts of the body. Cancer cells spread by entering the bloodstream or the lymphatic system. The cancer cells form new tumors that damage other organs. The spread of cancer is called metastasis. The earlier a cancerous tumor is removed, the better the chance of preventing its spread.

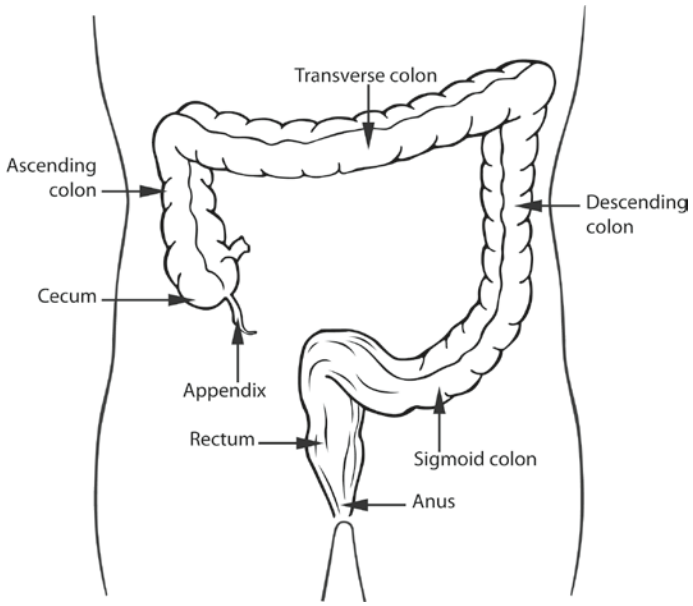
# The Colon

The colon and rectum make up the large intestine, which are parts of the digestive system. Food digestion begins in the mouth and ends in the anus. The colon's main job is to absorb water and minerals from the stool and store solid waste material, which is the last stage of digestion.

The colon is a long, muscular tube that connects to the small intestine and joins the rectum, which is the last part of the digestive system. The colon is made up of different sections, including the:

- Ascending colon
- Transverse colon
- Descending colon
- Sigmoid colon

A surgeon can usually remove any area of the colon and then connect the ends back together.



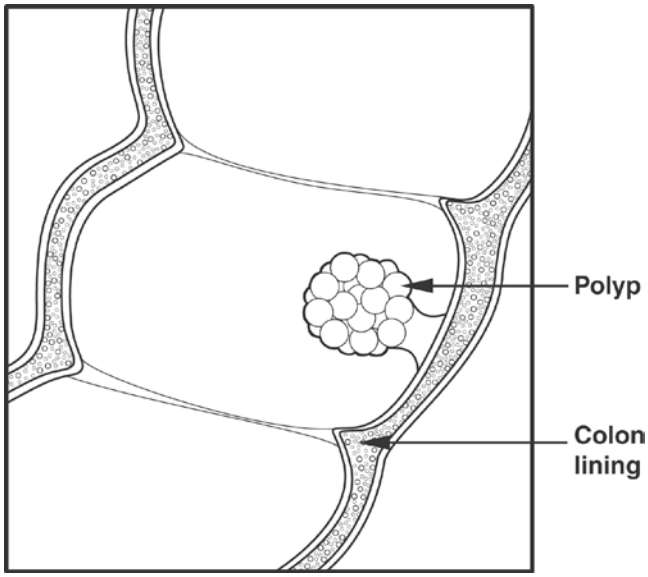

# When the Lining of the Colon Changes

Changes in the cells that line the colon or rectum can lead to growths called polyps. Over a period of years, polyps can turn cancerous. Before a cancer occurs, precancerous changes can be detected and treated.

## Polyps

Polyps are fleshy clumps of tissue that form on the lining of the colon or rectum. Some grow flat against the wall; others grow a stalk. Polyps may cause no symptoms or may cause rectal bleeding, blood in the stool, a change in bowel function, or rarely, abdominal pain.

Almost all colorectal cancers start when polyp cells begin growing abnormally. Small polyps are usually benign (not cancerous). However, over time, cells in a polyp can change and become cancerous. Because polyps can change into cancers, the American Cancer Society recommends that people age 50 and older have a colonoscopy every ten years or as directed by their doctor.



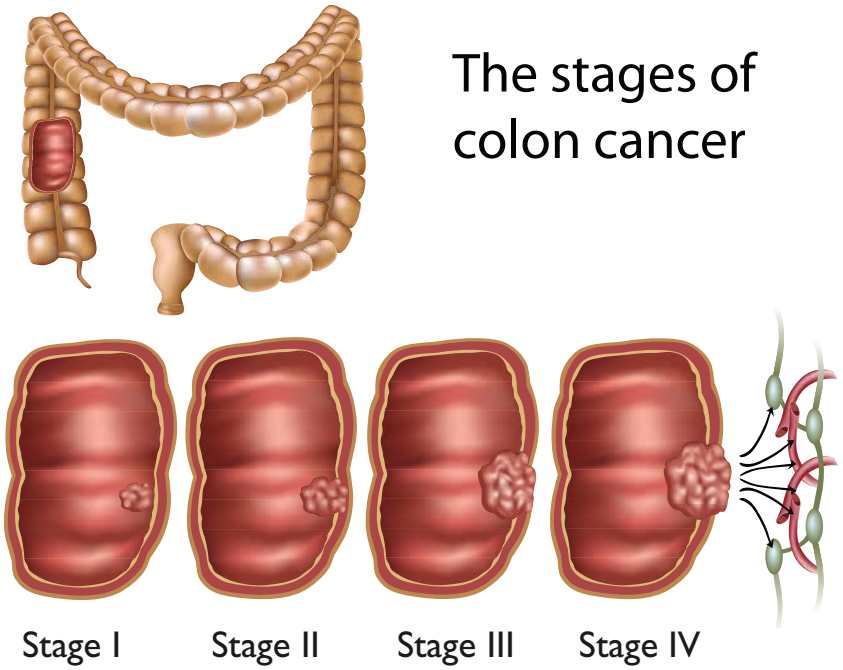
# Staging Colorectal Cancer

If a tumor is found to be cancer, your doctor needs to know the extent (stage) of the disease to make the best treatment plan. The stage is based on three pieces of information:

- Has the tumor grown into the wall of the colon or rectum?
- Has the cancer spread to nearby lymph nodes?
- Has the cancer spread to other parts of the body?

Colorectal cancer has four stages, based on the location of the tumor.

| | |
|---|---|
| **STAGE 0:** | The cancer is found only in the innermost lining of the colon or rectum. Carcinoma in situ is another name for Stage 0 colorectal cancer. |
| **STAGE I:** | The tumor has grown into the inner wall of the colon or rectum. |
| **STAGE II:** | The tumor extends more deeply into or through the wall of the colon or rectum. It may have invaded nearby tissue, but does not extend to the lymph nodes. |
| **STAGE III:** | The cancer has spread to nearby lymph nodes, but not to other parts of the body. |
| **STAGE IV:** | The cancer has spread to other parts of the body, such as the liver or lungs. |



# Treatment

When learning about your disease and treatment choices, it may be hard to remember what was discussed during your appointments. It is helpful to make a list of questions before your appointment. Have a family member or friend come with you to take notes, participate in the discussion, or just lend support.

