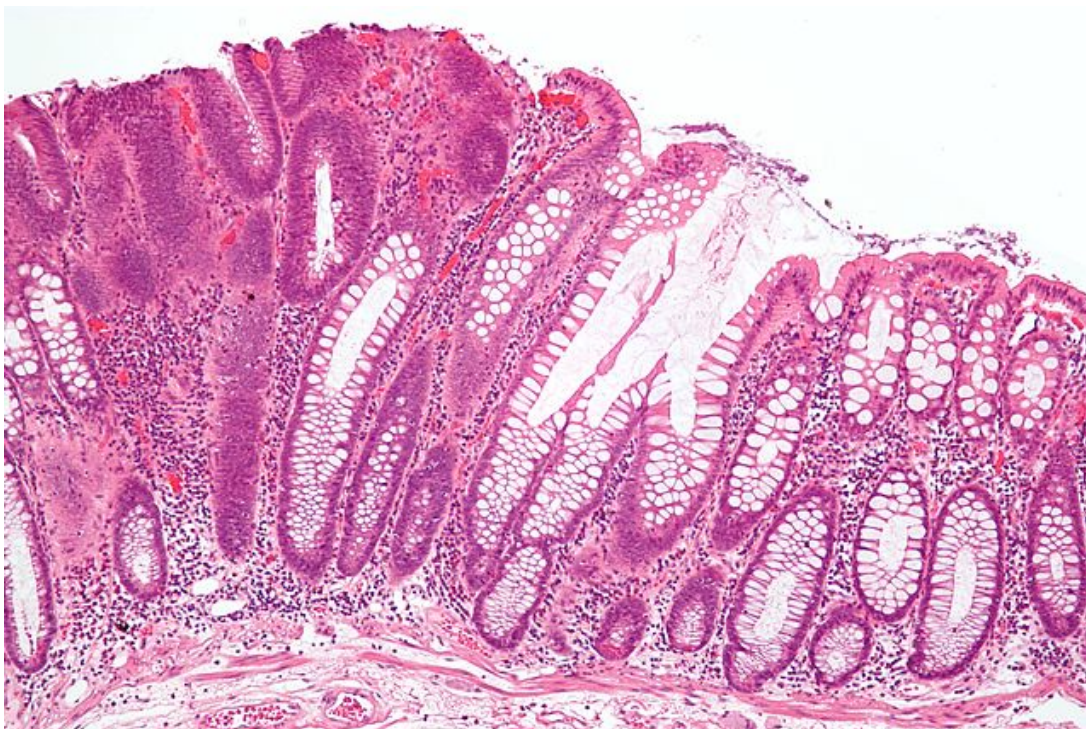


Preventive Medicine: Colorectal Cancer

[See online here](#)

Colorectal cancer (CRC) is the third most regular cancer growth among inhabitants in the United States, and it is the second most frequent cause of death. There have been around 50,000 deaths from CRC in the year 2014 alone. However, the mortality rates have declined since then, owing to the screening test measure for early detection and treatment, and prevention through polypectomy. There are certain risk factors associated with CRC which is modifiable such as smoking, obesity, alcohol, and low-fiber, high-fat diet.



Introduction

Colorectal cancer (CRC) is considered a common and serious lethal disease, especially in first degree relatives. It has a low incidence before age 40 with incidences increasing progressively to about 3.7 per 1000 per year by age 80. Early removal of premalignant adenomas can prevent the development of malignant cancer and CRC related death.

Modern screening tests can meet this goal as they can detect early-stage adenocarcinomas and adenomatous polyps. Adults over 50 years old are more likely to have adenomatous polyps which are related to higher chances of having a colorectal tumor. The survival rates of CRC depending on the following:

- Diagnosis while it is limited to the bowel walls (90 percent)
- Lymph node involvement but no metastasis (68 percent)
- Distant metastasis (ten percent)

