## Risk factors for colon & rectal cancer

- Age over 50
- Colorectal Polyps
- Family History of Colorectal polyps
- Genetic alterations
- Personal history of cancer
- Ulcerative Colitis, Crohn's Disease, and Inflammatory Bowel Disease
- Diet
- Sedentary lifestyle
- Cigarette Smoking
- Diabetes

## To Read More–

Here are some websites with more information about colon cancer:

www.nih.gov

www.cancer.gov

Also be sure to go to www.yourdiseaserisk.harvard.edu/ and click on "What's your Cancer Risk?" to take a Disease Risk Questionnaire online and find out your risk of colon cancer. *(From the Harvard Center for Cancer Prevention)*

## When should I see a doctor?

If you experience any of these signs and symptoms, consult a doctor:

- Diarrhea or constipation
- Feeling that your bowel does not empty completely
- Finding blood (either bright red or very dark) in your stool
- Stools that are narrower than usual
- Frequent gas pain or cramps, feeling bloated or full
- Unintentional weight loss
- Nausea or Vomiting
- Feeling fatigued all the time.

Symptoms may be caused from other health problems. Some symptoms may be painless at first. Do not wait until symptoms are painful to see a doctor.

## What can I do to lower my risk of developing colon & and rectal cancer?

Prevention Tips:

- Eat whole grains, vegetables, and fruit. Up to 30% of cancers in developed countries may be related to nutrition.
- Limit fat. Limit saturated fat. Diets high in saturated fats and low in fruits and vegetables increase the risk of cancers of the breast, colon, prostate, and esophagus.
- Get your vitamins and minerals. Calcium, magnesium, and vitamins B6 and B9 may reduce your risk of colorectal cancer.
- Non-steroidal anti-flammatory drugs may also reduce the risk of colon cancer.
- Limit alcohol use. More than one drink of alcohol a day for women or two for men may increase your risk of colon cancer.
- Stop tobacco use.
- Maintain a healthy weight and stay active. Staying physically active may cut your risk of cancer in half. Exercise helps stimulate bowel movement and decrease transit time.
- Remember to get screened regularly. The American Cancer Society recommends that regular screenings start at age 50, or younger and more frequent if you have a family history or other risk factors for the disease. Ask your doctor which tests would best suit you. Screening tools include Fecal Occult Blood Test (FOBT), Sigmoidoscopy, Colonoscopy, Double-Contrast Barium Enema, Digital Rectal Exam, Virtual Colonoscopy.

—*from* The Cancer Atlas *by Judith Mackay*

# Upcoming Events

BRIGHAM YOUNG UNIVERSITY WELLNESS PROGRAM

**JULY 11** Well & Wise–How to Cook When the Lights Go Out
**JULY 14** Family Hike Day
**AUGUST 30** 3K Fun Walk– University Conference
**AUGUST 31** Open House–Come see our new office!


To register, or for more information visit: wellness.byu.edu or call 422-5884



JULY 2007

BYU WELLNESS PROGRAM NEWSLETTER

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# Understanding and Preventing Carcinomas of the Colon and Rectum

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The term "cancer" refers to a group of many diseases with a common characteristic—cells grow and spread without restraint throughout the body. Cancer can originate almost anywhere in the body. Carcinomas are the most common types of cancer, arising from the cells that cover internal and external body surfaces. The most common types of carcinomas are of the prostate, breast, lung, and colon. In the United States, these cancers explain 29%, 26%, 15%, and 11% of all cancers, respectively.[1] Other types of cancer include sarcomas (cells found in the supporting tissues of the body; e.g., bones, cartilage, fat, muscle); lymphomas (cancers arising in the lymph nodes and body's immune system); and leukemias (cancers of the immature blood cells that grow in the bone marrow, which accumulate in large numbers in the bloodstream). The combination of these types of cancers is estimated to result in 1,444,920 new cancer cases and 559,650 cancer deaths in the United States in 2007.[1]

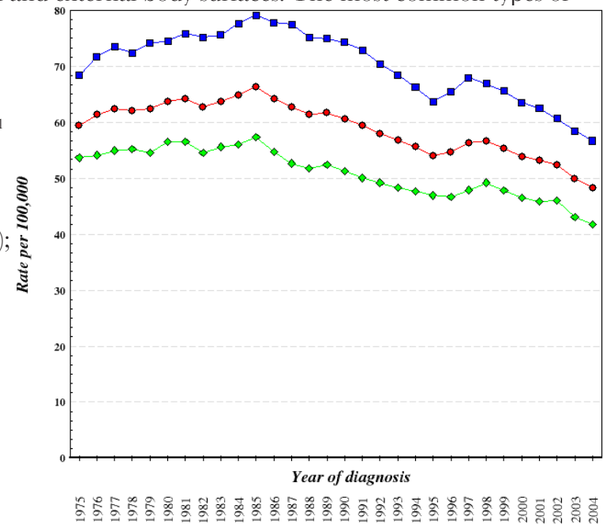


***Figure 1:*** *Incidence rates by sex for carcinoma of the colon and rectum according to calendar year. Rates are age-adjusted to the 2000 US standard population.*[2]