## Treatment Methods

Treatment for colorectal cancer may involve surgery, chemotherapy, biological therapy, or radiation therapy. Some people have a combination of treatments. The choice of treatment depends mainly on where the tumor is in the colon or rectum and the stage of the disease. Colon cancer is treated differently from rectal cancer.

## Treatment for Colon Cancer

Most patients with colon cancer are treated with surgery. Some people have both surgery and chemotherapy. Patients with advanced disease may get systemic treatment alone (chemotherapy, biologic therapy, immunotherapy, and/or a targeted therapy).

A colostomy is seldom needed for people with colon cancer. Although radiation therapy is rarely used to treat colon cancer, it is used to relieve pain and other symptoms.

## Colon Cancer Surgery

Surgery is usually the first treatment for colon cancer. A colectomy is a surgery that removes all or part of your colon, also called your large intestine. The cancerous part of the colon and surrounding tissues are removed. The goal of surgery is to remove as much cancer from the body as possible. There are two different types of surgery for colon cancer:

### Open Laparotomy with Partial Bowel Resection

The surgeon makes a longer incision in your abdomen to access the colon and removes the section of the colon that contains the cancer along with surrounding tissue and lymph nodes, and sews or staples the cut ends together.

### Laparoscopic-Assisted Colectomy

Using a tiny video camera and special surgical tools, the surgeon performs surgery through several small incisions in your abdomen. Although this laparoscopic surgery avoids a larger incision and typically results in less pain and a shorter recovery time, this method takes longer than an open laparotomy. Not everyone is a candidate for this method.

During colon resection surgery, the surgeon removes the affected part of the colon or rectum. Some normal tissue and nearby lymph nodes are removed. The surgeon will also examine the other organs in the abdomen. In most cases, the healthy sections of the colon are then reconnected, which is called anastomosis. Stool will leave your body as before.

It may be necessary for the surgeon to attach the colon to an opening in the skin on the abdomen. This allows waste to leave your body through this opening. This is called an ostomy.

### Ostomy

An ostomy is a surgically created opening that allows stool or urine to leave the body. Ostomies are named for the location of the opening:  a colostomy is an opening into the colon; and ileostomy is an opening in the small bowel.

An ostomy may be needed if the surgeon has to bypass a large part of your colon or remove the muscle at the opening of the rectum.

Your surgeon often knows whether or not you will need an ostomy before the surgery starts, and he or she will discuss this with you in detail.

A stoma is the portion of the intestine that is visible to the outside. A new path for stool and other waste is made by creating a stoma and connecting the end of your colon or small intestine to the opening. An ostomy pouch that fastens to your skin over the stoma is used to collect waste.

Some ostomies are reversible after the surgery heals, and some will be permanent. An enterostomal therapist (ostomy nurse) will teach you about your ostomy and provide support during your hospital stay.

Before surgery, you will meet with an enterostomal therapist (ostomy nurse). The nurse will teach you about caring for an ostomy and provide support during your hospital stay.

For more information on ostomies, see page 26.

# Treatment for Rectal Cancer

Surgery is the most common treatment for all stages of rectal cancer. Some patients receive a combination of surgery, radiation therapy, and chemotherapy. Patients with advanced disease may get biological therapy. A temporary or permanent colostomy may be required for some patients.

Radiation therapy may be used before and after surgery. Some people have radiation therapy before surgery to shrink the tumor, and some have it after surgery to kill cancer cells that may remain in the area. People also may have radiation therapy to relieve pain and other problems caused by the cancer.

Your doctor can describe your treatment choices and the expected results. You and your doctor can work together to set a treatment plan that meets your needs.

## Rectal Cancer Surgery

Surgical options for rectal cancer depend on the location of the tumor in the rectum, its size, and whether or not lymph nodes are involved. The goals of surgery are to remove as much of the cancer from the body as possible and to preserve the anal sphincter (the muscle that controls bowel movements) and good bowel function whenever possible.

Surgery for small rectal tumors is called local excision. If the cancer is small and has not grown beyond the inner layers of the rectum where it started, it may be removed through the anus. This is called transanal excision.

Surgery for larger tumors is more involved. Some of the procedures used include:

### Lower Anterior Resection (LAR)

This is used to remove the tumor and lymph nodes when the cancer is located high in the rectum, above the anus. The cut ends of the rectum are sewed or stapled together. Stool (solid waste) can then pass normally through the anus, so a colostomy is not needed. Sometimes the surgeon will create a temporary ostomy so the rectum can heal.

### Total Mesorectal Excision (TME)

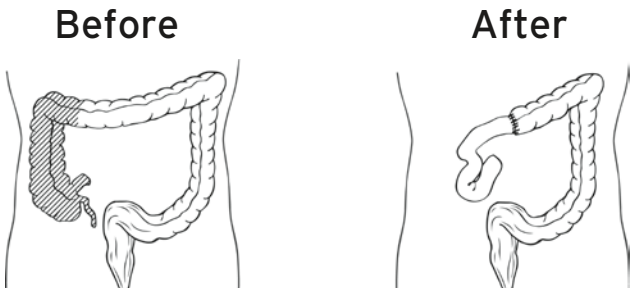
This is a specialized technique that removes the rectum as well as the fat, blood vessels, and lymph nodes around it in one careful piece. Studies have shown that TME is good for lowering the risk of cancer coming back in the same place.

### Sphincter-Sparing Surgery

Special techniques are done to help remove even low rectal tumors without injuring or removing the anal sphincter. This means you are less likely to need a permanent colostomy. Chemotherapy and radiation before surgery may further reduce the need to remove the anal sphincter.

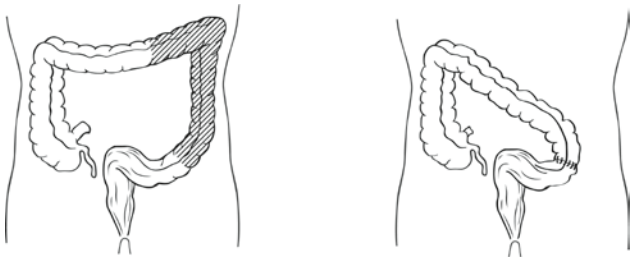
## Colorectal Resection

The growth and part of the colon or rectum surrounding the tumor are removed (resected) during surgery. How much of the colon or rectum is removed depends on the nature of the disease. When certain conditions are present, it may be necessary for the surgeon to remove a larger segment than anticipated. In most cases, the surgery can be done in 1 to 3 hours and patients are usually in the hospital 3 to 5 days. The most common types of colorectal resection are listed below.




