



IN-DEPTH //
COLON HEALTH



A Preventable **DISEASE**

➔ Colorectal cancer—the second-leading cause of cancer-related deaths in the United States—can strike anyone. But it doesn't have to strike you.

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Steps you can take today to reduce your risk

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Recommended tests and screening schedules

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How to treat colorectal cancer at each stage

Did You Know?//

Source: American Cancer Society

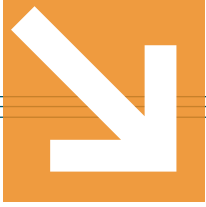
Colon and rectal cancers begin in the digestive system, also called the gastrointestinal system.

Last year there were an estimated 102,900 new cases of colon cancer in the United States.

There were an estimated 39,670 new cases of rectal cancer in the United States in 2010.

Last year there were approximately 51,370 deaths from colorectal cancer in the United States.

To read this special section online, go to deltaskymag.com.



Take Action

Colorectal cancer is one of the most common cancers for men and women, but it's often preventable. Learn how to reduce your risk.

By Andrea Kahn

Former Major League Baseball player Darryl Strawberry is battling colon cancer. Supreme Court Justice Ruth Bader Ginsburg survived it. Actress Audrey Hepburn and *Peanuts* creator Charles Schulz did not. Diagnosed in more than 140,000 Americans each year, colorectal cancer kills about 50,000. What distinguishes this cancer from many others is that it is the only one, besides cervical cancer, that can often be prevented. Here are some steps that can stop you from becoming a statistic.



Get Screened

The idea of a colonoscopy may make you cringe, but getting one can save your life. Colorectal cancer almost always starts with a small, benign growth called a polyp. If the polyp is found early, doctors can remove it and stop colorectal cancer before it starts. If detected early, there is a 90 percent survival

rate. Just as cervical cancer has plummeted in the past generation thanks to the Pap smear, routine screening could have the same effect on colorectal cancer.


Unfortunately, 40 percent of Americans who should be screened—everyone 50 and older—have not been. “It’s a glaring problem,” says Durado Brooks, M.D., the American Cancer Society’s director of colorectal cancer. “Many

people believe that if a doctor has not told them to be screened, they must not be at risk. This, unfortunately, is not true.”

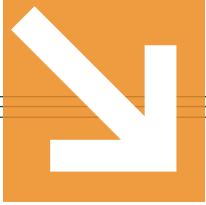
A recent report by the National Cancer Institute found that only 20 percent of doctors in the United States follow all the recommended colorectal cancer screening guidelines. This means you need to educate yourself. Both men and women should begin testing at 50. Those with increased risk factors—such as a family history of colorectal cancer or medical conditions such as inflammatory bowel disease—may need to be screened earlier and more frequently. Talk to your doctor to determine the best course of action for you.

Consider Genetic Testing

Generally recommended only for those who have a medical history that points to familial or hereditary colorectal cancer, a genetic test can indicate which family members have inherited a mutated gene—and thus an increased risk for the disease. A simple blood test can check for some inherited

 If you have a family history of colorectal cancer, consider genetic testing. A blood test can check for some inherited colon cancer syndromes.

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A high-fiber diet featuring a variety of whole grains, fruits and vegetables can reduce your risk of colorectal cancer.

colon cancer syndromes. Once blood is drawn, the analysis can take weeks or even months. To determine whether a genetic test makes sense for you, discuss your complete family medical history with your doctor and a genetic counselor.

Eat Right

We all know how important it is to eat right. But studies have associated colorectal cancer, in particular, with diet.

“The cells lining the intestinal tract come into direct contact with what we choose to eat,” says Joel Fuhrman, M.D., a family physician, nutritional researcher and author of the best-selling book *Eat to Live*. “The substances contained in our food can have profound effects on these cells

and tissues.”

