



Reducing Your Risk of

# Colorectal Cancer

## **“What is colorectal cancer?”**

Colorectal cancer is a malignant tumor that develops in the cells lining the colon (intestine). The disease takes many years to develop. It begins when cells start to multiply out of control. The extra cells form a tumor, which can be either benign (non-cancerous) or malignant (cancerous). Colorectal cancer can develop from certain benign growths that protrude from the mucous membrane of the intestine, called polyps.

## **“How common is colorectal cancer?”**

Colorectal cancer is the third most common cancer among American adults. Approximately 147,000 new cases of colorectal cancer are expected to be diagnosed this year, and about 57,000 people may lose their lives as a result of this disease.

## **“Is colorectal cancer inherited?”**

If you have one first-degree relative (such as a parent or sibling) who has colon cancer, the lifetime risk increases from 2 percent to 6 percent, and 10 percent if that relative is under age 45 when diagnosed. A family history of the disease that includes two or more first-degree relatives may increase the risk to 17 percent, according to the National Cancer Institute. Approximately 75 percent of colorectal cancer patients have no family history of the disease.

## “How can I reduce my risk of colorectal cancer?”

Get regular screenings by a doctor, exercise daily and eat a healthy diet. Studies indicate that eating a mostly plant-based diet that is high in dietary fiber is effective in preventing colorectal cancer. Maintaining a healthy body weight, exercising regularly and avoiding tobacco also help reduce risk. Consuming less alcohol, red meat, processed meat and fat also helps lower colorectal cancer risk, according to a growing number of studies. These recommendations come from the landmark research report, *Food, Nutrition and the Prevention of Cancer: a global perspective*, published by the American Institute for Cancer Research and the World Cancer Research Fund International.

## “Does early detection make a difference?”

Yes. For patients whose cancers are found early and treated before spreading, the chance of surviving 5 years after diagnosis is 90 percent. But only 38 percent of colorectal cancers are diagnosed at an early stage. Survival rates drop dramatically after cancer has spread to other parts of the body. Early detection is very important.

## Diet and Colorectal Cancer – What's the Link?

Researchers say diet and physical activity are the most important environmental influences on colorectal cancer. A mostly plant-based diet of vegetables, fruits, whole grains and beans seems to decrease colorectal cancer risk. On the other hand, a diet high in red meat, processed meat and fat increases the risk.

Vegetables, fruits, whole grains and beans have plenty of cancer-fighting phytochemicals, vitamins and dietary fiber. Phytochemicals, such as phenolic antioxidants, are natural elements of plant-based foods and have been shown to protect the body's cells against DNA damage. Thousands of different phytochemicals are being discovered in plant-based foods. Researchers believe they work in combination with vitamins and minerals to help lower cancer risk. Other studies have suggested that digesting fat and metabolizing cholesterol requires our bodies to produce large amounts of bile acids, which may promote cancer. Dietary fiber's bulk may reduce the concentration of bile acids and other possible carcinogens in the intestinal tract. Fiber may also reduce the colon's exposure to cancer-causing substances by moving wastes out quickly.

Current research studies are looking at how calcium with vitamin D might reduce risk. Others are focusing on aspirin, phenolic antioxidants, the B vitamin folate, vitamins C and E and the mineral selenium as having a potential role in preventing colon cancer.



## Diet and Lifestyle...Important Risk Factors You Can Control

By making even small changes in your diet, you can improve your general health and reduce your risk of colorectal cancer.

1. *Eat mostly fiber-rich vegetables, fruits, whole grains and beans.* Vegetables and fruits have plenty of cancer-fighting nutrients, protective compounds and dietary fiber. Dietitians recommend eating 20-30 grams of fiber daily. Whole grains and beans are particularly rich in fiber: one slice of whole wheat bread has 2 grams of fiber, and  $\frac{1}{2}$  cup of beans contains 7 grams. Choose whole grain bread and cereal, brown rice instead of white rice and products made with refined white flour. Make sure the ingredients list says "whole wheat," and not just wheat, first. Add some servings of vegetables to your meals (frozen mixed vegetables contain 4 grams of fiber per half cup; a medium baked potato with skin provides 5 grams of fiber). Eat fruit for dessert to boost your dietary fiber intake.
2. *Eat less fat.* Red meats, processed meats, whole milk, butter, oil, margarine, fried foods, most chips and processed foods are high in fat and, often, saturated fat. Try to eat smaller amounts of these foods, or choose to eat them less often. Make cooked meat portions less than 3 ounces (the size of a deck of cards) per day.
3. *Stay active and maintain a healthy weight.* Daily physical activity and a healthy diet should help you achieve and maintain a healthy weight. If you are not currently active, check with your doctor before starting an exercise program.
4. *Drink alcohol in moderation, if at all.* Moderate alcohol intake is one drink a day for women and two drinks a day for men.
5. Always remember, don't use tobacco in any form.