☐ **Right Hemicolectomy**

Part or all of the ascending colon and the cecum are removed. The colon is reconnected to the small intestine.



☐ **Left Hemicolectomy**

Part or all of the descending colon is removed. The transverse colon is then reconnected to the rectum.

| | Before | After |
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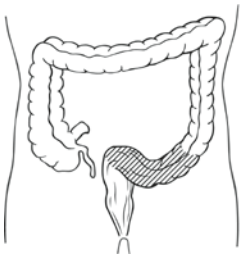
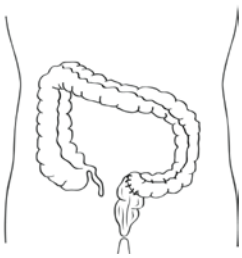
☐ **Sigmoid Colectomy**

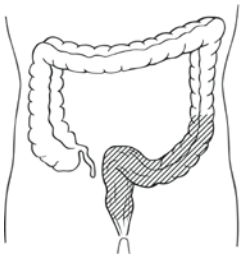
Part or all of the sigmoid colon is removed. The descending colon is reconnected to the rectum.

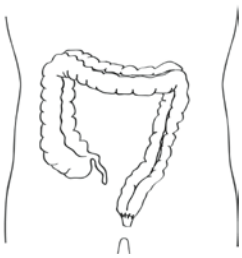




☐ **Low Anterior Resection**

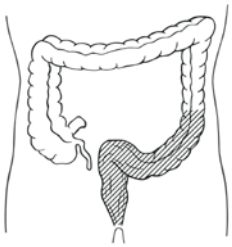
The sigmoid colon and a portion of the rectum are removed. The descending colon is reconnected to the remaining rectum.

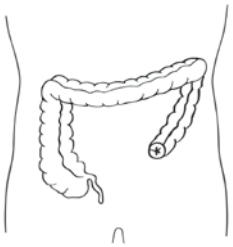




☐ **Abdominal Perineal Resection**

Part or all of the sigmoid colon and the entire rectum and anus are removed. A colostomy is then performed.





# Preparing for Your Surgery

## Surgical Consent

It is important for you to know the risks and benefits of surgery. Your surgeon will discuss these with you before surgery. You will be asked to sign a surgical consent form authorizing the surgeon to perform the surgery. Before signing the consent form, make sure to ask any questions you may have so that you understand your surgery and its risks and benefits. It is important that you fully understand the information and are an active partner in your care.

The risks and complications of surgery may include but are not limited to:

- Side effects from the anesthesia
- Infection
- Leaking or separation where the colon is reconnected
- Bleeding, with a possible need for a transfusion
- Damage to nearby organs
- Blood clots in the legs or lungs

## Anesthesia

General anesthesia is medicine that puts patients in a sleep-like state so they do not feel pain or remember the surgery. An anesthesiologist is a doctor specially trained to give anesthesia and monitor you during the procedure. During the surgery, your heart rate, blood pressure, breathing and other vital signs will be carefully monitored by your anesthesiologist. Your anesthesiologist will meet with you before surgery to talk with you about the kind of anesthesia you will have, review your medical history, and answer your questions.

## Before Your Surgery

### Pre-Admission Testing

Your doctor will give you specific instructions to prepare you for surgery. Your surgeon's office will let you know what pre-admission testing is required. Pre-admission testing typically includes lab work, X-rays, or other testing. It is important for you to get this done promptly to give your surgeon time to review the results before your surgery. Tests cannot be used if they are completed more than 30 days prior to surgery and would need to be redone.

### Medications

Your pre-admission testing appointment is the time to discuss the medications you are taking for your medical conditions (for example: diabetes, high blood pressure, acid reflux, chronic pain, asthma or other breathing problems). Bring a list of all of your medications, including prescription, over-the-counter, herbal products, and supplements.

You may be instructed to temporarily stop taking certain medications because they could complicate surgery or interfere with other medications you might need. This may include non-steroidal anti-inflammatory drugs (NSAIDs) such as aspirin or ibuprofen. **Ask for specific instructions from your surgeon.**

If you are taking blood-thinning medications for any reason — such as heart stents, atrial fibrillation, or previous blood clots — contact the doctor who prescribes them. You will need to discuss your upcoming surgery and whether the medication can be stopped before surgery.

If you need pain medication during this time, you may take Tylenol®, Panadol®, Vicodin®, or Tylenol® with codeine. If you have any questions about what medications you should take, always ask your doctor or pharmacist.

If you have any questions about which of your medications to take before surgery, contact the doctor who prescribes them.

## Advance Directives

Mount Carmel supports and complies with our patients' advance directives for medical care. In order to comply with your wishes, we will ask you about a Living Will or Health Care Power of Attorney. If you have one or both of these documents, please bring a copy to the hospital. If you do not have an advance directive and would like information about writing one, talk with your nurse.

## Diet

Eat a well-balanced diet in the weeks before surgery. Be sure to include protein such as beef, chicken, fish, legumes, and eggs.

You will receive instructions from your surgeon's office about drinking a special nutritional beverage during the 5 days before your surgery. Although every patient will heal differently, this has been found to help patients recover from surgery with fewer problems. If you have questions about the instructions you are given, call your surgeon.

## Skin Care

Any cuts, open sores, or rashes need to be treated and healed before surgery. If you have any of these skin problems, report them to your surgeon.

## Smoking

Mount Carmel is tobacco- and smoke-free. The use of tobacco products —including cigarettes, electronic cigarettes, cigars, chewing tobacco, and pipes — is not allowed inside or outside any Mount Carmel buildings, properties, or parking structures.

If you are a smoker or tobacco user, it is important to quit at least a few weeks before surgery. Smoking greatly increases your risk of having complications after surgery including respiratory issues, pneumonia, delayed wound healing, and infections.

Talk with your doctor about quitting smoking and alternatives to smoking or tobacco products. Quitting smoking has a major impact on improving your health, and Mount Carmel supports your efforts to succeed. Ask a staff member for more information.

Other helpful resources include:

- **Smokefree.gov**
  The site www.smokefree.gov offers a Step-by-Step Quit Guide, Tools to Help You Quit, and professionals to help you (Talk to the Expert).
- **Ohio Tobacco Quit Line**
  1-800-QUIT-NOW (1-800-784-8669)
- **American Cancer Society Quit Line**
  www.cancer.org
  1-800-ACS-2345 (1-800-227-2345)

## Report Any Illness

Tell your surgeon right away if you become ill within 10 days before your surgery. This includes a cold, flu, fever, herpes outbreak, skin rash, infection, or a "flare-up" of a health problem. Sometimes even minor health problems can be quite serious when combined with the stress of surgery.

