

COLORECTAL CANCER

The colon is the first four to five feet of large intestine and is connected to the small intestine by the cecum. The rectum is the last four to five inches of large intestine and is connected to the colon by the sigmoid colon. Colorectal cancer is a disease of irregular cells multiplying and growing in the colon or rectum, damaging these organs and tissues around them.

SYMPTOMS TO REPORT

- *Change in bowel habits
- *Blood (either bright red or very dark) in stool
- *Diarrhea, constipation, feeling of fullness in bowel
- *General abdominal discomfort
- *Weight loss with no known reason
- *Stools that are narrower than usual
- *Nausea and vomiting
- *Constant tiredness

These symptoms are most often not cancer. Early cancer usually does not cause pain. Other health problems can cause the same symptoms. Anyone with these symptoms should see a doctor and not wait to feel pain.

INCREASED RISK FACTORS

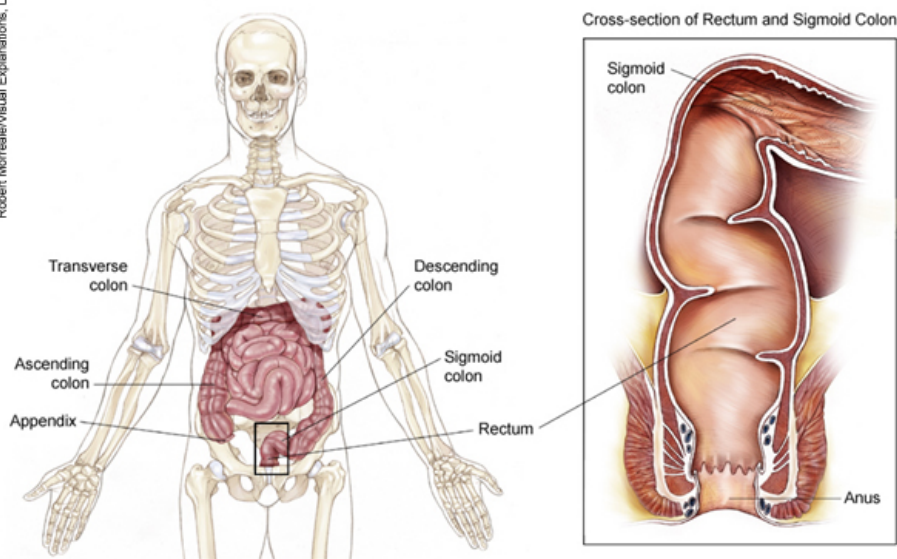
Age: Over 90 percent of people diagnosed are over age 50. The average age of diagnosis is 72 years.

Colorectal polyps: Growths on the inner wall of the colon or rectum. These are usually benign, but can become cancer. Finding and removing polyps may reduce the risk. Factors that increase the risks of developing polyps are high fat (especially animal fat), low fiber, low fruit and vegetable diets; a lack of regular physical activity; a Body Mass Index of 30 or greater; excessive alcohol consumption; and tobacco use.

Family history of colorectal cancer: Parents, siblings and children of people with colorectal cancer have an increased risk of developing disease. Risk increases if the relative was diagnosed at a young age and if many close relatives have colorectal cancer. Genetic tests are sometimes done for members of families with a high risk of cancer.

Personal history: Anyone who has already had colorectal cancer may develop a second colorectal cancer. Women with a history of ovarian, uterine or breast cancer have a higher risk of developing colorectal cancer. People with Ulcerative colitis (Crohn's disease) have higher risk.

Robert Morreale/Visual Explanations, LLC



RISK REDUCTION

- *Diet that includes at least five servings of fruits and vegetables every day
- *Limiting fat intake to 30 percent or less of total daily calories
- *Maintaining ideal weight
- *Exercising regularly
- *Quitting smoking
- *Limiting drinking of alcoholic products

SCREENING TESTS GUIDELINES

People age 50 and older should be screened. People with higher than average risk may be screened before age 50 and more frequently. Screening for cancer before there are symptoms is the best way to find cancer early.

Colonoscopy every 10 years: a long, lighted tube can examine the rectum and entire colon.

Polyps can be removed during the procedure.

Fecal occult blood test (FOBT) detects tiny amounts of blood in stool. It should be performed every year.

Sigmoidoscopy with a short, lighted tube that examines inside the rectum and lower colon should be performed every five years. Polyps can be removed during the procedure; however, this test screens less than half of the colon.