Red meat, refined grains, starches and processed foods—hot dogs, deli meat—have been linked directly to colorectal cancer, while a high-fiber diet featuring a variety of whole grains, fruits and vegetables has been shown to reduce the risk of developing the disease. And don’t assume you can get your nutrients from a pill. Fruits, vegetables and other whole foods contain thousands of micronutrients and phytochemicals—chemical compounds found in plants—that work together to prevent cancer, and these just can’t be bottled.

GET TESTED

Here are the tests recommended by the American Cancer Society, beginning at age 50:

Colonoscopy // Examining the length of the large intestine (colon), the test should be performed every 10 years. Usually carried out under anesthesia, it generally causes little discomfort.

Flexible sigmoidoscopy // Examining only the lower part of the colon, this test should be performed every five years.

Barium enema // An X-ray exam of the large intestine, recommended every five years.

Virtual colonoscopy // An imaging system that uses X-rays and computers to produce two- and three-dimensional images of the large intestine. The test is recommended every five years.

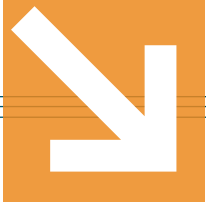
Other // Tests that find cancer, such as stool blood tests or the newer DNA tests, are less invasive and easier to have done. However, they are less likely to detect polyps and are therefore considered less effective in preventing colorectal cancer. //

Get Moving

Exercise has a wealth of health benefits, so it’s no surprise that couch potatoes have a higher risk of developing colorectal cancer. To lower your risk, shoot for at least 30 minutes of exercise three days per week.

“Any physical activity is potentially helpful,” says Paul Limburg, M.D., a gastroenterologist and professor of medicine at the Mayo Clinic in Minnesota. “It doesn’t have to be strenuous or vigorous.”

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Lose the Love Handles

Excess body fat can raise your chances of developing colorectal cancer as much as 50 percent, Limburg says. The increase is progressive—the greater your body size, the greater your odds of getting the disease. While this is true for both men and women, the link seems to be stronger in men, according to researchers at the Mayo Clinic.

Red meat, refined grains, starches and processed foods have been linked directly to colorectal cancer.



Long-term cigarette smoking can increase your risk of dying of colorectal cancer by more than 40 percent.

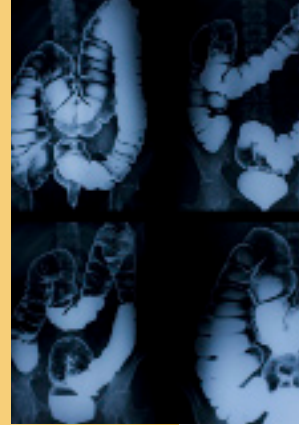
Kick the Habit

We all know that smoking is bad for our health, but long-term cigarette smoking can increase your risk of dying of colorectal cancer by more than 40 percent, a recent study by the American Cancer Society found. Twelve percent of deaths from the disease are linked to tobacco use. The reasons? First, inhaled or swallowed tobacco smoke transports carcinogens to the colon. Second, tobacco use is associated with the growth of precancerous colon polyps. //

TO LEARN MORE

The Susan Cohan Kaldas Colon Cancer Foundation // coloncancerfoundation.org

Thanks to The Susan Cohan Kaldas Colon Cancer Foundation, April is designated as National Colon Cancer Screening Month. Check out the foundation's website for information on screening, treatment and steps you can take to prevent the disease.



American Cancer Society // cancer.org

The American Cancer Society offers helpful information about colon and rectal cancers. The site's overview of the disease includes recent statistics and information about detection, diagnosis and staging. Learn about the top five colon cancer myths, and check out the site's colorectal cancer treatment decision tool.

EXPERT INSIGHTS

Charles Komen Brown, M.D.
Medical Director of Surgical Oncology & Surgical Oncologist Cancer Treatment Centers of America // cancercenter.com



Q: What are some of the latest colorectal cancer treatments?

