Resources

For more information for yourself, your family, and your doctor, we suggest the following resources:

- Web Sites

  Johns Hopkins Hereditary Colorectal Cancer Registry
  www.hopkins-coloncancer.org (Spring, 2000)

  The American Cancer Society
  www3.cancer.org

- Publications

  Cancer Facts and Figures-1999. American Cancer Society, Special Section: Colon and Rectum Cancer. 1999:18-29.

  US Department of Health and Human Services, National Institute of Health, *What You Need To Know About Cancer of the Colon and Rectum*. June 1999:1-17.

  Read TE., and Kodner IJ. Colorectal Cancer: Risk Factors and Recommendations for Early Detection. American Family Physician 1999;59:3083-3092.

- Telephone

  Johns Hopkins Hereditary Colorectal Cancer Registry
  1-888-77-COLON (772-6566)/ 410-955-3875

  Johns Hopkins Cancer Risk Assessment Program
  410-614-6319

  Cancer Information Service
  1-800-4CANCER (422-6237)

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The Johns Hopkins Guide
for
Patients and Families:

Colorectal Cancer

The Johns Hopkins
Hereditary Colorectal Cancer
Registry

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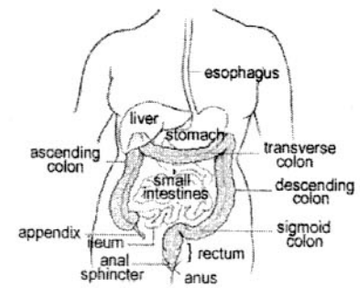
Cancer occurring in the colon or rectum (colorectal cancer) is one of the most common cancers in the United States. Colorectal cancer occurs when the cells that line the colon (large bowel, large intestine) or the rectum (lower portion of the colon) become abnormal and grow out of control. It is the second most common cause of cancer death, most often occurring after the age of 50. The exact causes of colorectal cancer are not known. However, studies have shown several risk factors that increase your risk of developing colorectal cancer.

- What is the Gastrointestinal Tract?

  The gastrointestinal digestive tract is a hollow tube, which begins at the mouth and ends at the anus. It has several parts including the esophagus, stomach, small intestine and colon (large intestine, large bowel). Its total length is about 28 feet. The last 5-6 feet of the intestine is called the colon. The last 5-6 inches of the colon is the rectum.



- What are polyps ?

  Polyps are abnormal, mushroom-like growths that appear on the lining of the colon. When found in the gastrointestinal tract, they occur most commonly inside the colon. Less often they develop in the stomach and small intestine (small bowel). Polyps are *benign tumors* which vary in size from less than one-tenth of an inch to 1-2 inches. Certain types of polyps, particularly adenomas, can become *malignant tumors* (cancer) and should be removed. In some people polyps may be inherited, while in others they are not.

What are the risk factors?

Since the exact causes of colorectal cancer are not known, studies have shown several risk factors that increase a person's risk of developing colorectal cancer:

- Age over 50

  90% of people with colorectal cancer are older than 50.

- Diet

  Diets lacking fruits, vegetables, fiber, whole grains, calcium and folate. Diets high in red meat, fried foods and animal fats.

- Lifestyles

  Physical inactivity, overweight, smoking, alcohol.

- Personal history of:

  Colorectal cancer - even if removed, new cancers can develop.

  Colorectal polyps - particularly adenomas.

  Chronic inflammatory disease - such as ulcerative colitis and Crohn's disease.

  Ovarian or uterine cancer in women.

- Family history of colorectal cancer or adenomatous polyps

  The occurrence of colorectal cancer in more than one family member may be due to chance alone. However, it could mean that the potential for developing colorectal cancer has been passed from one generation of the family to the next generation. This means that relatives of a person with colorectal cancer may be more likely to develop it themselves

See our pamphlet *Dietary and Lifestyle Changes to Reduce Your Colorectal Cancer Risk* for more detailed information.

Colorectal Cancer in Families

Familial Colorectal Cancer

It is estimated that 15-50 percent of colorectal cancers are *familial*, meaning that there is a tendency for colorectal cancer to develop in afamily. *Familial* colorectal cancer can be caused by a single gene, or a combination of genetic and environmental factors. Typically these families have one or two members with a history of colorectal cancer or precancerous polyps.

