



Canadian Cancer Society Société canadienne du cancer

Colorectal Cancer

Understanding your diagnosis



Let's Make Cancer History

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Colorectal Cancer

Understanding your diagnosis

When you first hear that you have cancer, you may feel alone and afraid. You may be overwhelmed by the large amount of information you will have to take in and the decisions you will need to make.

The introductory information in this brochure can help you and your family take the first step in learning about colorectal cancer. A better understanding may give you a sense of control and help you work with your healthcare team to choose the best care for you.

What is cancer?

Cancer is a disease that starts in our cells. Our bodies are made up of millions of cells, grouped together to form tissues and organs such as muscles and bones, the lungs and the liver. Genes inside each cell order it to grow, work, reproduce and die. Normally, our cells obey these orders and we remain healthy.

But sometimes the instructions in some cells get mixed up, causing them to behave abnormally. These cells grow and divide uncontrollably. After a while, groups of abnormal cells form lumps, or tumours.

Tumours can be either *benign* (non-cancerous) or *malignant* (cancerous). Benign tumour cells stay in one place in the body and are not usually life-threatening.

Malignant tumour cells are able to invade nearby tissues and spread to other parts of the body. Cancer cells that spread to other parts of the body are called *metastases*.

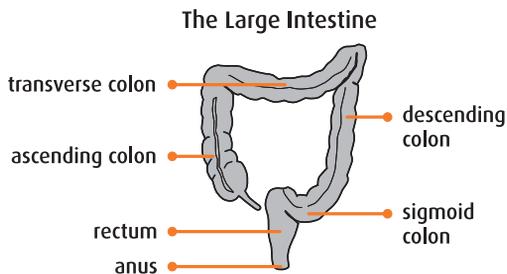
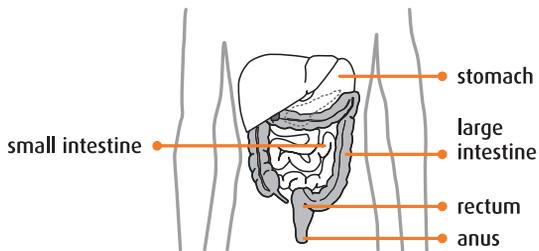
The first sign that a malignant tumour has spread (metastasized) is often swelling of nearby lymph nodes, but cancer can spread to almost any part of the body. It is important to find and treat malignant tumours as early as possible.

Cancers are named after the part of the body where they start. For example, cancer that starts in the colon but spreads to the liver is called colon cancer with liver metastases.

What is colorectal cancer?

Most colorectal cancers start in the cells that line the inside of the colon or the rectum. The colon and rectum make up the large intestine (*large bowel*). The large intestine is the last part of the digestive system. Organs of the digestive system change food into energy and help pass waste out of the body.

Food is digested in the stomach and the small intestine. As nutrients are removed from food, it changes into a watery mass. The watery mass passes through the small intestine into the colon. The colon absorbs the water, and the semi-solid waste continues to travel to the rectum. This waste material is known as feces, or stool. The stool is stored in the rectum. When you have a bowel movement, the stool leaves the body through the anus.



Colorectal cancer usually grows slowly and in a predictable way. It is curable when diagnosed at an early stage.

Causes of colorectal cancer

There is no single cause of colorectal cancer, but some factors increase the risk of developing it:

- age - particularly after 50
- family history of colorectal cancer - especially if the relative (parent, sibling, child) developed colorectal cancer before the age of 45
- having polyps (small growths on the inner wall of the colon or rectum)
- having familial adenomatous polyposis (FAP), hereditary non-polyposis colorectal cancer (HNPCC) or other rare genetic conditions
- physical inactivity
- obesity
- a diet high in red meat
- eating processed meat
- alcohol consumption
- inflammatory bowel disease (ulcerative colitis or Crohn's disease)
- smoking
- ethnic background - people of Ashkenazi (Eastern European Jewish) descent

Some people develop colorectal cancer without having any of these risk factors.

Symptoms of colorectal cancer

Colorectal cancer may not cause any signs or symptoms in its early stages because the lower abdomen (stomach area) has lots of room for a tumour to grow and expand. Symptoms often appear once the tumour causes bleeding or blocks the bowel. Possible symptoms include:

- a change in bowel habits
- blood (either bright red or very dark) in the stool
- diarrhea, constipation or feeling that the bowel does not empty completely
- stools that are narrower than usual
- general abdominal discomfort (frequent gas pains, bloating, fullness or cramps)
- unexplained weight loss
- feeling very tired
- vomiting

Other health problems can cause some of the same symptoms. Testing is needed to make a diagnosis.