A: For patients with colorectal cancer that has spread to the liver, TheraSphere, an internal radiation therapy, targets liver tumors with tiny radioactive glass beads called microspheres. Hyperthermic intraperitoneal chemoperfusion (HIPEC) is a surgical procedure for advanced abdominal cancers. It treats tumor spread within the abdominal cavity and allows for higher doses of chemotherapy than are usually possible with standard chemotherapy delivery. We offer innovative treatments and state-of-the-art technology to help patients beat cancer, combined with therapies that focus on improving their quality of life.

Q: What are the benefits of HIPEC?

A: HIPEC benefits cancer patients in many ways. We are better able to concentrate the chemotherapy within the abdomen, thereby minimizing exposure to the rest of the body. The hyperthermia enhances the toxic effect of the chemotherapy on the tumor cells while having minimal effect on normal tissues. The HIPEC procedure is typically combined with cytoreductive surgery (CRS), which removes as much cancer as possible prior to treating the remaining cancer with the sterilized, heated chemotherapy solution that circulates through the abdominal cavity. The entire procedure, HIPEC combined with CRS, typically lasts six to eight hours.

Q: How does nutrition enhance cancer treatment?

A: Nutrition and metabolic support are a critical part of integrative treatment, particularly for colorectal cancer patients who often experience symptoms that affect their ability to receive the nourishment they need to stay strong. Patients at CTCA meet with a dietitian for an individualized assessment during their first visit. From there, there is constant adjustment to meet their individual nutritional needs. Nutritional support can help patients tolerate conventional cancer treatments, avoid treatment interruptions, improve energy and maintain a healthy immune system. //

EXPERT INSIGHTS

Philip A. Philip, M.D.
**Leader of Gastrointestinal
Multidisciplinary Team
Barbara Ann Karmanos Cancer
Center // karmanos.org**

Q: Why is it important to get a colonoscopy?

A: Colorectal cancer often begins as a non-cancerous polyp or growth. These polyps can often be found during a colonoscopy and removed before they turn into cancer. Colonoscopies can save lives by diagnosing cancer at its earliest stage when it is easily treatable.

Q: What are the recent advancements in colorectal cancer treatment?

A: Drugs that effectively target the tumor cells are becoming increasingly available to treat colorectal cancer. There also are new procedures to control the cancer when surgery or drugs fail. As a result, we are

seeing a downward trend in deaths from this disease in the United States.

Q: What unique resources does Karmanos Cancer Center offer to patients with colorectal cancer?

A: Karmanos' highly integrated gastrointestinal multidisciplinary program offers personalized and comprehensive care to patients with colorectal cancer. In addition, the Phase I program at Karmanos, which is the largest in Michigan, offers patients a large variety of new drugs that are currently in development and not available elsewhere.

Q: What advice would you offer someone who has just been diagnosed with colorectal cancer?

A: Make an appointment with a cancer specialist from a National Cancer Institute-designated comprehensive cancer center,

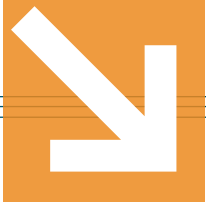


Inset: Philip A. Philip, M.D.

Right: Karmanos Cancer Center has a research partnership with Wayne State University. More than 300 Karmanos investigators research the prevention, detection and treatment of all types of cancer.

such as the Karmanos Cancer Center. You need to be informed of treatment options and have access to the latest and best technology and cancer-fighting drugs. You want the best and brightest on your team when it comes to beating colorectal cancer. //

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TAILORED TREATMENT

When it comes to treating colon and rectal cancer, there are several options, from surgery to chemotherapy. But your best defense is acting early.

By Steve Calechman

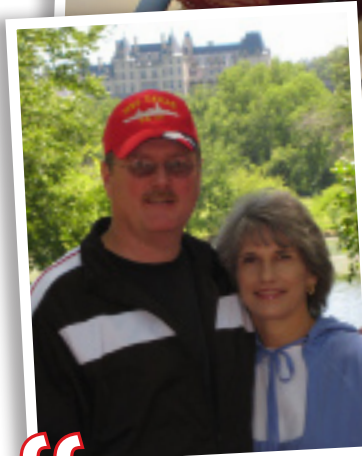


Three years ago, Cathy McGraw received a call at work. It was her doctor with results of a colonoscopy she'd undergone two days earlier. The procedure revealed stage IV colon cancer—the most advanced stage—but McGraw didn't believe it.

