Understanding Colorectal Cancer
A guide for patients and caregivers
What Is Colorectal Cancer?

Cancer occurs when cells in the body grow out of control. With normal cells, there is controlled cell growth and programmed cell death. When cells become cancerous, the speed at which they grow and multiply, as well as the process that causes normal cell death, becomes altered. The cells begin to grow abnormally.

In many cases, the cells grow in a group, known as a tumor. Not all tumors are called cancer. If a tumor is known as malignant, it has the ability to invade or grow into other groups of cells or parts of the body. This process is called metastasis, and these kinds of tumors are known as cancer. If the cells are not able to invade other areas, then the tumor is known as benign. Benign tumors are rarely life threatening.

Colorectal cancer (CRC) is cancer, or a tumor, that occurs in the colon or rectum of the body. The colon and rectum are parts of the digestive system, specifically the intestines. Because cancers are named for the place where the cancer started, it means the first tumor occurred in the colon or rectum, and it will always be called CRC, even if it has spread to other organs, such as the liver. If the cancer has spread to parts of the body other than the colon or rectum, it is called metastatic CRC. About 19% of patients who are diagnosed with CRC are said to have metastases (tumors in parts of the body other than the primary site) at the time of diagnosis.

Where Can CRC Occur?

Colorectal cancer can also be known simply as colon cancer or rectal cancer, depending on where in the digestive tract the cancer is located. The colon is a section of the large intestine, which goes from an area called the cecum to an area called the rectum. Colon cancer can be found anywhere along the length of the colon.

The colon itself is divided into 4 main sections:
- Ascending colon
- Transverse colon
- Descending colon
- Sigmoid colon

The picture below shows the colon and rectum and their various sections. Use the figure to discuss with your doctor where your cancer is located.

![Colon and rectum diagram](http://visualsonline.cancer.gov/details.cfm?imageid=2512)

How does CRC start?

CRC begins as small tumors in the digestive tract, known as polyps. These small tumors do not need to be cancerous or malignant. The polyps that do have the potential to grow out of control and invade other areas are known as adenomas. These account for the majority of CRC cases, and they develop most often in people aged 50 and older, over the course of 7 to 15 years.
What Kinds of CRC Are There?

Colorectal cancer is a term for any cancer that first develops in the large intestine or rectum. There are several causes or kinds of cancer that can occur in the large intestine or rectum.

Adenocarcinomas
Adenocarcinomas are adenomas or polyps that have become cancerous or malignant and can spread to other areas of the body. They begin as small polyps in the bowel. They can be caused by some genetic predispositions, but commonly occur randomly or sporadically. Adenocarcinomas are the most common type of CRC and lead to more than 95% of all cases.1,4

Carcinoid tumors
These are very small tumors that start in cells that can produce hormones or other compounds active in the body. They can occur throughout the digestive or endocrine systems. They are more common in the small intestine than the large intestine.1,4

Gastrointestinal lymphoma
Non-Hodgkin lymphoma is a type of cancer that affects immune cells, typically in the lymph nodes. This type of cancer can sometimes occur outside of the lymph nodes. When it does, the gut is the most common location.1,4

Gastrointestinal stromal tumors (GISTs)
These are tumors that begin in fatty, connective, or muscle cells. These tumors can be found anywhere in the digestive tract but they are unusual in the colon.1,4

What Are the Signs and Symptoms?

Colorectal cancers can be asymptomatic for many years before being detected. Symptoms usually occur when the cancer is more advanced, and many of these cancers are found and diagnosed after symptoms appear.4

Common signs and symptoms of CRC1,5
- Blood in the stool
- Constipation
- Diarrhea
- Fatigue and weakness
- Feeling bloated
- Feeling of incomplete bowel movement (not relieved)
- Nausea or vomiting
- Pain and cramps
- Rectal bleeding
- Weight loss

Carcinoid tumors can also be associated with other specific signs and symptoms, including skin flushing, cough or wheezing, and cardiac changes.4
How Common Is CRC and Who Can Get It?

Colorectal cancer represents 9-10% of new cancer cases in the US. More than 90% of CRC occurs in people who are older than age 50.

Risk factors for CRC

Over 75% of new cases occur in people who have no known predisposing risk factors for developing CRC. However, there are some known risk factors that could mean certain people have a higher chance of developing CRC.

<table>
<thead>
<tr>
<th>Risk factors for colorectal cancer</th>
<th>Screening and detection methods</th>
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<tbody>
<tr>
<td><strong>Inflammatory bowel disease (IBD)</strong></td>
<td>- One of the most common medical procedures in the United States</td>
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<td>• After 10 years of active IBD, CRC risk increases by about 30%</td>
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<td>• Likely due to damage caused by inflammation of the colon</td>
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<td><strong>Family history (no known genetic cause)</strong></td>
<td>- Directly examines the lower half of the colon (sigmoid) using a lighted scope</td>
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<tr>
<td>• Accounts for 15-20% of people at high risk for CRC</td>
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<tr>
<td>• With a family history, cancer is likely to occur before age 55</td>
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<tr>
<td><strong>Rare genetic syndromes</strong></td>
<td>- Detects blood in the stool, which is often a symptom of CRC</td>
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<tr>
<td>• Rare genetic syndromes account for only a small percentage of high-risk people (&lt;10%)</td>
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<tr>
<td>• FAP (familial adenomatous polyposis)</td>
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<tr>
<td>— 1% of new CRC cases annually</td>
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<td>— Causes hundreds of polyps to develop by age 30, CRC by age 40</td>
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<tr>
<td>• HNPCC (Lynch syndrome)</td>
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<td>— 4-6% of new cases each year</td>
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<tr>
<td>— Development of premalignant polyps at an earlier age, with increased risk of CRC</td>
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<tr>
<td><strong>Diet</strong></td>
<td>- Virtual colonoscopy</td>
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<tr>
<td>• Diet high in fat, high in refined carbohydrates, and low in fiber has been linked to possible CRC risk</td>
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How Is CRC Detected and Monitored?