# Getting Ready for Surgery

**These guidelines are intended to provide general information about your care and should not replace your doctor's advice.**

## A Few Days Before Surgery

You will receive multiple phone calls in the days leading up to your surgery. These calls are critical in helping to prepare for your surgery. A hospital staff member will contact you to verify information, including instructions on which medications you should take the morning of surgery.

- Follow all instructions given by your doctor.
- Call your doctor right away if there are any changes to your health before your surgery, including a cold or other infections.

## The Day Before Surgery

Many details are involved in determining your final surgery time. Depending on where your surgery will be performed, you will be notified of your arrival and surgery times either at your pre-admission testing appointment or by phone. You may receive a call with additional information or time changes up to the evening before your surgery.

- Do not smoke, eat, drink, chew gum, or eat mints or candy after midnight the night before surgery until you are allowed to have fluids after surgery.
- You may be given instructions on showering with an antibacterial soap or a CHG solution the night before and the morning of surgery. Follow your surgeon's instructions.

## Bowel Prep

A bowel prep helps clear your colon of stool. You will be given instructions for your bowel prep — follow these carefully and ask any questions you may have. The prep is important in helping to:

- Prevent a wound infection
- Heal the ends of the colon together

Your surgeon may also have you take antibiotic pills the day before surgery.

## Diet

The day before surgery, your surgeon may have you eat a light breakfast and lunch and drink only clear liquids from noon to midnight. Examples of clear liquids are:

- Water and sports drinks
- Jell-O and popsicles (not red)
- Clear broth

## Making Certain Your Stomach Is Empty

- Do not have anything to eat or drink, including water and chewing gum, after midnight the night before surgery.
- Your bowel prep liquid is okay to drink during this time.
- If you are told to take antibiotic pills before surgery, take them with small sips of water.
- If you take any daily medications, ask your surgeon if you should take them on the morning of surgery.

## Packing for Your Hospital Stay

**Please bring:**

- A list of all your medications
- Health plan/insurance card
- Copy of your advance directives for healthcare, if applicable

**For your comfort:**

- Slippers and bathrobe
- Toiletries, toothbrush, toothpaste, comb, brush
- Glasses, hearing aids, and their containers (be sure to label containers)
- Your CPAP or breathing machine for sleep apnea, if applicable
- Your dentures or partials (remember to bring your container)
- Loose, comfortable clothing to wear home

**Leave at home:**

- All valuables such as money, jewelry, electronics, and credit cards

## The Day of Surgery

Before you come to the hospital:

- Shower as directed.
- Remove all jewelry, including wedding bands and body piercings. You may replace body piercings with temporary plastic posts before coming to the hospital. If you have rings that will not come off, please tell a staff member.
- Do not wear makeup, perfume, powders, lotions, or creams.
- You may brush your teeth, but do not swallow the water.
- Wear glasses instead of contacts or bring a container to remove your contact lenses before surgery.
- If you have been told to take certain medications the morning of surgery, take them with a small sip of water.
- Do not smoke or use tobacco products before your surgery.

# Your Surgery and Hospital Stay

## The Patient Care Team

You are the most important member of the healthcare team. Your health and wellbeing is our highest priority. In our efforts to make your hospital stay as comfortable as possible, you will be asked your preferences during your time with us. Please let the healthcare team know if you have any questions or concerns.

There are many other members of the healthcare team who will be working with you. They will provide care, evaluate your progress, and communicate with each other and with you and your family.

Your healthcare team will include specially trained physicians, nurses, oncology nurse navigators, patient care technicians, and physical therapists to care for you as you recover from surgery.

A number of other clinicians will work with you to meet your healthcare needs. These may include respiratory therapists, dietitians, social workers, occupational therapists, discharge planners, and nurse case managers.

## Your Surgery Day

### Registration

When you arrive at the hospital, go to Patient Registration. You will need to have your driver's license and insurance cards. You will receive a "Find" code to ensure your privacy and confidentiality. This is a four-digit number that only you can give out to family or friends. It is important for you to know that anyone calling or asking how you are doing cannot be told any information unless he or she has this code.

### Pre-operative Care Unit (Pre-op)

Once your paperwork is completed, you will be directed to the pre-operative area. You will change into a hospital gown. A nurse will take your blood pressure and temperature. An IV (intravenous) line will be inserted into your arm. This will be used to provide fluids and medications. One family member can be with you during this time.

The anesthesiologist will meet with you and review your health history and discuss the medication that will help you sleep during surgery. Please ask your surgeon or anesthesiologist any questions you have before your surgery.

Before surgery begins, you'll be given general anesthesia to put you into a controlled sleep while the surgery is being done. You will not feel any pain or remember the surgery.

### Surgery

Your surgeon will tell you how long it should take to complete the surgery. Family members should not be alarmed if your surgery takes longer. Surgery times are sometimes delayed or changed due to emergencies or cancellations. Every attempt will be made to notify your family if your surgery is delayed.

## During Surgery

After you go to sleep, a nasogastric tube or NG tube may be inserted. This tube goes into your nose and down into your stomach. It is used to remove fluids in your stomach until your stomach and bowel begin to work again after surgery.

You will have a tube put in to drain urine from your bladder. This is called a Foley catheter and will be connected to a drainage bag. The catheter will be removed as soon as possible after surgery so you will be able to urinate normally.

Compression devices are used to improve circulation in your legs and prevent blood clots. These are wraps that are placed on your legs. A pump is attached and forces air into the wraps, then releases it — acting like a massage.

Your heart rate, blood pressure, temperature, and breathing will be monitored during surgery.

## Post-Anesthesia Care

After surgery, you will go to the recovery room, also called the post-anesthesia care unit (PACU). This is where you will wake from anesthesia. You may have a dry mouth, nausea, itching, chills, or feel confused. Tell your nurse if you experience any of these symptoms. Also tell your nurse if you awaken with pain.

The nurses will monitor your vital signs such as your blood pressure, pulse, and temperature. They will also check the dressing (bandage) on your lower abdomen, along with any drains or tubes you may have. Most patients stay in the recovery room for 1 or 2 hours, although some patients require a longer stay.

Once you are awake and stable, you will be moved to a hospital room.

# Managing Your Pain

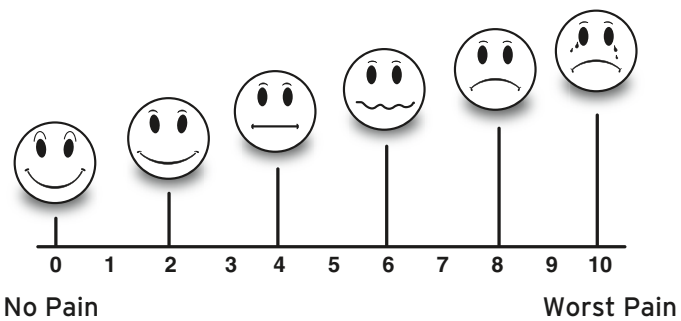
After surgery, some pain is to be expected while you are healing. You and your healthcare team will work together to manage your pain for a smoother recovery. Although we want your pain controlled, we do not want you too groggy or sedated.