Although less common than prostate, breast, and lung carcinomas, carcinomas of the colon & rectum affect many people each year. The lifetime probability of developing invasive carcinoma of the colon & rectum is 5.79 (1 in 17) for males and 5.37 (1 in 19) for females. In other words, for 17 males born today, one is expected to develop carcinoma of the colon & rectum over their lifetime and of 19 females born today, one is expected to develop carcinoma of the colon & rectum over their lifetime.[1]

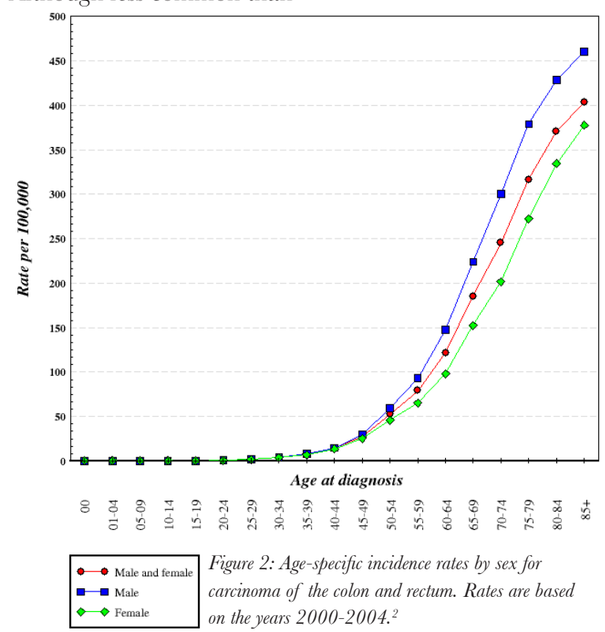


*Figure 2: Age-specific incidence rates by sex for carcinoma of the colon and rectum. Rates are based on the years 2000-2004.*[2]

In the United States, the incidence rates of carcinoma of the colon and rectum increased from 1975 through 1985, and then tended to decrease through

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2004 *(Figure 1)*. Rates are higher for males than females. This is true across the age span *(Figure 2)*. Approximately 90% of cases occur in persons aged 50 years or older, with the risk of this disease increasing sharply in older age. Along with age and sex, diet is the primary risk factor for carcinoma of the colon and rectum.[3] Epidemiologic studies have shown that dietary fat increases the risk of this cancer, whereas consumption of dietary fiber and fruit and vegetables is protective against colon cancer.[4-6] There is also evidence that mutagenic byproducts of high temperature meat cooking are associated with this cancer.[7] On the other hand, physical activity, calcium intake, and non-steroidal anti-inflammatory drugs (e.g., aspirin) reduce the risk of large bowel cancer.[8-10] Having a family history of colorectal cancer, inflammatory bowel disease, and polyps are also associated with increased risk of colorectal cancer.[11,12]

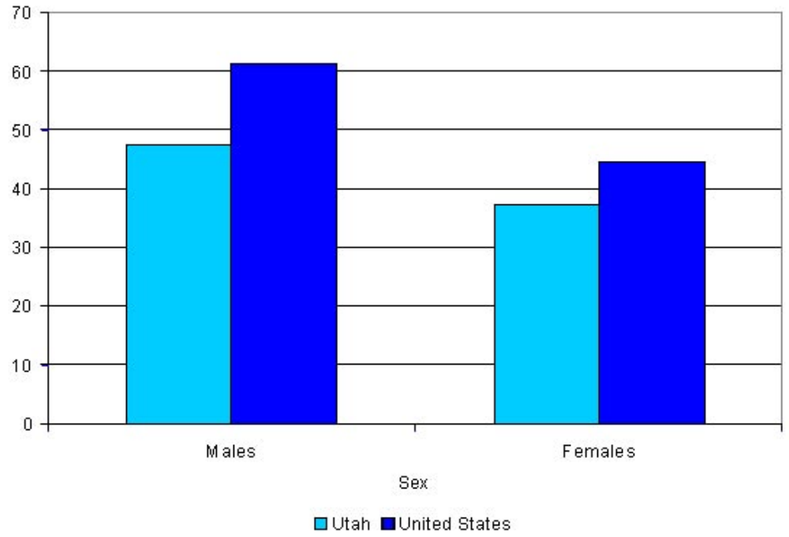


*Figure 3: Incidence rates of carcinoma of the colon & rectum in Utah and the United States during the calendar years 2000-2003.[14]*

Lifestyle factors explain above 90% carcinomas of the colon and rectum. Ways to reduce the risk of developing these cancers include regular physical activity, high fruit and vegetable intake, high-fiber and low-dietary fat, normal body weight, and abstention from alcohol or tobacco.[13] Carcinoma rates of the colon and rectum in Utah are among the lowest in the United States *(Figure 3)*,[14] in part because of comparatively higher physical activity, lower weight, and lower consumption of alcohol and cigarette smoking, as shown in Table 1. On the other hand, a lower percentage of people in Utah consume 3 or more servings of fruit and vegetables per day (55.1 vs. 59.2).