It’s important to screen for colorectal cancer, especially in the absence of signs and symptoms. There are several common procedures that doctors use to screen for and detect cancer in the colon and rectum. These same methods can also help with diagnosis and follow-up of any cancers found.
What Is Cancer Staging?

If cancer is found through one of the screening or diagnosis methods, a biopsy or sample will be taken. It is then staged after pathologic examination to find out the extent of the cancer. The stage of the cancer is based on many factors, such as how far into the intestine wall the cancer has grown, whether or not it has invaded or spread to nearby organs or body tissues, and whether or not the cancer has spread to lymph nodes or distant organs.

Your doctor may describe the cancer as any of the stages shown below.

| Cancer stages\textsuperscript{10,11} |  
|---|---|
| **Stage 0** | • Also known as carcinoma in situ  
• Cancer is found in only the inner lining of colon or rectum  
| **Stage 1** | • Cancer has not yet passed the intestinal wall  
• Cancer has not yet spread to other organs and is found only within the colon or rectum  
| **Stage 2** | • Cancer has grown into or through the wall  
• It may have spread to some nearby organs or tissues  
• Cancer has not yet spread to regional lymph nodes  
| **Stage 3** | • Cancer has spread to regional lymph nodes  
| **Stage 4** | • Cancer has spread to other parts of the body, such as liver, lung, ovary, or nonregional lymph nodes  
• Known as metastatic cancer  

How Is CRC Treated?

Colorectal cancer has a variety of treatments available. Many of the treatments can be used either together or one after the other. Your cancer specialist, or oncologist, determines what the best treatment is for each individual patient.

**Surgery**\textsuperscript{1,10,11}  
- Often the first treatment used for earlier stage colon and rectal cancer  
- Surgeon may remove the cancer itself or a section of the colon or rectum  
- Nearby lymph nodes may also be removed

**Chemotherapy**\textsuperscript{1,10}  
- Cancer-fighting drugs that are given either orally or through infusion  
- These drugs are typically given when the cancer is stage 3 or 4  
- Can also be given in select stage 2 cases, where cancer is at high risk of advancing  
- Can also be given prior to or following surgery

**Targeted therapy**\textsuperscript{1}  
- Another group of cancer-fighting drugs that attack specific cells in the body  
- Includes monoclonal antibodies, which recognize specific parts of cells and target them  
- Can be used alone or in combination with chemotherapy

**Radiotherapy**\textsuperscript{1}  
- High-intensity beams are directed at the cancer cells  
- Seldom used in metastatic colon cancer  
- In rectal cancer, usually given before or after surgery; often given along with chemotherapy
How Can I Prepare for Treatment?

Cancer itself has some signs and symptoms, and cancer treatments often have side effects. Everyone responds to treatment differently, so it is important to talk to your doctor when you begin therapy and at each visit. Discuss the possible side effects you may experience, when to report them, and how to manage them. It is important to receive your treatment on time, as scheduled by your doctor. Be sure to talk to your doctor about your activities so a treatment plan and schedule can be developed for you. You should also tell your doctor about all the medications you currently take, including any that do not require a prescription.

The following are some basic cancer care tips, which you can discuss with your doctor.

Fatigue

Fighting cancer can make you feel tired. This is normal and does not mean the therapy isn’t working.

• Get plenty of rest before and after any treatment (at least 8 hours)
• Schedule naps during the day to keep your strength up
• Ask your doctor or nurse to recommend mild exercise to keep you energized

Appetite

Cancers in the digestive system and their treatment can affect appetite, so it is even more important to continue eating right.

• Try eating foods that are easy to digest and lower in fiber
• Break up your meals into several smaller meals per day

Nausea

If you begin to feel nauseous or sick to your stomach, there are things you could do to try to alleviate the feeling.

• Eat and drink slowly to keep from upsetting your stomach
• Eat several smaller meals a day instead of 3 larger meals
• Avoid foods that are too hot or too cold if they make you feel sick
• Drink enough liquids during the day to keep from being dehydrated
• Go for a short walk after eating

There are other side effects that can occur with treatment. If you have questions or experience any side effects, be sure to talk to your doctor.

Caregiver Tips

As a caregiver of someone who is fighting cancer, it is especially important to be supportive and observant. Your loved one will likely feel tired and even emotional throughout the treatment course. Be sure to talk about what the patient is feeling and what kind of side effects he or she may be experiencing, and contact a healthcare provider with any questions or concerns.

Questions to ask the healthcare team

• What can I do to help?
• When should I call the doctor?
• What kinds of side effects should I look for?
• Should I keep a journal or log of observations and questions?
• What can be done so treatment is not missed?

Resources for caregivers and patients

American Cancer Society
www.cancer.org
1-800-227-2345

CancerCare
www.cancercare.org
1-800-813-HOPE (4673)

Breakaway From Cancer
www.breakawayfromcancer.org

National Cancer Institute
www.cancer.gov

Chemotherapy.com
www.chemotherapy.com

Colon Cancer Alliance
www.ccalliance.org
1-877-422-2030

National Alliance for Caregiving
www.caregiving.org