What is colorectal cancer?
The colon (or large intestine) is approximately 6 feet long, with the rectum being the last 8 to 10 inches. Picture the colon as framing the lower abdominal cavity. Over a period of years, colorectal cancer can develop from benign growths, called polyps, which protrude from the surface into the colon or rectum.

Second leading cause of cancer death
Colorectal cancer is the second leading cause of cancer deaths in North Dakota. The North Dakota Cancer Coalition estimates that about 400 new cases of colorectal cancer are diagnosed each year.

Who gets colorectal cancer?
Colorectal cancer affects men and women equally. Although colorectal cancer can occur at any age, the risk increases with age. Ninety-three percent of colorectal cancer cases are found in people over age 50. Most individuals (75 percent) who develop colorectal cancer have no family history and are considered at "average risk."

Can colorectal cancer be prevented?
Healthful lifestyle behaviors assist with the prevention of colorectal cancer and 13 other types of cancer. The same formula for healthful living also helps reduce risk of heart disease and diabetes.

- **Stop smoking**
  Smoking is strongly associated with colorectal, as well as lung cancer and other types of cancers. If you smoke, the best thing you can do for your health is to stop. Tobacco use is the single largest preventable cause of disease and premature death in the United States.

- **Maintain a healthy eating pattern**
  Colorectal cancer is linked to dietary patterns. The chance of developing colorectal cancer increases when
individuals move to the United States and adopt a "Western-style" diet and lifestyle.

The "New American Plate," which the American Institute for Cancer Research developed, provides a visual representation of a healthful meal pattern to reduce cancer risk. The Dietary Guidelines for Americans, which the U.S. Department of Agriculture developed, make similar suggestions for a healthy dietary pattern to reduce risk of chronic disease, including cancer.

![The New American Plate](image)

This eating pattern includes a wide variety of foods and food groups.

- Emphasize plant sources, including fruits and vegetables of a variety of colors, whole grains, beans, seeds and nuts.
- Use moderate portions of lean protein (limit high-fat processed meat).
- Include food sources of nutrients associated with reduced risk:
  - Calcium and vitamin D (fluid milk)
  - Folate (fortified grains, beans, oranges, green leafy vegetables)
  - Selenium (protein sources but varies with soil content)

**Increase physical activity**

Health experts recommend physical activity for 30 minutes five times per week. The best reduction in risk for colorectal cancer has been associated with moderate to vigorous physical activity for at least 45 minutes on five or more days of the week.

**Limit alcohol**

Limit alcohol to no more than two drinks per day for men and one drink per day for women. Colorectal cancer risk increases greatly when alcohol intake exceeds two drinks per day.

**Can screening save lives?**

Polyps begin as small growths in the rectum or colon, and grow larger over time. Bleeding may occur as polyps increase in size. The blood may not be seen in the stool but can be detected chemically with a Fecal Occult Blood Test (FOBT). A positive test for blood must be followed with a colonoscopy procedure to look for polyps or colorectal cancer. Using an endoscope with a lighted camera, a physician can locate and remove polyps with a wire loop during the colonoscopy procedure. The polyp is collected and studied to determine if either precancerous cells or cancer is present. Early removal of polyps prevents the development of cancer.

**North Dakota Adults - Lifestyle Statistics**

- About 65 percent either are obese (23 percent) or overweight (38.2 percent)
- About 78 percent consume fewer than five servings of fruits and vegetables daily
- 47 percent of adults in North Dakota are not engaged in sufficient moderate or vigorous physical activity
- About 21 percent smoke
- About 5 percent are heavy drinkers (defined as men having more than two drinks per day and women more than one drink per day)
What are the symptoms?
Early colorectal cancer has no symptoms. For early detection, screening is necessary to detect polyps (either benign or cancerous) for easy removal. Removal of a cancerous polyp before cancer cells spread outside the polyp can allow the patient to be easily and entirely cured. Detection and treatment of colorectal cancer in the early stages gives the patient a 92 percent survival rate.