Digital rectal exam (DRE): The health care provider uses a lubricated, gloved finger to feel for abnormalities. It is not the best screening procedure because the inspection area is limited.

Any positive results from the FOBT, DRE or sigmoidoscopy need to be followed up with colonoscopy. There is nearly a 90 percent chance for cure when colorectal cancer is found early.

Diagnosing and staging of colorectal cancer will involve some of these tests and procedures:

Blood tests: Carcinoembryonic antigen (CEA) and other substances may be at higher levels.

Colonoscopy: Examination performed to find abnormal areas if not performed as part of diagnosis.

Endorectal ultrasound: A probe is inserted into the rectum to send out sound waves to nearby tissue. The sound waves create a picture that shows the depth of a rectal tumor or whether other tissues are affected. This is only used for rectal cancer.

Chest x-ray: Used to show whether cancer has spread to the lungs.

CT-scan: Computed tomography is an x-ray machine linked to a computer that takes a series of detailed pictures of areas inside the body. Injected dye enhances the contrast for tumors to show up on the CT scan.

MRI: Magnetic Resonance Imaging uses radio wave pulses to make images of spatial variations in the absorption and emission of energy between healthy tissue and tumors.

PET scan: Positron Emission Tomography is a radiology procedure that makes images using glucose tagged with a small amount of a radioactive substance. Cancerous tissue appears brighter than normal tissue because it metabolizes more glucose and absorbs more of the substance.

Surgery to remove the tumor is sometimes necessary to complete the staging of the disease.

Stage 0: cancer is found only in the innermost lining of the colon or rectum.

Stage I: cancer has grown only into the inner wall, but not the outer wall of the colon or rectum.

Stage II: cancer has spread more deeply into or through the wall of the colon or rectum, possibly into nearby tissue, but not the lymph nodes.

Stage III: cancer has spread to nearby lymph nodes, but not to other parts of the body.

Stage IV: cancer has spread to other parts of the body, such as the liver or lungs.

Recurrent cancer: Cancer that has returned after being treated and after a period of time when the cancer could not be detected. The disease may return in the colon or rectum, or in another part of the body.

TREATMENTS

Surgery to remove the tumor and nearby lymph nodes is the most common initial treatment for colorectal cancer. Surgeons can usually reconnect healthy parts of the colon or rectum after removing a section. It is sometimes necessary to create a new path for waste to leave the body, through a stoma, which is then connected to the upper end of the intestine and the other end is closed. The procedure to create the stoma is a colostomy. A flat bag fits over the stoma to collect waste, and a special adhesive holds it in place. A colostomy is temporary for most people, needed only until the colon or rectum heals from surgery. The parts of the intestine are reconnected after healing is complete and the stoma is closed. Some people, especially those with a tumor in the lower rectum, need a permanent colostomy.

Chemotherapy, or systemic therapy, uses anticancer drugs to kill cancer cells. It may be given alone or combined with surgery, radiation therapy, or both. Neoadjuvant therapy is chemotherapy given before surgery, possibly to shrink a large tumor. Adjuvant therapy is chemotherapy after surgery, used to destroy any remaining cancer cells and prevent the cancer from coming back in the colon or rectum, or elsewhere. Chemotherapy is also used to treat people with advanced disease. Anticancer drugs are usually given through a vein, but some also may be given by mouth. Treatment can occur in an outpatient part of the hospital, at a doctor's office, or at home. A hospital stay is rarely needed.

Radiation Therapy uses high-energy x-rays to kill cancer cells. **External radiation therapy** uses a machine outside of the body to send radiation toward the cancer. **Internal radiation therapy** (brachytherapy) uses a radioactive substance sealed in needles, seeds, wires or catheters that are placed directly into or near the cancer. Treatment involves staying in the hospital, as the implants generally remain in place for several days. They are usually removed before the patient goes home.

Treatment for Colon Cancer

Most patients with colon cancer are treated with surgery. Some have both surgery and chemotherapy. Although radiation therapy is not commonly used to treat colon cancer, sometimes it is used to relieve pain and other symptoms.

Treatment for Rectal Cancer

Surgery is the most common treatment for all stages of rectal cancer. Some patients receive surgery, radiation therapy, and chemotherapy. About 1 out of 8 people with rectal cancer needs a permanent colostomy. Radiation therapy may be used before, during or after surgery. People also may have radiation therapy to relieve pain and other problems caused by the cancer.