Hereditary Colorectal Cancer

We say that a family has hereditary colorectal cancer when the exact gene mutation (change) that causes the disease is known, such as:

Hereditary Nonpolyposis Colorectal Cancer (HNPCC) - these families usually have at least three relatives with a history of colorectal cancer, and the cancer often develops at a very early age.

Familial adenomatous polyposis (FAP) (Gardner's Syndrome) - persons with FAP develop multiple pre-cancerous colon polyps at a young age, have a strong family history of colon cancer, and nearly all will develop colon cancer if preventive measures are not taken.

APC I1307K - this specific gene mutation is found in 6% of the Ashkenazi Jewish population and causes persons with the gene mutation to have an increased risk of developing colorectal polyps and cancer.

See our pamphlet *Colorectal Cancer in Families* for more detailed information.

Preventing Colorectal Cancer

Screening exam guidelines

Age 50 and over with no prior history of colorectal cancer - The American Cancer Society recommends the following screening exams for for both men and women:

Fecal occult blood test every year, *plus*
Flexible sigmoidoscopy every 5 years, ***or***

Colonoscopy every 10 years, ***or***

Barium enema every 5-10 years.

Digital rectal exam should be done at each of these tests.

If you have any of the risk factors described in this pamphlet The American Cancer Society recommends screening earlier or more often.

See our pamphlet *Cancer Screening Guidelines for Families with a History of Colorectal Cancer* if you have a family history of colorectal cancer.

Lifestyle

Eat a healthy diet.

Exercise regularly.

Discuss with your doctor whether taking the following medications would be right for you:

NSAIDs - non-steriodal anti-inflamatory drugs to prevent polyp formation

Estrogen Repalcement Therapy - may reduce the risk of colorectal cancer in post-menopausal women

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Recognizing Symptoms

Colon cancer can develop anywhere in your colon or in your rectum. Symptoms are different depending on what segment of the colon the cancer has developed. The American Cancer Society suggests that if you have any of the following symptoms, you need to talk with your doctor, especially if you have a family or personal history of colorectal cancer and you are over the age of 40:

Periods of diarrhea and/or constipation not explained by diet or flu

A feeling that you need to have a bowel movement and are unable to

Rectal bleeding or blood in the stool

Cramping or steady abdominal (stomach area) pain

Decreased appetite

Weakness or fatigue

Jaundice (yellow-green discoloration of the skin and white part of the eyes)

Other diseases can cause some of these symptoms, so remember it is important to talk with your doctor. There is also a possibility that you may not have any symptoms and still have a colon cancer.

Diagnosing Colorectal Cancer

The following tests may be used to make a diagnosis of colorectal cancer:

- Digital Rectal Exam
- Fecal Occult Blood Test
- Sigmoidoscopy
- Colonoscopy
- Barium enema (air contrast)
- CAT Scan
- MRI
- Rectal ultrasound
- CEA assay

If you have been diagnosed with colorectal cancer, your doctor will want to know the extent of your disease. This is called staging. Staging helps the doctor to find out if your cancer has spread to other parts of your body, and also to plan the appropriate treatment.

Treating Colorectal Cancer

What are the treatments?

Treatment options for colorectal cancer vary depending on the size, location, and staging of the tumor at the time of diagnosis. Colorectal cancer is treated by a team of physicians including gastroenterologists, surgeons, medical oncologists, and radiation oncologists. A single treatment or a combination of treatments can be used, as listed below:

Surgery
An operation to remove the part of the colon or rectum that contains the cancer. 85% of the time the surgeon reconnects the healthy sections of the colon and a permanent colostomy (opening in the abdomen) is not required.

Chemotherapy
Drug treatment used to kill cancer cells or to prevent the disease from spreading. The drugs may be taken by mouth or injection.

Radiation Therapy
The use of high-energy rays to stop cancer cells from growing. It may be given before or after surgery.

Biological Therapy
Treatment that helps the body's own immune system destroy cancer cells.

Follow-up Care

After your treatment for colorectal cancer regular follow-up exams and blood tests are recommended. It is important to talk with your doctor and report health concerns that develop especially during treatment and the follow-up years.

See our website
www.hopkins-coloncancer.org
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