

Cancer Facts

COLORECTAL HEALTH

Many conditions of the digestive system can affect the colon and rectum. Of these conditions, colorectal cancer claims more lives annually in the United States than any other. In fact, it is the second leading cause of cancer death and the third most common type of cancer in this country.

Colorectal cancer is different from other cancers in that fighting it primarily means screening for precancerous growths – i.e., polyps – rather than for the cancer itself.

What are polyps?

Colorectal polyps are bumps or growths on the inside lining of the colon or rectum. Polyps themselves are benign and do not cause cancer. However, most colorectal cancer develops in or at the site of polyps. Since 90 to 95 percent of all colon cancers stem from polyps, removing them helps to prevent cancer.

There are different types of polyps. Adenomatous polyps, also called adenomas, are of greatest concern because they are most likely to become cancers. Inflammatory and hyperplastic polyps are also found in the colon and rectum; inflammatory polyps are not precancerous, but some hyperplastic polyps may be, particularly if they appear in certain parts of the colon.

What is colorectal cancer?

Colorectal cancer is cancer located in the colon or rectum. Like the more than 100 other types of cancer, colorectal cancer is the result of cells becoming abnormal and dividing uncontrollably. When cells keep dividing to form new cells even though none are needed, a mass of tissue forms; if the cells in this mass of tissue are a type that can invade and damage other tissues or organs or can spread to other parts of the body, the mass is a cancer.

The colon and rectum are among the most common sites for cancer to occur. Together, these two parts of the digestive tract form the large bowel or large intestine. This organ, situated in the abdominal cavity, absorbs water into the body from materials that remain in the tract after digestion, leaving solid waste or stool. Stool moves through the colon and rectum, leaving the body through the anus.

How are polyps or colorectal cancer found? Do I need a test?

Based on nationally accepted guidelines for screening, everyone should have these recommended screening tests beginning at age 50:

- Fecal occult blood test – every year
- Flexible sigmoidoscopy – every five years (can be combined with fecal occult blood test)
- Colonoscopy – every 10 years
- Double contrast barium enema – every five years

In the sigmoidoscopy procedure, your specialist will examine the large bowel using a thin, flexible, lighted tube (a type of endoscope called a sigmoidoscope) inserted through the rectum. The sigmoidoscope permits your doctor to examine the lower third of the colon. A colonoscopy is a similar procedure, using a longer version of the sigmoidoscope, called a colonoscope, to examine the entire colon. If polyps or other suspicious growths are found, your specialist can remove them during the exam, using the scope.

Another, less-invasive test is a virtual colonoscopy, a newer procedure that takes advantage of CT scan technology to produce images of the entire colon. Although virtual colonoscopy, like colonoscopy, requires bowel preparation prior to the procedure, it does not involve the use of a scope. However, the U.S. Food and Drug Administration has not yet approved virtual colonoscopy for routine colon cancer screening.

Individuals at higher-than-average risk for colorectal cancer, such as those with a personal or family history of cancer, should discuss a schedule for testing with their doctor. Genetic testing may also be important to assess risk in other family members.

Why are polyps and colorectal cancer such important issues?

Removing polyps, which are risk factors, can prevent colorectal cancer.

Colorectal cancer claims more lives than any other cancer, except lung cancer. Yet, this disease is often the least talked-about form of cancer. Patients' reluctance to discuss symptoms of colorectal cancer with a doctor, because of embarrassment, and to receive periodic screenings needlessly costs thousands of lives each year.

What are the symptoms of polyps or colorectal cancer?

Colorectal cancer has a number of signs and symptoms:

- Changes in bowel or stool habits, such as diarrhea or constipation
- Blood in the stool
- Bleeding from the rectum
- Abdominal discomfort – bloating, fullness or cramps
- Frequent gas pains
- Unexplained weight loss
- A feeling that the bowel doesn't empty completely
- Constant fatigue

Many of these signs and symptoms are also associated with other conditions, especially other types of digestive disorders. Although less likely, polyps can also cause symptoms in some instances.

See your doctor if you experience these symptoms.

What causes polyps and colorectal cancer, and are there ways to reduce risk?

The ultimate cause of cancer remains unknown. However, research has linked certain hereditary and dietary factors to the development of adenomatous polyps and colorectal cancer. These risk factors include:

- Age – Colorectal cancers occur most often in people over 50, and the risk increases with age.
- Smoking – Smokers have a significantly increased chance of dying from colorectal cancer.
- Family history – Close relatives of a person with colorectal cancer are at greater risk of developing this cancer at an earlier age. (Also, rates of colorectal cancer are higher in the African American population.)
- Familial polyposis – This is an inherited condition in which hundreds of polyps develop in the colon and rectum. Without treatment, a person with this condition is almost certain to develop colorectal cancer.
- Ulcerative colitis or Crohn's disease – These diseases cause inflammation of the colon. The longer patients are affected, the greater their risk of colon cancer.
- Diet – The risk of the disease appears to be higher in people whose diet is high in fat, low in fruits and vegetables, and low in fiber-rich foods such as whole-grain breads and cereals.
- Diabetes – People with diabetes have a significantly increased chance of developing colorectal cancer.
- Alcohol – Heavy alcohol intake is linked to the development of colorectal cancer.