Diagnosing colorectal cancer

Your doctor may suspect you have colorectal cancer after talking with you about your health and completing a physical examination, or because a stool test showed a problem. To confirm the diagnosis, your doctor will arrange special tests. These tests may also be used to “stage” and “grade” the cancer. You may have one or more of the following tests.

Blood tests: Blood is taken and studied to see if the different types of blood cells are normal in number and appearance. The results show how well your organs are working and may suggest whether or not you have cancer. A blood test might show that you have anemia as a result of blood loss from the cancer or that a protein called CEA (carcinoembryonic antigen) is in your blood. The amount of CEA in your blood may give information about whether or not the cancer has spread.

Imaging studies: Imaging studies allow tissues, organs and bones to be looked at in more detail. Using x-rays, ultrasounds, CT scans, MRIs or bone scans, your healthcare team can get a picture of the size of the tumour and see if it has spread. These tests are usually painless and do not require an anesthetic (freezing).

You may have a *barium enema*, which is an x-ray of the entire colon. The colon is filled with a special dye called barium, using a tube placed in the rectum. The barium helps the lining of the intestine show up on the x-ray. You might find the test uncomfortable or embarrassing, but it is very useful in diagnosing colorectal cancer.

Biopsy: A biopsy is usually necessary to make a definite diagnosis of cancer. Cells (or tissue) are removed from the body and checked under a microscope. If the cells are cancerous, they may be studied further to see how fast they are growing. There are many ways to do a biopsy.

To diagnose colorectal cancer, tissue samples may be taken during a *colonoscopy* or a *sigmoidoscopy*. Both of these tests use a thin, flexible tube with a light and camera at the end to see inside the intestine. A video or photographs may be taken. During a colonoscopy, your doctor looks at the inside of the entire colon. During a sigmoidoscopy, your doctor looks at the inside of the rectum and a section of the colon called the sigmoid colon. You will be offered medication to make the test more comfortable.

Staging and grading

Once a definite diagnosis of cancer has been made and your healthcare team has the information it needs, the cancer will be given a stage and a grade.

The cancer stage describes the tumour size or how far it has grown into the colon or rectum wall. It also tells whether the cancer has spread beyond the place where it started to grow.

For colorectal cancer, there are five stages.

Stage	Description
0	Cancer is found in the inner lining of the colon or rectum.
1	Cancer has spread from the inner lining into the middle layers of the colon or rectum wall.
2	Cancer has spread outside the colon or rectum to nearby tissues.
3	Cancer has spread outside the colon or rectum to nearby lymph nodes.
4	Cancer has spread outside the colon or rectum to another part of the body.

To find out the grade of a tumour, the biopsy sample is examined under a microscope. A grade is given based on how the cancer cells look and behave compared to normal cells. This can give your healthcare team an idea of how quickly the cancer may be growing. There are three grades.

Grade	Description
1	Low grade – slow growing, less likely to spread
2	Moderate grade
3	High grade – tend to grow quickly, more likely to spread

It is important to know the stage and grade of the cancer. This information helps you and your healthcare team choose the best treatment for you.

Treatments for colorectal cancer

Your healthcare team will consider your general health and the type, stage and grade of the cancer to recommend what treatments will be best for you. You will work together with your healthcare team to make the final treatment choices. Talk to them if you have questions or concerns.

Treatments affect everyone in different ways. It's hard to predict which side effects you will have. Your healthcare team will tell you what to expect with each treatment. They will also let you know which side effects you should report right away and which ones you can wait to tell them about at your next

appointment. If you notice any side effects or symptoms that you did not expect, talk to a member of your healthcare team as soon as possible.

Patients often worry about the side effects of treatment. However, side effects can often be well managed and even prevented with medicine. Be open with your healthcare team. Tell them your concerns and ask questions. They will help you get the care and information you need.

For colorectal cancer, you might receive one or more of the following treatments.

Surgery: A decision to have surgery depends on the size of the tumour and where it is in the intestine. During the operation, all or part of the tumour and some healthy tissue around the tumour are removed. Surgery is done under general anesthetic (you will be unconscious), and you may stay in the hospital for several days after the surgery.

Very small tumours may be removed by inserting a tube through the rectum.

For larger tumours, it may be necessary to remove the piece of intestine containing the cancer. The surgeon may be able to sew the healthy parts of the intestine together. If this isn't possible, the colon will be brought through an opening in the abdomen. This lets the body's waste pass directly from the colon through the opening in the skin and into a bag that can be emptied regularly. This is called a *colostomy*. A colostomy may

be permanent or you may need it only until the rectum heals. Most people learn to manage a colostomy very well and continue to enjoy life as before.