## Early Detection Saves Lives!

Colorectal cancer develops slowly. Often symptoms won't appear until the cancer has spread. Successful treatment depends on early detection. Follow these guidelines:

### 1) Rate your risk.

Anyone can get colorectal cancer. But higher risk factors include:

- Diet low in vegetables and fiber
- Lack of physical activity
- Diet high in red meat, alcohol, processed meat, total fat, saturated fat or sugar
- Smoking
- Over 50 years of age
- Above average weight or obesity
- Family history of colorectal cancer, polyps or inflammatory bowel disease
- Living in an industrialized or urban environment

If you are concerned that you are at risk, speak to your doctor. You may need screening tests more often or at an earlier age.

### 2) Have regular exams by a physician.

Beginning at age 50, you should have screening tests performed, even if you have no symptoms of colorectal cancer. The exams include:

Fecal occult blood test (FOBT) every year

Plus - Sigmoidoscopy every 5 years

Or - Colonoscopy every 10 years

Or - Double contrast barium enema (DCBE) every 5-10 years.

A digital rectal exam (DRE) should be done at the same time as sigmoidoscopy, colonoscopy or double contrast barium enema.

## Be Alert to Possible Symptoms

If you have any of the following symptoms, you should check with your doctor:

- A change in bowel habits, like prolonged diarrhea or constipation
- Feeling that the bowel doesn't empty completely
- Blood in the stool (either bright red or very dark) or rectal bleeding
- Stools smaller in width than usual
- General abdominal discomfort (like frequent gas pains, bloating, fullness or cramps)
- Weight loss for no known reason
- Abnormal fatigue
- Vomiting

## Frequently Asked Questions

*"How does exercise help prevent colon cancer?"*

Scientific evidence links exercise with a 40-50 percent reduction in colon cancer risk. Exercise may protect the colon because it speeds the movement of food through the intestine and decreases bile acid secretion. AICR recommends a total of one hour a day of moderate activity that raises the heart rate and causes a slight perspiration, like a brisk walk. Before you start or increase exercise, check with your doctor. Start by setting a reasonable short-term goal, then gradually increase your physical activity time and intensity.

*"My father was diagnosed with polyps in his colon. Are they related to cancer?"*

Polyps are benign growths on the linings of the colon or rectum. They are often found in people over age 50. Research shows that most colorectal cancers arise from certain types of polyps. Removing these precancerous growths is one way to prevent cancer. Because new polyps develop in nearly half the people who have them removed, these people must be monitored regularly.

## AICR Diet and Health Guidelines for Cancer Prevention

1. Choose a diet rich in a variety of plant-based foods.
2. Eat plenty of vegetables and fruits.
3. Maintain a healthy weight and be physically active.
4. Drink alcohol only in moderation, if at all.
5. Select foods low in fat and salt.
6. Prepare and store food safely.

*And always remember...*

Do not use tobacco in any form.

### For More Information

The American Institute for Cancer Research supports research and provides education in the area of diet, nutrition and cancer. It is only through your donations, or by leaving a bequest or legacy, that AICR is able to carry out its vital work. To become an active supporter of our work or to order free publications, please call or write:

American Institute  
for Cancer Research  
1759 R Street, NW  
PO Box 97167  
Washington, DC 20090-7167  
1-800-843-8114 or 202-328-7744  
[www.aicr.org](http://www.aicr.org)

The American Institute for Cancer Research is a 501(c)(3) tax-exempt organization and a member of the World Cancer Research Fund International.



The American Academy of Family Physicians Foundation has favorably reviewed this material through 2007. Favorable review means that medical information is accurate, but does not imply endorsement of any conclusions presented.



American  
Institute for  
Cancer  
Research

*Stopping cancer before it starts*

E47-BHC/E61