You will be asked to rate your pain. This will help us know how your medication and other comfort measures are helping. You can use a number or choose a face on this scale that best rates your pain. Many people hesitate to report their pain and to take pain medication. It is most helpful to take pain medication before the pain becomes severe. If you wait too long to take pain medication, it becomes harder to get relief.

Your doctor and anesthesiologist will order medication to help manage your pain. This may include oral pain medication (pills) or intravenous (IV) pain medications. Your nurse will explain what medications are available to you and discuss other pain relief options.

Your pain medication may cause side effects such as nausea, itching, confusion, and constipation. Ask your nurse any questions you may have about side effects.

Talk to your healthcare team about other ways to relieve pain. Rest is not always the best solution, especially after surgery. You may find that changing your position in bed or getting up to a chair can make you more comfortable.



Ask your nurse for help to start walking as soon as your surgeon says it's okay. Activity improves your breathing, digestion, blood circulation, and healing. Get up to walk as soon as you are able to help prevent constipation and improve comfort.

Try taking your mind off the pain by listening to music, watching TV, reading, or visiting with family and friends. There are different distraction and relaxation techniques you can try. Talk with your nurse and care team about what you would like to try and what seems to work best for you. Although these comfort measures may not keep you pain free, they can provide some relief, especially in combination with your prescribed medication.

As you heal, your need for pain medication should decrease. Talk with your doctor if you have any questions or concerns about your pain management at any time during your recovery.

## Call, Don't Fall

After being in bed and taking pain medications, you may feel dizzy and unsteady when you get up. Because of this, you are at risk for falls, which could increase your recovery time and cause injuries.

**Always** call for help before getting out of bed until you are told you can get up by yourself.

Preventing a fall is a key part of your safety and recovery.

## Hand Hygiene

Preventing infection is important after surgery. One of the best ways to prevent infection is by washing your hands often — after using the bathroom, before meals, and before and after you touch your incision or change your dressing. Follow these five steps every time:

**Wet** your hands with clean, running water (warm or cold), turn off the tap, and apply soap.

**Lather** your hands by rubbing them together with the soap. Lather the backs of your hands, between your fingers, and under your nails.

**Scrub** your hands for at least 20 seconds.

**Rinse** your hands well under clean, running water.

**Dry** your hands using a clean towel or air dry them.

Soap and water are best, but an alcohol-based hand sanitizer that contains at least 60% alcohol can be used if your hands are not visibly soiled. Ask all visitors to wash their hands when they enter and leave your room. Don't be afraid to remind the staff about hand hygiene.

## Breathing Exercises

You will be taught coughing and deep breathing exercises to help keep your lungs clear and prevent pneumonia. You will also be instructed on how to use an incentive spirometer:

- Just after you exhale normally, put your lips tightly around the mouthpiece.
- Breathe in as deeply as you can. The meter will rise.
- When you feel that you've taken a full breath, keep trying to breathe in more and more for about 2 seconds.
- Repeat this deep breath action 10 to 15 times each hour while you are awake.

You can see how much air you have taken in by reading the number on the meter. Your breathing technique will improve as you are more awake, have less pain, and move around more. If you have trouble using the spirometer on your own, please ask your nurse or respiratory therapist for help.

# What to Expect After Surgery

## The Day of Surgery

- Fluids and antibiotics will be given through the IV line.
- There may be an NG tube down your nose into your stomach.
- A dressing will be on your lower abdomen. The nurse will be checking and caring for your dressing.
- You will be taught to cough and do deep breathing exercises. These should be done at least every 2 hours while you are awake to prevent pneumonia. You will be using a breathing device (incentive spirometer) to help you take deep breaths.
- A Foley catheter will be in place to drain urine from your bladder.
- Support stockings (TED hose) and compression pumps will be on your legs.
- You may not be able to eat or drink. If your surgeon allows, you may be given a small amount of ice chips.
- You will be helped up to a chair and encouraged to walk a short distance several hours after surgery. In addition to reducing recovery time, walking helps prevent blood clots and breathing problems (such as pneumonia). It also helps get your bowels working again after surgery.

## The First Three Days After Surgery

- You will continue to receive pain medication. Ask for medication before the pain gets severe. This makes it easier to manage your pain.
- Your dressing will be removed by the second day after surgery. The incision may be left uncovered. The dressings on the drains will be changed as often as needed.
- If you have an NG tube, it will remain in place until your stomach and intestines show signs of activity. These include a decrease in the amount of drainage from the NG tube, rumbling in the stomach, and passing gas.
- It is important for you to keep doing the breathing exercises and using your incentive spirometer every 2 hours while you are awake. This will help decrease your risk of pneumonia after surgery.
- You will begin drinking clear liquids (water, Jell-O, broth, or clear soda). When your stomach is able to handle liquids well, you will start eating soft foods.
- As you become more active, your doctor will order your Foley catheter removed.
- Activity is very important to your recovery from surgery. We will help you increase your activity level each day to help prevent blood clots and increase your bowel activity.
  - — getting up in a chair at least 3 times a day
  - — walking in the hall at least 3 times a day
  - — increasing the distance you walk each time

## Day Four to Day of Discharge

- Your discharge date will depend upon your condition and your surgeon's assessment of your progress. Before discharge, you will need to be able to eat a regular diet, be passing gas, have had a bowel movement, and your pain must be controlled with pain pills.
- It is important to increase your walking distance and the amount of time you spend out of bed. This is vital in getting your stomach and bowels active again as well as for your overall recovery.
- Throughout your hospital stay, you will be taught about your care and treatments. Ask any questions you have and tell us your concerns.
- A case manager can help you with special needs you may have for going home.
- You will receive discharge instructions from the healthcare team.
- Ask any questions you have about your care and instructions for going home.

## Follow-up Appointments

- If your incision has staples, they will be removed in your surgeon's office about 10 to 14 days after surgery.
- If your incision was closed with a special surgical glue called Dermabond, you will need to see your surgeon 3 to 4 weeks after surgery.
- If you have an ileostomy, you will need to see your surgeon 5 to 7 days after being discharged from the hospital.
- Your surgeon will talk to you about the surgery and about any further treatment you may need during your post-operative appointment.
- About a week after your discharge, the Oncology Nurse Navigator may call you to see how you are doing at home and remind you of future medical appointments.
- Please call your surgeon's office if you are having problems or concerns.

## Planning for Care After Surgery

The best place for you to recover from surgery is in your own home. Plan to have someone help you until you are safe with your daily routine.

