



# RADIATION THERAPY for **COLORECTAL CANCER**

**Facts to Help Patients Make an  
Informed Decision**

# ASTRO

**THE AMERICAN SOCIETY FOR THERAPEUTIC  
RADIOLOGY AND ONCOLOGY**

*Targeting Cancer Care*

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## SIGNS OF COLORECTAL CANCER

**Often there may be no obvious signs of colorectal cancer, but some symptoms can include:**

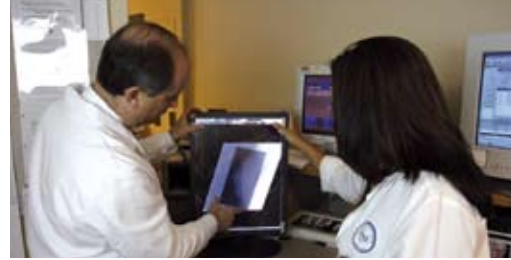
- Change in bowel frequency, such as alternating episodes of diarrhea and constipation.
- Bloody bowel movements or rectal bleeding.
- General abdominal discomfort.
- Bloating.
- Unexplained weight loss.
- Chronic fatigue.
- Unexplained anemia.

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## DIAGNOSING COLORECTAL CANCER

**Special tests to evaluate the colon and rectum are used to detect and diagnose colorectal cancer.**

- A physical exam to assess your overall health, including a digital rectal exam to evaluate the rectum for abnormal masses.
- A test for blood in your stool.
- A **sigmoidoscopy** to look inside the rectum and sigmoid colon for polyps or other abnormal areas that may be cancerous. Your doctor uses a thin, lighted tube.
- A **double-contrast barium enema**, in which the colon and rectum are examined with X-rays showing the inside of the bowel.
- A **colonoscopy** using a long, flexible lighted tube to look inside the rectum and the entire colon. Your doctor is looking for polyps or other abnormal areas that may be cancerous.
- To determine for sure whether you have cancer, some tissue will be removed during sigmoidoscopy or colonoscopy and examined under a microscope. This test is called a **biopsy**.
- Patients with colorectal cancer often require additional scans to see whether the cancer has spread.



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## TREATING COLORECTAL CANCER

**The primary treatment for cancers of the colon and rectum is surgery. For cancers that have not spread, surgery alone may cure your cancer.**

- Depending on the location and stage of your cancer, your doctor may recommend **chemotherapy** and/or **radiation therapy**. They may be given before or after **surgery**.
- For rectal cancer, radiation therapy is usually given with chemotherapy. It can be given before or after surgery. Depending on your tumor, radiation therapy before surgery may allow your surgeon to spare your anus. This would avoid the need for a permanent colostomy and may reduce the chance of the cancer coming back.

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## UNDERSTANDING RADIATION THERAPY

**Radiation therapy, sometimes called radiotherapy, is the careful use of radiation to safely and effectively treat cancer.**

- Cancer doctors called **radiation oncologists** use radiation therapy to try to cure cancer, to control cancer growth or to relieve symptoms, such as pain.
- Radiation therapy works within cancer cells by damaging their ability to multiply. When these cells die, the body naturally eliminates them.
- Healthy cells are also affected by radiation, but they can repair themselves in a way cancer cells cannot.

After learning you have colorectal cancer, it is important to talk about your treatment options with a radiation oncologist.



## POSSIBLE SIDE EFFECTS

**People with colorectal cancer often get chemotherapy while they receive radiation therapy. Side effects during treatment are due to the radiation to the pelvic area and the effects of chemotherapy throughout the body.**

- Possible side effects from radiation include more frequent bowel movements, diarrhea, abdominal cramping, pressure or discomfort in the rectal area, urinating more often, burning with urination, skin irritation, nausea and fatigue. These are usually temporary and resolve after your treatment ends.
- Chemotherapy side effects will depend on the specific drug you receive.
- Treatment may affect your ability to have children. Talk to your doctor to see whether your specific treatments may harm your fertility.
- Side effects are not the same for all patients. Ask your doctor what you can expect from your specific treatment.

Many of these side effects can be controlled with medications and changes to your diet. Tell your doctor or nurse if you experience any discomfort so they can help you feel better.

## CARING FOR YOURSELF DURING TREATMENT

**Receiving cancer treatments can be difficult both physically and mentally. Take care of yourself by:**

- Getting plenty of rest.
- Following doctor's orders.
- Eating a balanced, nutritious diet.
- Treating the skin that is exposed to radiation with extra care.
- Seeking support from friends, family and cancer support groups.