After surgery, you may have some pain or nausea, or you may not feel like eating. These side effects are temporary and can be controlled.

Radiation therapy: In *external beam radiation therapy*, a large machine is used to carefully aim a beam of radiation at the tumour. The radiation damages the cells in the path of the beam – normal cells as well as cancer cells. Radiation therapy can be used for both colon and rectal cancer but is more commonly used for rectal cancer. It is sometimes given after surgery to reduce the risk of the cancer coming back.

Side effects will be different depending on what part of the body receives the radiation. You may feel more tired than usual, have some diarrhea or notice changes to the skin (it may be red or tender) where the treatment was given. These side effects are a result of damage to normal cells. The side effects will usually go away when the treatment period is over and the normal cells repair themselves.

Chemotherapy: Chemotherapy may be given as pills or by injection. Chemotherapy drugs interfere with the ability of cancer cells to grow and spread, but they also damage healthy cells. Although healthy cells can recover over time, you may experience side effects from your treatment like nausea, vomiting, sore mouth, loss of appetite, fatigue, hair loss and an increased risk of infection.

Chemotherapy is sometimes used after surgery to reduce the risk of the cancer coming back.

Biological therapy: New and promising biological therapies are being used to treat some stages of colorectal cancer.

Biological therapy is a treatment that uses the immune system to fight cancer or to help control side effects of other cancer treatments. Natural body substances or drugs are used to boost the body's own defences against illness. Some biological drugs can target specific cells without damaging healthy cells. If you experience any side effects, they may include rashes or swelling where the treatment is injected, flu-like symptoms or lowered blood pressure.

Clinical treatment trials: Clinical treatment trials investigate new approaches to treating cancer, such as new drugs, new types of treatments or combinations of existing treatments. They are closely monitored to make sure that they are safe for the participants. Ask your doctor if there is a clinical trial suitable as a treatment option for you. You may benefit and so may future cancer patients.

Complementary therapies: Complementary therapies are used *together with* conventional treatments. More research is needed to understand if these therapies are effective and how they work.

Alternative therapies are used *instead of* conventional treatments. Alternative therapies haven't been tested for safety or effectiveness. It's not known whether they will harm you or be effective in the treatment of cancer.

If you are thinking about using a complementary or alternative therapy, find out as much as you can about the therapy and talk to your healthcare team. It's possible that the therapy might interfere with test results or regular treatments.

After treatment

Follow-up care helps you and your healthcare team monitor your progress and your recovery from treatment. At first, your follow-up care may be managed by one of the specialists from your healthcare team. Later on, it may be managed by your family doctor.

The schedule of follow-up visits is different for each person. You might see your doctor more often in the first year after treatment and less often after that.

After treatment, you may need to be careful about what you eat. Ask your healthcare team for help and advice.

The end of cancer treatment may bring mixed emotions. You may be glad the treatments are over and look forward to returning to your normal activities. But you could feel anxious as well. If you are worried about your treatment ending, talk to your healthcare team. They are there to help you through this transition period.

Living with cancer

There are many sources of help available for people with cancer and for their caregivers.

Your healthcare team: If you need practical help or emotional support, members of your healthcare team may be able to suggest services in your community or refer you to cancer centre staff or mental health professionals.

Family and friends: Those closest to you can be very supportive. Accept offers of help. When someone says, “Let me know how I can help,” tell them what they can do. Maybe they can run errands, cook a meal or give you a ride to your doctor’s office.

People who have had a similar experience: Consider visiting a support group or talking with a cancer survivor in person, over the telephone or online. Talking with and learning from others who have had similar experiences can be helpful. Try more than one option to see which one suits you best.

Yourself: Try to stay positive. Staying positive is about figuring out how to deal with cancer in the best way that you can – and everyone will do this their own way. It doesn’t mean that you must seem happy or cheerful all the time or avoid talking or thinking about the difficulties of having cancer. But it can mean looking after yourself by finding relaxing, enjoyable activities that refresh you mentally, spiritually or physically.

What we do

The Canadian Cancer Society fights cancer by:

- doing everything we can to prevent cancer
- funding research to outsmart cancer
- empowering, informing and supporting Canadians living with cancer
- advocating for public policies to improve the health of Canadians
- rallying Canadians to get involved in the fight against cancer

Contact us for up-to-date information about cancer, our services or to make a donation.



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