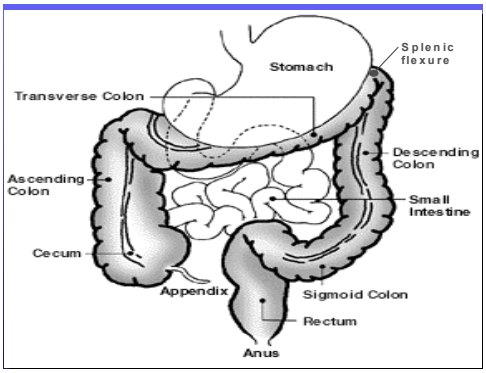
Hereditary Colorectal Cancer

What is Hereditary Colorectal Cancer?

Hereditary colorectal cancer is cancer of the colon or rectum caused by an altered gene that is passed on in a family.

We are rapidly gaining knowledge about who develops hereditary colorectal cancer (CRC). While the majority of CRC's occur in people with no family history of CRC (i.e., their cancer is considered sporadic), about 10% to 30% of cases of CRC occur in people who have a family history of polyps or colorectal cancer. The two most common hereditary forms of CRC are Familial Adenomatous Polyposis (FAP) and Hereditary Non-Polyposis Colorectal Cancer (HNPCC). A third form, caused by a specific genetic mutation called APC I1307K, is commonly found in the Ashkenazi Jewish population. Approximately 3-5% of CRC is associated with HNPCC and 1% is associated with FAP. Less than 0.1% of colorectal cancer cases are related to rarer hereditary syndromes.

In hereditary CRC, mutations (permanent alterations or changes) occur in genes responsible for maintaining the normal growth and development of the colon. A person who inherits an altered gene has a much higher risk for developing CRC cancer than people in the general population. While the average person has about a 5-6% chance of developing CRC during his/her lifetime, individuals with HNPCC have up to an 80% risk. With FAP, this risk is nearly 100%. A person with the APC I1307K mutation has about a 10-20% risk of developing colon cancer.



Look for These Clues

Family history is an important risk factor for hereditary colorectal cancer.

When reviewing your family history, it is important to consider both your father's and your mother's side of the family since an altered gene can be inherited from either parent. Gather information on all types of cancer because other cancers can occur as part of a hereditary colorectal cancer syndrome. Certain "red flags" may suggest a higher risk for hereditary colorectal cancer. These include:

- The diagnosis of colon or rectal cancer before age 50
- The presence of several family members with colorectal cancer
- Having several family members with colon polyps
- The occurrence of ovarian, uterine, stomach, ureter, or small intestine cancers in family members
- Ashkenazi Jewish ancestry (Eastern European/Russian descent) with at least one family member with colorectal cancer
- A relative with a positive genetic test for colorectal cancer

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What Can You Do?

Talk with your health care provider about options for prevention, screening, genetic counseling and genetic testing.

If you have a family history of colorectal cancer, experts may recommend more frequent screening examinations beginning at an earlier age than recommended for the general population. These tests may include

- Colonoscopy
- Sigmoidoscopy
- Upper endoscopy
- Barium enemas and x-rays
- Abdominal ultrasounds
- Fecal occult blood tests

Your physician may recommend additional screening exams to detect cancer in different organs.

Options for preventing colon cancer can include certain medications or surgery. Talk with your health care provider to determine if these are right for you.

Genetic testing and genetic counseling for HNPCC, FAP, and APC I1307K are currently available. Genetic counselors interpret information about genetic diseases or disorders, analyze inheritance patterns and risks of occurrence, identify high-risk family members, and review available options for prevention, screening, genetic testing, and treatment. For more information about hereditary colorectal cancer or for a referral, please call the **Mid-Atlantic Cancer Genetics Network** toll free at 1-877-880-6188 or visit our Web site at http://www.MACGN.org