There are times when other arrangements need to be made. If you live alone, your caregiver is unable to care for you, or you are having difficulty meeting physical therapy or healthcare goals, your multidisciplinary health care team may make other recommendations. It may be necessary for you to have home health care or be discharged to a skilled nursing or rehabilitation facility. The case manager will work with you in the selection of a facility. They will also work with your insurance company to determine eligibility.

# Going Home

## Guidelines for Home

These guidelines are intended to provide general information about your care and should not replace your doctor's advice. Be sure to follow your surgeon's discharge instructions if they are different from what is listed here.

Contact your surgeon _____

_____

at _____

if you have any of these symptoms:

- Temperature over 100.5 degrees F
- Abdomen is swollen
- No bowel movement within 4 days after discharge
- Diarrhea that lasts more than 3 days
- Bowel movements stop abruptly
- Wound edges separate or there is green or yellow drainage from the wound
- Increasing redness, swelling, warmth, or pain of the incision
- Nausea and vomiting that won't go away
- Pain in your abdomen that gets worse or is not relieved by pain medication
- Swelling in your legs

**Call 911 if you have chest pain or shortness of breath.**

## Activity

- You should walk as part of your recovery. Gradually increase your walking distance, but stop before you think you've reached your limit — don't overdo it. If you feel fine the next day, increase the distance a little bit.
- You may use the stairs, if permitted. Be sure to have someone with you the first time you go up the stairs.
- Do not lift more than about 10 pounds for the first 6 weeks after your surgery. A gallon of milk weighs about 10 pounds.
- Most people are able to return to work 4 to 6 weeks after they go home.

## Driving

- Do not drive for 4 weeks after your surgery or for the length of time your surgeon tells you. Check with your surgeon about this at your follow-up appointment.
- Do not drive while taking prescription pain medication.

## Wound Care

- Your incision is closed with dissolving sutures (stitches) under the skin and either staples or a special surgical glue (Dermabond) on the outside.
- Some surgeons may also place a Prevena wound vacuum to help with healing. The wound vacuum will stay in place for about 5 days and is then removed.
- You may shower, but do not take tub baths until your staples are removed.
- Gently wash your incision with soap and water and pat dry.
- After your staples are removed:
  - — Keep your wound dry for 2 days. You can sponge bathe during this time.
  - — After 2 days, you may shower. It's okay to get the Steri-Strips wet, but don't soak, scrub, or let the shower water beat on them. Over time, they will curl back and peel off.
  - — Don't take a tub bath until your wound is completely healed.

## Medication

- Take your regular medications, unless your surgeon or medical doctor has made a change.
- Pain medication
  - — Your surgeon will order pain medication to use at home.
  - — It takes about 30 minutes for the medication to start working, so don't let your pain get too severe before taking it.
  - — As you recover, your need for pain medications should decrease. As your pain lessens, you can take over-the-counter pain medicines such as acetaminophen (Tylenol®) or ibuprofen (Advil®) instead of your prescription medicine.

## Bowel Habits

Changes in bowel habits will depend on how much and what section of the bowel was removed. It may take time for your bowels to adjust after surgery. Over time, most patients find they develop a "new normal" bowel routine with dietary changes, medications, and fiber.

- Loose stools are common for the first 1 to 2 weeks after surgery.
- Call your surgeon if you have watery diarrhea that lasts for 3 days. This may be a sign of a bowel infection.
- Constipation
  - — Prescription pain medication can cause constipation.
  - — If the stool softener doesn't work, you can take milk of magnesia or polyethylene glycol (Miralax). If you still are not getting relief and/or are having nausea, vomiting, or are unable to pass gas or have a bowel movement, call your surgeon.

## Diet and Nutrition

After colon or rectal surgery, no two people react the same way to the same foods. You may find that you won't be able to eat some of the foods you were able to eat before surgery. Be patient and progress slowly.

- It is often helpful to eat meals at regular times, 3 or more times per day. Smaller meals produce less gas.
- Drink at least 8 ounces (1 cup) of fluid at least 8 times each day.
- Nutritional supplements or shakes may be used.
- Some foods may cause unpleasant side effects such as gas, diarrhea, or constipation. Add one food at a time to learn which foods, if any, bother you.

- If you find that a food gives you stomach or bowel problems, you may want to avoid it for a while and then try it again later. If it still gives you problems, you may want to avoid it in the future.
- Eat foods high in fiber, but add these foods back into your diet slowly. Bran cereals, whole grain breads, and fresh fruits and vegetables are good sources of fiber.
- Be sure to ask your surgeon or Oncology Nurse Navigator about seeing a dietitian if you have questions about your diet.

## Soft Diet

Your surgeon may recommend a soft diet for you after surgery.

A soft diet is useful when your body is ready for more than liquids but still not able to handle a regular diet. The diet consists of a variety of normal foods, cooked or prepared in such a way that they have a soft texture and are easier to digest.

Some examples of foods included in a soft diet are:

- Fluids such as coffee, juice, and soda
- Low-fat milk products, yogurt
- Mild-flavored cheese
- Cooked cereal
- Plain white rice
- Pasta
- Potatoes (mashed, baked, boiled)
- Cooked or canned fruits
- Fresh banana or avocado
- Soft-cooked or canned vegetables
- Moist, tender meats or fish
- Eggs
- White, wheat, or rye bread
- Ice cream, frozen yogurt, sherbet, custards, or puddings

## Foods to Avoid at First

- Foods that are hard to chew and swallow (raw fruits or vegetables and tough cuts of meat)
- Fried, greasy, and spicy foods
- High-fiber foods such as whole grain breads and cereals

## Adding Fiber

- Dietary fiber is the indigestible part of whole grains, vegetables, and fruits. Add these foods to your diet slowly — only 1 serving each day at a time.
- Your goal for dietary fiber is 5 servings per day or between 20 to 35 grams.
- You may want to start with ½ cup of cereal. If you do well with that, add a piece of fruit or ½ cup of salad.
- Remember that you may react differently to some foods, so if one doesn't go well, try something else.
- Drink 8 to 10 glasses of water per day. If you add fiber without enough water, you can become constipated.

# Common Diet Problems

## Diarrhea

When you start adding solid foods into your diet, avoid these foods at first, since they can cause loose stools or diarrhea:

- Baked beans
- Broccoli
- Chocolate
- Dried beans
- Heavily spiced foods
- Licorice
- Soup
- Spinach
- Very large meals

**Avoid drinking:**

- Beer
- A lot of coffee
- Prune juice
- Red wine
- Hot drinks

**Eat these foods, which can help if you have loose stools or diarrhea:**

- Applesauce
- Bananas
- Cream of rice
- Peanut butter
- Rice
- Tapioca
- Weak tea

## Constipation

To avoid getting constipated, you may want to try to:

- Increase your fluids, especially water
- Increase exercise, even if it means just a little extra walking
- Eat more fiber (add slowly, one at a time):
  - — Bran or whole grain cereals
  - — Fresh fruits
  - — Raw fruits and vegetables
  - — Vegetables
  - — Whole wheat bread
  - — Prunes or dates

## Gas

Having gas is normal, but large amounts can be uncomfortable. Studies have shown that diet can affect the amount of intestinal gas you produce. These foods may produce more gas:

- Fruits: apples, apricots, bananas, citrus fruits, raisins, and prune juice
- Vegetables: beans, broccoli, brussels sprouts, cabbage, carrots, cauliflower, celery, eggplant, lettuce, onions, and potatoes
- Bagels, bread, and pretzels
- Milk and milk products (try drinking Lactaid Milk or taking a Lactaid tablet with dairy products)
- Wheat germ

Dietary fat may cause increased pressure and bloating. Try decreasing the amount of fat in your diet.

