Overview of Colorectal Cancer

Colorectal cancer is the third most common cancer in the US, and the second leading cause of cancer death. It affects men and women equally, but most often affects African Americans and those aged 50 years or older.\textsuperscript{1,2}

Colorectal cancer is a cancer that starts in the colon or the rectum, which are the last two segments of your large intestine. These cancers can be named colon or rectal cancer, depending on where they start, but are often grouped together because they share many features.

Most often these cancers start as abnormal growths on the inner linings of the colon or rectum called polyps that may later become cancerous if not removed.
Screening

You should see your doctor if you have any of the following symptoms:

- Blood in the stool (bowel movement)
- Stomach pain that doesn’t go away
- Losing weight and don’t know why
- Chronic fatigue

Screening is important because colorectal cancer doesn’t always cause symptoms, especially at first. Finding cancer early, when it’s small and hasn’t spread, allows for more treatment options.

An estimated 1 in 3 adults between 50 and 75 years old (23 million) are not getting screened as recommended. The American Cancer Society recommends that people at an average risk (no specific risk factors such as family history) of colorectal cancer should start regular screenings at age 45. Screening could be done by a stool-based test or by a visual exam of the colon. People at a high risk (has specific risk factors) should get screened before age 45 and more often than those at an average risk. See the following page for risk factors.

People who are in good health and have a life expectancy >10 years should continue screening through the age of 75. Patients from the ages of 76 to 85 should be screened based on personal preference, overall health, and life expectancy. No screening is recommended in people over 85.
**Risk Factors**

- Risk increases with age. More than 90% of cases occur in people who are 50 years old or older\(^5,6\).
- A family history (parent, sibling, or child) of colorectal cancer.
- A personal history of inflammatory bowel disease such as ulcerative colitis or Crohn’s disease.
- A personal history of getting radiation to the abdomen (belly) or pelvic area to treat a prior cancer.
- Type II diabetes.

There is strong evidence that many **lifestyle-related factors** have also been linked to colorectal cancer risk.
- Being overweight or obese.
- Physical inactivity.
- Smoking.
- Heavy alcohol use.
- Diet high in red meats.
- Diet high in processed meats.

The lifetime risk of developing colorectal cancer is approximately 1 in 22 (4.49%) for men and 1 in 24 (4.15%) for women.\(^7\)
Prevention

Diet
Reduce or eliminate red meat (beef, lamb, and pork) and processed meat (bacon, ham, hot dogs, and some deli meats such as turkey and bologna). Eating more than 18 ounces of red meat per week, or regularly eating any amount of processed meat, increases the risk of colorectal cancer.

Strong evidence exists that consuming wholegrains, foods containing dietary fiber, dairy products, and calcium supplements decrease the risk of colorectal cancer.

Some evidence suggests fish, multivitamin supplements, vitamin D, and food containing vitamin C may also decrease risk, but evidence is limited.

Physical activity
Daily moderate physical activity decreases risk. Individuals with a higher activity level throughout life have up to a 50% lower risk than those that are inactive. Get at least 150 minutes of moderate, or 75 minutes of vigorous, physical activity a week.

Stop smoking
Cigarette smoking can increase the risk of colorectal cancer by about 18%. Smoking two packs a day (40 cigarettes) increases that risk to about 40% and doubles the risk of colorectal cancer death.

Limit alcohol
Consuming 2 or more alcoholic drinks per day increases risk by 23%.
Treatment Strategies

Colorectal cancer is highly treatable if discovered early. Even if it spreads into nearby lymph nodes, surgical treatment and chemotherapy are highly effective.\textsuperscript{13,14}

Treatment options are usually based on the stage (extent) of cancer, but other factors such as patient health may also play a role.

- **Stage 0** - since the cancer has not grown beyond the inner lining of the colon or rectum, surgery to take out the cancer is the only necessary treatment.
- **Stage 1** - the cancer is still within the colon/rectum, but has grown deeper into the layers of the wall. Surgery is usually the only necessary treatment option.
- **Stage 2** - many cancers at this stage have spread to nearby tissues, but not to the lymph nodes. Most people with rectal cancer will be treated with surgery, chemotherapy, and radiation therapy. With colon cancer, surgery may be all that is needed, but chemotherapy after surgery is sometimes recommended if the cancer has a higher risk of coming back.  
  - For chemotherapy, the **FOLFOX** (5-FU, leucovorin, and oxaliplatin) or **CapeOx** (capecitabine and oxaliplatin) regimens are used most often.
  - Chemotherapy given with radiation is usually 5-FU or capecitabine
- **Stage 3** - cancer at this stage has spread to nearby lymph nodes, but not to other parts of the body. People with rectal cancer will be treated with surgery, chemotherapy, and radiation therapy. Surgery plus chemotherapy is usually the gold standard for colon cancer.
  - **FOLFOX** or **CapeOx** are used most often
- **Stage 4** - cancer at this stage has spread to distant organs and tissues, most often the liver. Surgery is usually unlikely to cure the cancer at this stage, but may increase life expectancy if it has only spread to a few small areas. Chemotherapy, with or without surgery, is the gold standard of treatment for both colon and rectal cancer, plus radiation therapy in people with rectal cancer. Targeted therapies are also an option.
  - **FOLFOX**, **CapeOx**, and many more.
  - Targeted therapies may include a drug that targets VEGF, (bevacizumab [Avastin], ziv-aflibercept [Zaltrap], or ramucirumab [Cyramza]), or a drug that targets EGFR (cetuximab [Erbitux] or panitumumab [Vectibix]).

For advanced colon cancers, or in patients too sick to have surgery, radiation therapy is an option to help prevent or relieve symptoms such as pain, but is unlikely to cure the cancer.

Treatment options may vary based on different factors. It is important to discuss all treatment options, including side effects and goals, with your doctor to make the best decision for you.
References


The Last Dose

“I look at my cancer journey as a gift: it made me slow down and realize the important things in life and taught me to not sweat the small stuff.”

~Olivia Newton-John [Recording Artist and Actor, 1948 -]