"I thought it couldn't possibly be happening to me, because I didn't feel sick," McGraw says. The Houston resident was 48 at the time, in seemingly good health and had no family history of cancer. However, some routine blood work showed she had elevated liver enzymes. This discovery led to the colonoscopy and eventual diagnosis of the disease.

McGraw spoke with friends and researched the disease online. After finding a specialist, she had surgery, radiation and chemotherapy. While she rarely missed work and didn't lose her hair, it was still a long, painful experience. Sitting up made her tired. Chemotherapy made her nauseous. Her progress was measurable, though, and after 14 months, there was no evidence of the disease. These days, McGraw's tests continue to come up clean.

In 2010, more than 140,000 people in the United States were diagnosed with colorectal cancer, making it the third-most prevalent cancer in men and women. However, the disease often gets overlooked, in spite of having an awareness month—March—and a designated color—blue. Unlike other solid organ cancers, colorectal cancer provides a pre-cancerous



Cathy McGraw was diagnosed with colon cancer at age 48. Above and left: Cathy with her husband, Keith McGraw.



I thought it couldn't possibly be happening to me, because I didn't feel sick.



—Cathy McGraw, colon cancer survivor

polyp that can be caught early and removed. Unfortunately, many patients do not catch it in time.

There have been several improvements to colorectal cancer treatment in the past 20 years. Surgery is less invasive. Chemotherapy is more tolerable, says Leonard Saltz, M.D., head of the colorectal oncology section in the department of medicine at Memorial Sloan-Kettering Cancer Center in New York. Thanks to these advances, the death rate from colorectal cancer has been dropping for more than 20 years. But your best defense is getting informed. >>



Chemotherapy is a common treatment for colon and rectal cancers. Toxins are used to kill potential cancer cells.

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Treatment Options

Rectal and colon cancer involve the large intestine, with rectal cancer affecting the last six inches. Both types involve similar treatments, although there are differences.

Colon Cancer

SURGERY // If a colonoscopy detects a tumor, a doctor will perform surgery to remove it, the sections above and below, and the surrounding lymph nodes to prevent further spread.

LAPAROSCOPIC // This procedure is used to determine the advancement of the cancer. A fiber optic device is inserted through the abdominal wall and into the cavity. Since much of the procedure can be done without exposing the abdomen, recovery tends to be faster. Removal of the tumor specimen, though, is done through small incisions. The procedure is based on the cancer's location and whether someone has had previous abdominal surgery, which can cause complicating scar tissue, says Alan Venook, M.D., medical oncologist at the University of California, San Francisco Medical Center.

OPEN // The abdomen is open for a longer period of time compared to laparoscopic surgery, which results in a longer recovery. While you may not qualify for laparoscopic surgery, an open procedure can provide better exposure for the surgery and perhaps more accurate staging.

CHEMOTHERAPY // Delivered by IV or pill, toxins are used post-operatively to kill any remaining or floating cancer cells and reduce the chance of recurrence. If the disease cannot be cured, the drugs are used to contain growth or shrink the cancer, says James Church, M.D., colorectal surgeon at the Cleveland Clinic. Chemotherapy has improved over the years, but it still has side effects such as nausea, mouth sores, extremity numbness, cold sensitivity and reduced resistance to infections.

TARGETED THERAPY // Rather than blasting all cells with toxins, this chemotherapy is intended to inhibit the growth proteins of dividing cells. It can add a few months to the life expectancy of a person with IV diagnosis, but it hasn't been shown to be an effective cure.

THE STAGES

STAGE I // A superficial lesion exists but doesn't penetrate the full wall of the colon. Surgery is the preferred treatment. Follow-up includes regular colonoscopies and possibly CT scans.