## Follow-up Care

Follow-up care after treatment for colorectal cancer is important. Even when the cancer seems to have been completely removed or destroyed, the disease sometimes returns because undetected cancer cells remained after treatment.

Your surgeon and your medical oncologist will monitor your recovery and check for recurrence of the cancer. Checkups help ensure that any changes in health are noted and treated if needed. Checkups may include:

- A physical exam (including a digital rectal exam)
- Lab tests (including fecal occult blood test and CEA test)
- Colonoscopy
- X-rays
- CT scans
- Other tests

If you have any health problems between checkups, contact your family doctor.

## Depression

It is normal to have feelings of sadness, anxiety, or anger after a cancer diagnosis. If you feel down, sad, or hopeless for more than 2 weeks and these feelings are affecting your relationships and day-to-day life, you may have depression. Depression is a common, treatable medical illness that can be triggered by a major health change. Untreated depression can make it harder to cope with treatment and can interfere with your recovery. If you have symptoms of depression, talk to your doctor about treatment.

## Sources of Support

Living with a diagnosis of colorectal cancer may not be easy. You may feel worried or anxious at times. Concerns about treatments and managing side effects, hospital stays, and medical bills are also common.

Doctors, nurses, and other members of your healthcare team can answer questions about treatment, working, or other activities.

Meeting with a social worker, counselor, or member of the clergy may be helpful if you want to talk about your feelings or concerns.

Support groups also may help. In these groups, patients or their family members meet with other patients or their families to share what they have learned about coping with the disease and the effects of treatment. Groups may offer support in person, over the telephone, or on the Internet. You may want to talk with a member of your healthcare team about finding a support group.

If you are looking for spiritual direction, Mount Carmel can help. Chaplains are available by request, and our hospital chapels are open to the public 24 hours a day.

If you would like to speak with a chaplain while you are in the hospital, please do not hesitate to contact Chaplaincy Services. Ask your nurse or dial "0" on any in-house phone and ask for the duty chaplain.

At Mount Carmel, we understand that we are treating not only the illness but also the person living with the disease. You and your family have access to convenient and comforting support services during your cancer care and recovery.

# Colorectal Cancer Information and Support

## References

- **American Cancer Society**
  *If You Have Colon or Rectal Cancer*
  www.cancer.org
  800-227-2345

- **American Society of Colon and Rectal Surgeons**
  *Screening and Surveillance for Colorectal Cancer*
  www.fascrs.org
  800-791-0001

- **Cancer Support Community**
  *Frankly Speaking about Colorectal Cancer*
  www.cancersupportohio.org
  1200 Old Henderson Road
  Columbus, Ohio 43220
  614-884-HOPE (4673)

- **Colon Cancer Alliance**
  www.ccalliance.org
  877-422-2030

- **Colorectal Cancer Coalition**
  www.fightcolorectalcancer.org/
  877-427-2111

- **National Cancer Institute**
  *What You Need to Know about Cancer of the Colon and Rectum*
  www.cancer.gov
  800-422-6237

- **United Ostomy Associations of America**
  *Colostomy Guide*
  www.ostomy.org
  800-826-0826

## Enterostomal Therapist

Before surgery, you will be scheduled to see an Enterostomal Therapist (ET nurse) at the Mount Carmel Wound Care Clinic. This nurse has special training and is a certified Wound, Ostomy, and Continence Nurse.

At this appointment, the ET nurse will:

- Mark where your stoma will be on your abdomen.
- Teach you how to care for the stoma after surgery.
- Talk with you about lifestyle issues — emotional, physical, and sexual concerns.
- Provide information about resources and support groups.

During your hospital stay, an ET nurse will see you to:

- Provide more teaching and training for you and your family about caring for your ostomy.
- Teach you how to clean the area (where skin redness around the stoma is common) to prevent irritation and infection.

Before you are discharged from the hospital, the ET nurse will:

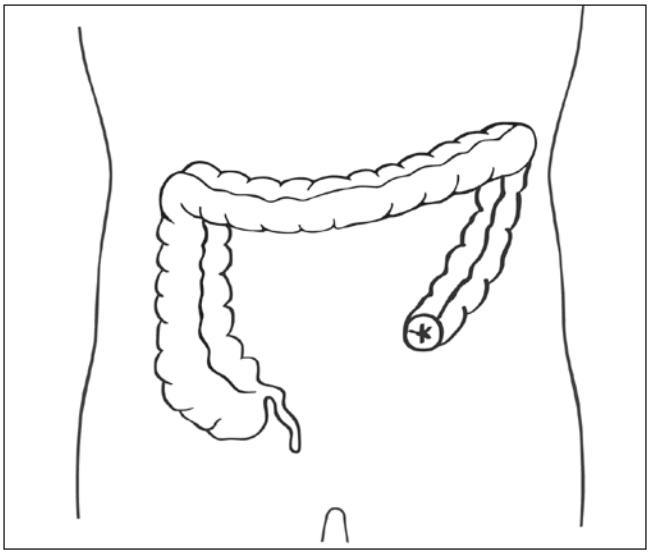
- Make sure you feel comfortable caring for your ostomy.
- Provide you with the supplies you need to care for your ostomy at home. A starter kit with product samples will be delivered to your home.
- Answer any questions you may have about lifestyle issues, resources, and support.

A case manager may arrange for a home health care company to send a nurse to visit you to:

- Make sure you are comfortable caring for your ostomy at home.
- Explain how to order the proper supplies that you need to care for your ostomy.

## Types of Ostomies

An ostomy is a surgically created opening that allows stool or urine to pass out of the body.



☐ **Colostomy:** The surgically created opening of the colon (large intestine) that results in a stoma. A colostomy is made when a portion of the colon or the rectum is removed and the remaining colon is brought to the abdominal wall. Output from colostomy may be semi-solid or solid depending on where the ostomy is created.