Table 1: Comparison of physical activity, weight, fruit and vegetable consumption, alcohol consumption, and cigarette smoking between adults aged 18 years and older in Utah and the United States

| | Utah | United States |
|---|---|---|
| During the past month, other than a regular job, participated in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise. | 81.3% | 74.5% |
| Fruit & Vegetable Consumption | | |
| < 1 serving | 6.3% | 5.4% |
| 1 to < 3 servings | 38.6 | 35.4 |
| 3 to < 5 servings | 33.0 | 35.0 |
| 5 or more servings | 22.1 | 24.2 |
| Not overweight or obese | 43.8 | 38.7 |
| Overweight (25 ≤ BMI < 30) | 35.0 | 36.8 |
| Obese (BMI ≥ 30) | 21.2 | 24.5 |
| Alcohol | 27.3 | 53.4 |
| Tobacco smoking | 11.5 | 20.4 |

*Source: Behavior Risk Factor Surveillance System (BRFSS), 2005.*

Relative survival for colorectal cancer patients is similar between males and females. For every 100 people diagnosed with the disease today, on average about 81% will be alive in one year, 70 will be alive after three years, 60 will be alive after seven years, and about 58 will be alive after ten years.[2] However, survival rates

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## Did you know?

The total cost of cancer in the United States was $209.9 billion in 2005.

Colorectal cancer is the second leading cause of cancer death among American men and women combined. The leading cause is lung cancer.

Colorectal cancer is one of the *most preventable* cancers.

More than one-third of colorectal cancer death could be avoided if people over 50 had regular screening tests.



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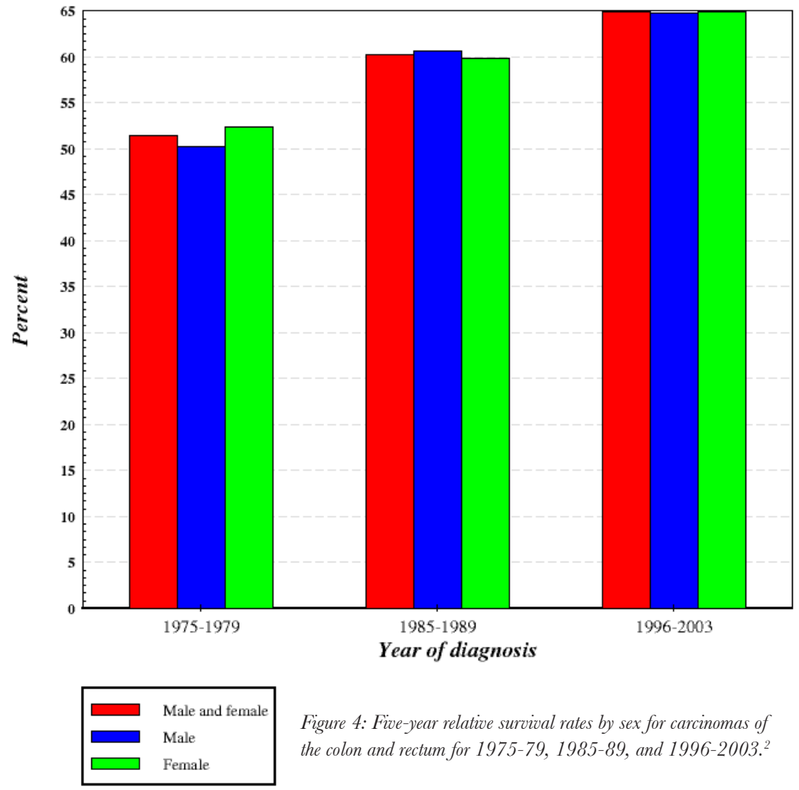


*Figure 4: Five-year relative survival rates by sex for carcinomas of the colon and rectum for 1975-79, 1985-89, and 1996-2003.[2]*

are continuing to improve *(Figure 4)*, primarily because of earlier diagnosis as well as to improvements in diagnostic tests and techniques, including stool guaiac testing, hemoccult testing, double-contrast barium enema, flexible colonoscopy and sigmoidoscopy. During 2001-2005, 42.9% of individuals in Utah aged 50 years or older reported having a sigmoidoscopy or colonoscopy within the past five years.[16] This percentage is similar to that in the United States. In 2001 the rates were below 40%, but steadily increased to about 50% in 2005.[16] Safer anesthesia, refined surgical techniques, and greater use of radiation therapy may also explain some of the improvement in survival.

For more information about colorectal cancer, visit www.cdc.gov/cancer/colorectal/. For specific information on colorectal cancer in Utah, call UCAN's health resource line at 1-888-222-2542 or visit www.ucan.cc.

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