## EXTERNAL BEAM RADIATION THERAPY

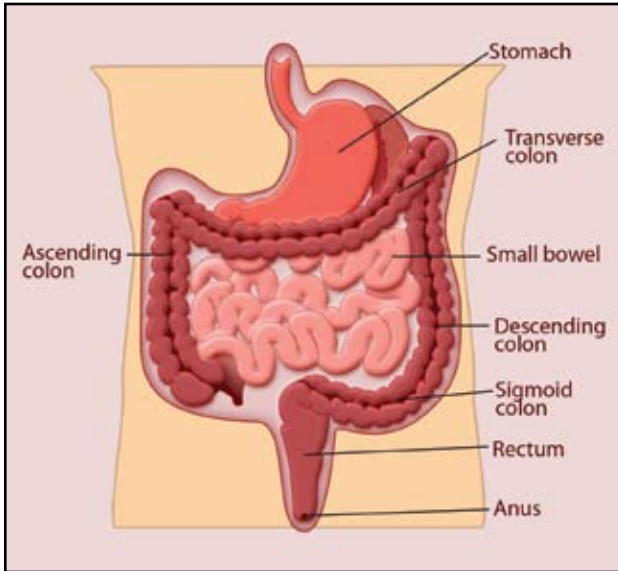
**External beam radiation therapy involves a series of daily outpatient treatments to accurately deliver radiation to the area at risk. The radiation beam usually comes from a machine called a linear accelerator or linac.**

- Before beginning treatment, you will be scheduled for a **simulation** to map out the area being treated. This will involve having X-rays and/or a CT scan. You will also receive tiny marks on your skin, like a tattoo, to help the therapists precisely position you for daily treatment.
- To minimize side effects, the treatments are given five days a week, Monday through Friday, for about six weeks. This allows doctors to get enough radiation into your body to kill the tumor while giving healthy cells time to recover each day.
- Newer technologies like **3-dimensional conformal radiotherapy (3D-CRT)** and **intensity modulated radiation therapy (IMRT)** are being studied for use in treating colorectal cancer. Ask your radiation oncologist for more information on these treatments.



## FACTS ABOUT COLORECTAL CANCER

- In 2007, nearly 155,000 Americans will be diagnosed with cancer of the colon and rectum.
- Colorectal cancer is the third most common cancer in both men and women.



– Diagram of the large bowel and colon.

## GENERAL RISK FACTORS FOR COLORECTAL CANCER

**The greatest risk factor of the disease is age. More than 90 percent of all colorectal tumors are found in people over age 50. However, the disease can happen at any age so it is important to know your family history and the following risk factors:**

- Personal history of colorectal cancer, polyps in the colon, ulcerative colitis or Crohn's Disease.
- Obesity, physical inactivity, smoking, drinking alcohol in excess, and eating too much red meat and not enough fruits and vegetables may also put you at risk of developing the disease.

## ABOUT THE RADIATION ONCOLOGY TEAM

**Radiation oncologists** are the doctors who lead the care of each patient receiving radiation therapy. Other members of the radiation oncology team may include radiation therapists, radiation oncology nurses, medical physicists, dosimetrists, social workers and nutritionists. To find a radiation oncologist in your area, visit [www.rtanswers.org](http://www.rtanswers.org).

## LEARNING ABOUT CLINICAL TRIALS

The radiation oncology team is constantly exploring new ways to treat colorectal cancer through studies called **clinical trials**. Today's standard treatments are the result of clinical trials proving that radiation therapy kills cancer cells and is safe long-term. For more information on clinical trials, please visit:

**National Cancer Institute**  
[www.cancer.gov](http://www.cancer.gov)

**Radiation Therapy Answers**  
[www.rtanswers.org/treatment/clinical\\_trials.htm](http://www.rtanswers.org/treatment/clinical_trials.htm)



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## HELPFUL WEB SITES ON **COLORECTAL CANCER**

### **Colorectal Cancer Alliance**

[www.ccalliance.org](http://www.ccalliance.org)

### **Colorectal Cancer Coalition**

[www.fightcolorectalcancer.org](http://www.fightcolorectalcancer.org)

### **Colorectal Cancer Network**

[www.colorectal-cancer.org](http://www.colorectal-cancer.org)

### **People Living with Cancer**

[www.plwc.org](http://www.plwc.org)

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## ABOUT **ASTRO**

The American Society for Therapeutic Radiology and Oncology is the largest radiation oncology society in the world with more than 8,600 members who specialize in treating cancer with radiation therapies. ASTRO's mission is to advance the practice of radiation oncology by promoting excellence in patient care, promoting research and disseminating research results.