- **Temporary Colostomy:** Allows the lower portion of the colon to rest or heal. It may have one or two openings. If it has two, one will discharge only mucus.
- **Permanent Colostomy:** Usually involves the loss of part of the colon, most often the rectum. The end of the remaining portion of the colon is brought out to the abdominal wall to form the stoma.
- **Sigmoid or Descending Colostomy:** The most common type of ostomy surgery, in which the end of the descending or sigmoid colon is brought to the surface of the abdomen. The stoma is usually on the lower left side of the abdomen.
- **Transverse Colostomy:** The surgical opening created in the transverse colon resulting in one or two openings. It is located in the upper abdomen, middle or right side.
- **Loop Colostomy:** Usually created in the transverse colon. This is one stoma with two openings: one discharges stool; the second, mucus.
- **Ascending Colostomy:** This type of stoma is rarely used. The opening is made in the ascending portion of the colon. It is on the right side of the abdomen.
- **Ileostomy:** A surgically created opening in the small intestine, usually at the end of the ileum. The intestine is brought through the abdominal wall to form a stoma. Ileostomies may be temporary or permanent, and may involve removal of part or all of the entire colon. Ileostomy output is liquid.
- **Ileoanal Reservoir (J-Pouch):** This is now the most common alternative to the conventional ileostomy. Technically, it is not an ostomy since there is no stoma. In this procedure, the colon and most of the rectum are surgically removed. An internal pouch is formed out of the last portion of the ileum. An opening at the bottom of this pouch is attached to the anus. This allows the existing anal sphincter muscles to be used for bowel movement control and continence.

# Ostomy Equipment

## Pouching System

A pouching system is usually worn. Pouching systems include:

**Skin barrier** : This is also called a wafer. It is designed to protect the skin from the stoma output.

**Collection pouch**: The pouch attaches to the abdomen by the skin barrier. It is fitted over and around the stoma to collect the diverted output. The pouch is odor free.

## Types of Pouches

**Open-ended**: This type can be drained while left attached to the body. It needs a clamp or tail clip to keep it closed and sealed at the bottom.

**Closed-end:** Closed-end pouches are usually discarded after one use. They are most often used by patients who have regular bowel patterns.

## Types of Systems

**Two-piece:** The pouch can be changed while the barrier is left attached to the skin. This is part of a "flange" unit. It includes a closing ring that attaches to a mating piece on the flange — often a pressure-fit snap ring, similar to that used in Tupperware®.

**One-piece:** This consists of a skin barrier and a pouch joined together as a single unit. While it is simpler to change, you need to change the skin barrier when you change the pouch, because they are one unit.

## System Changes

The type of pouching system that is used in the hospital may need to be changed as healing occurs. Your stoma may shrink and may need a change in the size of the opening of your pouch. You may also find that you need to change the pouching system after you have recovered and are doing your regular activities.

Make an appointment 4 to 6 weeks after surgery with the Mount Carmel Health Wound Care Clinic (614-234-6588) to have your stoma measured and to evaluate your management system.

# Living with an Ostomy

**Work:** Other than jobs requiring very heavy lifting, a colostomy should not interfere with work. People with colostomies are in many fields such as business, teaching, carpentry, and healthcare.

**Friends and Family:** Each year, about 100,000 people of all ages have this surgery. So chances are you have socialized with people who have ostomies and you didn't know it. Today's devices are secure, lightweight, and unnoticeable. Whom and what you tell about your surgery is up to you.

Remember, this is a change to a **part** of your body. You are the same person, and there is no reason why your relationships with family and friends should change. Tens of thousands of ostomy patients attest to the fact that they lead active and enjoyable lives.

**Sex and Intimacy:** Sexual relationships and intimacy may be important and fulfilling aspects of your life that can continue after ostomy surgery. A period of adjustment after surgery is to be expected. Your attitude is a key factor in reestablishing sexual expression and intimacy.

**Showering and Bathing:** You can bathe or shower with or without your pouching system in place. Normal exposure to air or contact with soap and water will not harm the stoma, and water does not enter the opening. Choose a time for bathing when the bowel is less active. You can also leave your pouch on while bathing.

**Clothing:** You should be able to wear the types of clothing including swimwear that you wore before surgery. Some minor changes may be needed, such as larger pantyhose and underwear for women, or a larger athletic supporter for men who exercise.

**Sports and Activities:** With a securely attached pouch you can swim, camp out, play baseball and take part in almost all types of sports. Caution is advised in heavy-contact sports.

**Diet:** There may be some changes in your diet depending on the type of ostomy surgery. You should be able to return to your normal diet after a period of adjustment. Follow the advice of your surgeon, dietitian, and/or ostomy nurse regarding your diet and restrictions after surgery. Be sure to:

- Introduce foods back into your diet a little at a time.
- Monitor the effect of each food on the ostomy function.
- Chew your food well.
- Drink plenty of fluids.

Some less-digestible or high-roughage foods are more likely to lead to blockage problems. These foods include corn, coconut, mushrooms, nuts, and raw fruits and vegetables.

**Travel:** The only steps needed for traveling are advance planning and packing enough ostomy supplies.

# Food Effects Guidelines

When you have a new ostomy, it's helpful to know the effects that foods may have on your stoma output. Listed below are some general guidelines on food effects. You don't need to avoid foods you like, but try them in small amounts to see how they affect you.

| May block the stoma | May increase stools |
|---|---|
| Apple peels | Alcoholic drinks |
| Raw cabbage | Whole grains |
| Celery | Bran cereals |
| Chinese vegetables | Cooked cabbage |
| Whole kernel corn | Fresh fruits |
| Coconuts | Leafy greens |
| Dried fruit | Milk |
| Mushrooms | Prunes |
| Oranges | Raisins |
| Nuts | Raw vegetables |
| Pineapple | Spices |
| Popcorn | |
| Seeds | |
| **May produce gas** | **May produce odor** |
| Alcoholic drinks | Asparagus |
| Beans | Baked beans |
| Soy | Broccoli |
| Cabbage | Cabbage |
| Carbonated drinks | Cod liver oil |
| Cauliflower | Eggs |
| Cucumbers | Fish |
| Milk and dairy products | Garlic |
| Chewing gum | Onions |
| Nuts | Peanut butter |
| Onions | Some vitamins |
| Radishes | Strong cheese |

| May help control odor | May change color of stool |
|---|---|
| Buttermilk | Asparagus |
| Cranberry juice | Beets |
| Orange juice | Food colors |
| Parsley | Iron pills |
| Tomato juice | Licorice |
| Yogurt | Red Jell-O |
| | Strawberries |
| | Tomato sauces |
| **May help relieve constipation** | **May help control diarrhea** |
| Warm or hot coffee | Applesauce |
| Other warm or hot drinks | Bananas |
| Cooked fruits | Boiled rice |
| Cooked vegetables | Peanut butter |
| Fresh fruits | Pectin supplement (fiber) |
| Fruit juices | Tapioca |
| Water | Toast |

**Thank you for choosing**
**Mount Carmel for your surgery.**

Be certain to have your questions or concerns addressed before you go home.

*We wish you well in your recovery.*

August 2020

MOUNT CARMEL