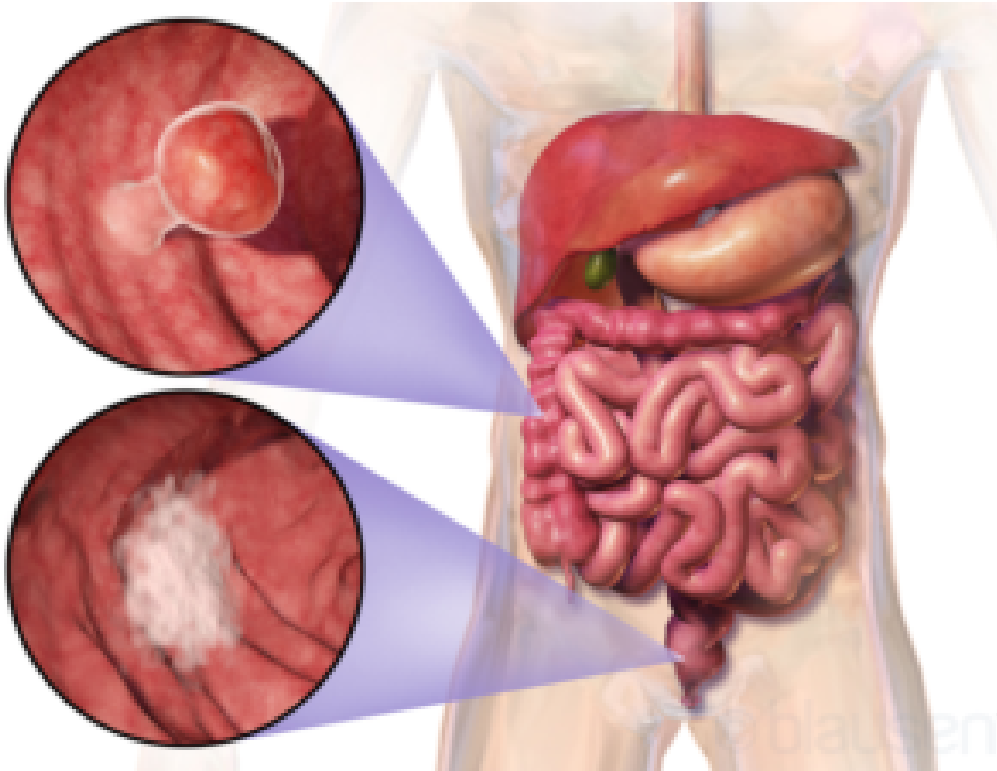


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Epidemiology of CRC

CRC is considered the second most common cancer in women and the third most common cancer in men, accounting for nine percent of cancer deaths overall. About one of every three people who develop this type of cancer die because of its complications. The lifetime incidence increases from five percent in a patient with low risk to 90 percent if occurring after the age 50. Women are at an increased risk of developing CRC if they have a personal history of previous colorectal cancer or adenomatous polyps. A family history of adenomatous polyps or colorectal cancer in one or more first degree relatives, or a history of colorectal cancer in two or more second degree relatives also increases risk.

Women who are at high risk of developing CRC include individuals who have a personal history of inflammatory bowel diseases, such as chronic [ulcerative colitis](#) or [Crohn's disease](#). If they have a personal or family history of familial adenomatous polyposis (FAP) or hereditary non-polyposis colon cancer (HNPCC or Lynch syndrome). Women with HNPCC are also at risk for endometrial, ovarian, and other related cancers.

Lifestyle factors associated with CRC:

- Smoking
- Lack of physical activity and regular exercise
- Alcohol intake
- Red and processed meats
- Obesity

When to screen for CRC

The screening for CRC should start at 50 years old and 45 years old in African Americans. The US Preventive Services Task Force (USPSTF) recommends that screening should

continue until the age of 75. To screen or not to screen becomes an individualized decision after the age of 75. The decision is based on the overall health of the patient prior to screening.

Two types of screening

- Tests for cancer prevention
- Tests for cancer detection

Cancer prevention tests are preferred over cancer detection tests.

Screening Tests

There are three categories of individuals that probably benefit more from screening tests:

- Adults with no past screening history
- Individuals who are capable of receiving cancer treatment if diagnosed with CRC
- Individuals who are free of life-limiting conditions

American Academy of Family Physicians (AAFP) recommendations:

The AAFP suggests screening for colorectal cancerous growth at 50 years of age. The screening should continue up to 75 years of age. The proposed tests for screening purposes are fecal immunochemical tests, flexible sigmoidoscopy, and colonoscopy.

The dangers, advantages, and strengths of the supporting confirmation of various screening techniques differ.

The decision for screening in the age group 76–85 years is an individual one. The general health of the patient and past screening history are considered before settling on a screening choice.

The American Academy of Family Physicians does not recommend screening for CRC in adults after the age of 85.

U.S. Preventive Services Task Force (USPSTF) recommendations:

USPSTF rules for colorectal disease screening are the ones given by the American Academy of Family Physicians. The guidelines also include screening tests for colorectal cancer.

The Stool-based screening tests are performed at various intervals. A guaiac-based fecal occult blood test is used for screening purpose at an interval of one year. The fecal immunochemical test (FIT) is repeated every year. Multitarget stool DNA test with a fecal immunochemical test is recommended every one to three years.

The direct visualization screening tests involve colonoscopy, which is recommended every ten years for screening purposes. Computed tomographic colonography and flexible sigmoidoscopy are repeated every five years. Flexible sigmoidoscopy with the FIT is recommended based on repeating the procedure every ten years for flexible sigmoidoscopy and one year for FIT.

American College of Gastroenterology (ACG) recommendations:

ACG recommendations contrast between the screening tests and the identification tests for CRC. Specific ACG guidelines are:

- Tests used for cancer prevention are preferred over diagnostic tests
- Screening tests should start at age 50 and at age 45 in the case of African Americans. The preferred test is colonoscopy at an interval of every ten years.
- If the patient refuses colonoscopy and other screening tests, it should be suggested that they have a FIT yearly.

According to ACG recommendations, there are two classifications of individuals who should have a colonoscopy starting at age 40 and repeat every five years:

1. People who have at least one first degree relative with a history of advanced adenoma or CRC diagnosis before age 60
2. Individuals who have two first degree relatives diagnosed with advanced adenoma or CRC

Intervals for following colonoscopy results:

- Cases of villous adenoma and high-grade dysplasia should have a follow up every three years.
- Dysplasia in a sessile serrated polyp should follow up every three years.
- Large serrated adenoma should have follow-up colonoscopy every five to ten years.
- Individuals with more than ten adenomas should have a colonoscopy every three years.
- After resection of a large adenoma, follow-up is recommended within less than a year.
- Status post curative resection of large CRC, cases should follow-up three and five years after the resection.

References

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