Eating a lot of fiber produces stool that moves more rapidly through the large intestine, reducing the amount of time that damaging waste materials are in contact with the colon and rectum. In addition, cabbage-family (cruciferous) vegetables such as cabbage, cauliflower, broccoli, kale and Brussels sprouts may actually prevent colorectal cancer by increasing the body's output of certain cancer-inhibiting enzymes.

Doctors and nutritionists alike encourage Americans to eat 20 to 30 grams of fiber a day; consume more whole-grain breads, cereals, beans, and fresh fruit and vegetables; and cut down on meat, eggs, dairy products and oils to reduce daily fat intake. They also suggest maintaining a regular regimen of exercise. Talking to your healthcare professional about colorectal cancer and following guidelines for colorectal health and screening can help to decrease your risk of this cancer.

Prevention and early detection are possible because most colorectal cancers develop from adenomatous polyps. Polyps are noncancerous growths in the colon and rectum. Removing them can lower a person's cancer risk.

What if the screening test reveals suspicious areas?

If your specialist finds a small polyp, he or she will usually remove it, often in the same endoscopic exam. Even if the polyp does not appear cancerous, it may become cancerous; therefore, it is normally taken out. The hospital's lab will examine the polyp to see if it has any areas indicating cancer.

If your doctor sees a large polyp, tumor or other abnormality, the first step may be a biopsy. The specialist takes out a small piece of tissue through the colonoscope. Examining the tissue helps determine if the area is cancerous or benign, or the result of inflammation.

Your medical team may use a follow-up colonoscopy procedure to remove small, limited areas of precancerous or early-cancerous tissue or discrete tumor. For more significant or established cancer (higher-stage cancer), abdominal surgery may be necessary.

Do I need a second opinion?

Polyp removal is a widely accepted preventive step; however, treatment decisions for actual colorectal cancer can be more complex. Before starting such treatment, patients might want another doctor to review the diagnosis and the treatment plan. Here are ways to find another doctor for a second opinion:

- Patients can call the Jefferson Cancer Network at **1-800-JEFF-NOW**.
- Ask your doctor to suggest a specialist.
- Contact a local medical society, nearby hospital or medical school.

Is surgery the only treatment needed?

For polyps, removal through the colonoscope is the only treatment needed.

For colorectal cancer, surgery is the normal treatment and is often the only treatment needed when the cancer is detected early. In some cases, your specialist can remove the cancer using colonoscopy. Often, an open surgical procedure will be required. Treatment may also include radiation therapy before, during or after surgery; chemotherapy after surgery; or immunotherapy to strengthen the body's immune system so it can attack and destroy cancer cells.

These cancer treatments may be given separately or in combination. Your doctor will recommend the treatment methods best for you, depending on the size of the tumor, the stage of malignancy and whether it has metastasized, or spread, as well as other factors

If I have colorectal cancer, will I have to have a colostomy?

Usually not. Surgeons can almost always treat colon cancer by removing the cancerous part of the colon and joining the remaining two ends together. Other times, a procedure called a colostomy may be needed. In this surgery, the cancerous part of the bowel is removed, after which the surgeon creates an artificial opening in the abdomen, bypassing the lower colon and rectum for the elimination of body waste. The waste is collected in a special bag attached to the opening.

Usually, a colostomy is only temporary, to give your bowel time to heal. In fact, thanks to new medical and surgical developments in recent years, the need for permanent colostomies has been significantly reduced.

Today, even patients with rectal cancer, whose only choice in the past was usually a permanent colostomy, have other options. Preoperative radiation therapy and innovative surgical techniques can treat cancer in the lower rectum without jeopardizing the natural function of the muscles that control bowel habits, thereby dramatically reducing the likelihood of needing a colostomy.

Will I have to come back after treatment?

Once you have been treated for polyps or, especially, colorectal cancer or its precursors, you must remain vigilant. Your doctor will want to use blood tests, as well as other screening tests described above, to watch for any reoccurrence, suspicious areas or warning signs of any additional cancer.

What are clinical trials?

When laboratory research shows that a new treatment method has promise, patients with cancer have the opportunity to receive the treatment in clinical trials or protocols. By participating in a clinical trial, you may have the first chance to benefit from improved treatment methods and the opportunity to make an important contribution to medical science.

To find out more about current clinical trials that you may be able to participate in, ask your doctor or call either the Kimmel Cancer Center at Jefferson's Research Management Office at **215-955-1661** or **1-800-JEFF-NOW**.

*Jefferson also offers a number of cancer support and education programs as well as a Buddy Program in which survivors of cancer provide support and encouragement to patients who are newly diagnosed and an active cancer advocacy group. You'll find information about these programs online at **www.jeffersonhospital.org** or by calling **1-800-JEFF-NOW**.*

*For an appointment with a Jefferson physician, please call **1-800-JEFF-NOW** (1-800-533-3669) or visit our web site at **www.JeffersonHospital.org**.*

*Speech- or hearing-impaired callers can access JEFF NOW® by calling **1-800-654-5984**.*

Updated February 2009