STAGE II // The cancer hasn't spread, but it has penetrated through the full thickness of the intestinal wall. Surgery is usually the only treatment needed. People whose tumors are found to have high-risk features may be at increased risk for microscopic spread, and these stage II patients often need post-surgical chemotherapy.

STAGE III // The cancer is in the lymph nodes. Chemotherapy is the standard post-operative treatment.

STAGE IV // The cancer has spread into another, distant site in the body. If a CT scan shows the spread, surgery may not be needed. Doctors use chemotherapy to try to stabilize and shrink the disease, but it's often not curable at that point. If tumors are contained, however, surgeons may be able to remove them, and a cure may be possible.

Rectal Cancer

RADIATION THERAPY // The pelvis area is narrow. With less tissue to remove, there's less room to maneuver during surgery compared to larger areas of the body, such as the abdomen. Used pre-operatively, radiation aims to kill cancer cells, shrink the tumor and prevent recurrence in the affected spot, says Scott Kopetz, M.D., assistant professor of gastrointestinal medical oncology at MD Anderson Cancer Center in Texas. Radiation has risks, however. Long-term complications—including intestinal blockage and poor rectal function—have led researchers to explore alternative strategies.

CHEMOTHERAPY // Through a pill or IV, chemicals aim to kill any potential cancer cells that may have spread. Chemotherapy for rectal cancer is different from that of colon cancer, as it's used pre-operatively in conjunction with radiation as a way to shrink the tumor and control dividing cells.

SURGERY // Surgery removes the tumor, the surrounding areas and the lymph nodes to prevent further spread. Open surgery is the most common surgical method used to treat rectal cancer. Ultrasound and MRIs are used pre-operatively to help doctors gage the cancer's spread and decide if radiation therapy is needed. However, surgery is the only way to determine the cancer's true stage.



THE STAGES

STAGE I // A superficial lesion that hasn't penetrated the rectal wall. Surgery is the usual treatment.

STAGE II // The cancer hasn't spread, but it has penetrated the full thickness of the rectal wall. Treatment can involve alternating rounds of radiation, chemotherapy and surgery.

STAGE III // The cancer has spread into the lymph nodes. Treatment is the same as stage II.

STAGE IV // The cancer has spread into another, distant site in the body. Most patients will only receive chemotherapy as a palliative, not curative, effort. If tumors are localized, however, doctors can perform surgery on affected areas, and a cure may be possible. //

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EXPERT INSIGHTS

Frederick J. Schnell, Jr., M.D.
Medical Director and Radiation Oncologist
RC Cancer Centers // rccancercenters.com

Q: What methods does RC Cancer Centers use to treat colorectal cancer?

A: For patients with involvement of the sigmoid colon or rectum, we often use radiotherapy to the pelvis combined with chemotherapy. Shrinking the tumor prior to surgical resection with a combination of radiation and chemotherapy helps us completely remove the tumor. It also reduces the extent of removal of the colon and rectum.

Q: What is intensity-modulated radiation therapy (IMRT)?

A: IMRT is an advanced type of high-precision radiation therapy. This technique allows us to deliver radiation more precisely to the targeted area. IMRT also allows us to reduce radiation toxicity. By delivering precise radiation, we can achieve tighter margins around the tumor, allowing us to reduce the dose to critical structures such as the small bowel.

Q: Beyond treatment, what unique services do RC Cancer Centers offer to patients?

A: By offering a specialized Integrative Oncology Wellness Program, RC Cancer Centers is committed to treating the whole patient. This program incorporates evidence-based services that can improve the quality of life for cancer patients. Trained experts in the fields of massage therapy, mind-body (epigenetics) and nutrition complement the physician and treatment team.

Q: What advice would you offer to someone who has just been diagnosed with colorectal cancer?

A: Learn about your particular cancer and take an active role in exploring treatment options. Do your research—whether it's online, at attending a support group, or asking your doctor for additional resources and information. Knowledge empowers you to overcome the cancer you are fighting. //