Symptoms will occur as the cancer grows in size. About two-thirds of all colorectal cancers are found only after symptoms develop. Prompt referral to a physician is necessary with the following symptoms:
• Visible blood in the stool (either bright red or very dark)
• Changes in bowel habits such as:
  - Narrower diameter stools
  - Incomplete emptying
  - Diarrhea or constipation
• Abdominal discomfort:
  - Gas, bloating, fullness
  - Cramps
• Weight loss for no known reason
Colorectal cancer is very treatable when detected early. When detected late, it often is a very serious and fatal disease. If undetected, colorectal cancer cells may spread to the liver and other organs. Once symptoms develop, the five-year survival rate may be as low as 8 percent.

Who should be screened?
The American Cancer Society recommends screening begin at age 50. People need to be screened until the end of life.

Health experts recommend high-risk individuals receive screening before age 50 and at more frequent intervals. High risk is defined as:
• A personal or family history of colon cancer
• Inflammatory bowel disease (ulcerative colitis or Crohn’s disease)

North Dakota Age 50+
Screening Statistics
• About 21 percent report use of FOBT in past two years
• About 51 percent report ever having a flexible sigmoidoscopy

Recommended screening procedures
The American Cancer Society suggests the following procedures may be used alone or in combination to test for polyps or colorectal cancer. Routine screenings are necessary at the designated time intervals for each of the screening tests. Talk to a physician to determine the most appropriate procedure for you.

- **Fecal occult blood test (FOBT)** - Yearly. The FOBT is a simple, inexpensive, at-home test kit that uses a chemical method to detect blood in the stool. Individuals place a smear from multiple stool samples taken on three separate days on test cards. Cards are returned to their health-care provider. Blood in the stool can be a sign of polyps or cancer. Consistent yearly tests could prevent one-third of all colorectal cancer deaths when followed with an appropriate diagnostic workup if blood is detected.

- **Flexible sigmoidoscopy** - Every five years. A flexible sigmoidoscopy procedure uses a lighted instrument called an endoscope to look inside the rectum and lower third of the colon for polyps and colorectal cancers. The flexible sigmoidoscopy may be used every five years in combination with the FOBT on a yearly basis.

- **Double contrast barium enema** - Every five years. This procedure involves the use of an enema containing barium. When X-rayed, the barium allows the physician to view the outline of the colon and to detect any polyps or cancers.

- **Colonoscopy** - Every 10 years. A colonoscopy is a procedure that uses a lighted instrument (endoscope) to view the entire length of the colon. A colonoscopy enables the physician to remove
a polyp or get a specimen from any area that looks unusual. A colonoscopy is the diagnostic procedure physicians recommend when other procedures or symptoms suggest either polyps or cancer.

Follow-up Diagnostic Procedures
A physician may recommend follow-up diagnostic procedures based on findings from an initial screening. Individuals who have had polyps removed may need to be screened at more frequent intervals. Symptoms indicating possible colorectal cancer should be reported to your physician as soon as they appear.

Screening Costs
Check with individual health insurance companies to determine coverage for colorectal cancer screening tests. Medicare pays for any colorectal screening option for people of average risk. Remember, screening saves lives and you can’t put a price on your life!

Arrange for Screening
Embarrassment is a major reason why people don’t get screened for colorectal cancer. However, more than 90 percent of the deaths from colorectal cancer can be prevented. So don’t be embarrassed by this topic. Take an active role in your health care. Adopt healthy lifestyle habits. Schedule an appointment with a physician to discuss appropriate screening procedures for prevention and early detection of colorectal cancer.

Colon Cancer Web Sites

www.cancer.org
American Cancer Society - health information; statistics; food and fitness publications; patients; survivors; family and friends

www.aicr.org
American Institute for Cancer Research - fosters research on diet and cancer prevention; The New American Plate and nutrition publications; cookbook, weekly health e-recipes

http://preventcancer.org/colorectal/
Cancer Research and Prevention Foundation - sponsors National Colorectal Cancer Awareness Month (March); screening legislation; clinical trials; screening; treatment; genetics

www.cdc.gov/cancer/colorectal/
Centers for Disease Control and Prevention - colorectal cancer statistics; publications including Screen for Life campaign (fact sheets, brochures, posters, etc.)

www.cancer.gov
The National Cancer Institute (National Institutes of Health) - Clinical trials; statistics; research; coping with cancer

For more information on this and other topics, see www.ag.ndsu.edu