



TREATING COLON, RECTUM AND ANUS CANCERS

Radiation Therapy

Radiation therapy is often used with surgery and chemotherapy to treat cancers of the colon, rectum and anus. Treatment involves focused radiation to the bowel and pelvis to treat cancer cells in the area. Surrounding healthy tissue can be affected, but normal cells are often better able to heal from radiation injury than are cancer cells.

Frequently, the goal of treatment is “organ-preservation”. With organ-preservation, the part of your body that controls your bowel movements, the anus, is not removed. Radiation therapy is often used in organ-preserving approaches, with the result that you will continue to be able to have bowel movements through your anus. If the anus does have to be removed, you would wear a bag on the outside of your abdomen to collect and store your bowel movements.

- For colon cancer, depending on the location and stage of your cancer, radiation therapy can lower the chance of recurrence.
- For some rectal cancers, radiation therapy is given before surgery, with or without chemotherapy, to make the tumor smaller so it can be removed more easily. In some cases, radiation and chemotherapy are given after surgery instead of before surgery.
- Anal cancer can often be treated with radiation therapy and chemotherapy, as an “organ-preserving” approach that avoids the need for surgery.

Surgery

Surgery often plays a key role in treatment. For colorectal cancers, it is the main curative treatment. The surgeon will determine how much of the large bowel (the colon) needs to be removed. Because the tumor can spread to lymph nodes nearby, some lymph nodes are often removed at the time of surgery. Depending upon the location of the tumor, surgery may or may not allow normal bowel function afterwards.

For anal cancers, surgery is less frequently used at the time of diagnosis because effective “organ-preserving” approaches with chemotherapy and radiation therapy are available. If bowel function is poor, sometimes surgery is used at first, but often it is reserved as a second chance treatment when “organ-preserving” treatment does not succeed. Because surgery for the anal canal involves removing the area responsible for bowel movements, a surgery called a colostomy to re-route bowel movements to a bag outside of the body is usually necessary as well.

Medical Therapy

While surgery and radiation focus directly on treating the bowel or pelvic area, medication is often recommended to improve cure rates. A medical oncologist will evaluate you and determine what medications may be most helpful.

Chemotherapy is a kind of medication that can destroy cancer cells by different methods. Often, two or more drugs may be combined for the best results. The dose and schedule for treatment varies. Some chemotherapy may be given once every few weeks, while in other cases it is given daily. It also differs depending upon the type of cancer. For more details about chemotherapy medications, ask your medical oncologist about what treatment options may be best for you.

EXTERNAL BEAM RADIATION THERAPY

External beam radiation therapy involves a series of daily treatments that accurately deliver radiation to the area needing treatment. The radiation beam usually comes from a machine called a linear accelerator. Before beginning treatment, you will be scheduled for a session to map out the area to be treated. This will frequently involve having a CT scan. Landmarks placed on your skin (often tiny tattoos) allow the radiation therapists delivering your treatments to position you in the same position each day.

To minimize side effects, the treatments are usually spread out over several weeks, five days a week (Monday through Friday). This allows your doctors to get enough radiation into your body to kill the tumor cells, while giving healthy cells time to recover each day.

Technical terms that may be mentioned for colorectal and anal cancer treatments include three dimensional conformal radiation therapy (3-D CRT), intensity modulated radiation therapy (IMRT) and image guided radiation therapy (IGRT). Your radiation oncologist can provide more information about these different techniques.

POSSIBLE SIDE EFFECTS

- Radiation therapy to the abdomen and pelvis may cause more frequent bowel movements, occasionally with diarrhea, abdominal cramping or rectal discomfort. It may also cause more frequent urination, sometimes with a burning feeling. Treatment may cause a small amount of blood to appear in the urine or stool. These should go away after treatment ends.
- Some patients may also feel tired or lose their appetite. This is temporary as well.
- Possible skin irritation problems depend on your tumor and the areas needing treatment. For anal cancer patients, a pronounced but temporary skin irritation is usually the major side effect from the treatment. It is possible that your treatment may need to be put on hold if the skin reaction is severe. Talk with your doctor and treatment team (including the nurse and radiation therapist operating the radiation machine) about any new symptoms you experience during treatment.
- Side effects that occur are not the same for all patients. Ask your doctor what you might expect from your specific treatment program.
- It is likely you will receive chemotherapy in addition to radiation therapy. The side effects from the chemotherapy will depend on the type being prescribed and how often you are to receive the treatments. Ask your medical oncologist about what chemotherapy side effects you may experience. Side effects often can be controlled with medications or changes in your diet. Tell your doctor or nurse if you experience any side effects, so they can work to help you feel better.



CARING FOR YOURSELF

CARING FOR YOURSELF DURING TREATMENT

It is important to care for yourself as well as possible during radiation therapy because the normal parts of your body that are near the tumor are also receiving some radiation, although not as much as the cancer. These normal parts of your body need time and support to heal. A balanced diet, mild amount of physical activity and taking time to rest are all important parts of your cancer treatment. Follow your doctor's orders and, if you are unsure of anything, ask your nurse or doctor any question you may have about treatment. Be sure to tell your team about any vitamins or dietary supplements that you are currently taking to make sure they are safe to take during radiation therapy.

During and even after radiation therapy is over, you will need to take special care of your skin. Stay out of the sun, avoid hot or cold packs, and do not use lotions or ointments without checking with your doctor or nurse first. You should also be sure to clean the skin over the areas receiving radiation therapy with warm water and mild soap.

Completing treatment and recovery can be challenging. Seek out help from support groups, family and friends ahead of time. If you have a support network in place before and during treatment, it will be easier to get through side effects since people you can count on will be around to help you. If you need additional support, let your treatment team know.

Visit
www.rtanswers.org
to download a complete
chart of side effects.

Organ System	Short-term (Acute) Complications (Start During or Shortly After Treatment)	Long-term (Chronic) Complications (Start Months After Treatment)
General Body	<ul style="list-style-type: none"> Fatigue Decreased blood counts 	<ul style="list-style-type: none"> None
GI	<ul style="list-style-type: none"> Frequent bowel movements Diarrhea/loose stools Cramping Rectal discomfort/pain 	<ul style="list-style-type: none"> Diarrhea Frequent bowel movements Intolerance Scar tissue/Bowel blockage Bleed with bowel movements
GU	<ul style="list-style-type: none"> Frequent urination Burning/pain with urination 	<ul style="list-style-type: none"> Increased urinary frequency Blood with urination Scar tissue
Skin in Radiation Field	<ul style="list-style-type: none"> Irritation/Inflammation Itching Redness/Darkening Dryness Hair loss Pain Dry and Wet peeling 	<ul style="list-style-type: none"> Small blood vessel formation (telangiectasia) Lightening/darkening of treated skin Fibrosis Tissue thickening Dryness Hair loss Discomfort with sexual intercourse
Lymph (Drainage) System		<ul style="list-style-type: none"> Swelling of legs (only when groin areas are treated)

LEARNING ABOUT CLINICAL TRIALS

The radiation oncology team is constantly exploring new ways to treat colon, rectal and anal cancers through studies called clinical trials. Today's treatment standards are the result of earlier clinical trials proving that radiation therapy kills cancer cells and is safe in the long-term. For more information on current clinical trials, please visit:

National Cancer Institute
www.cancer.gov/clinicaltrials

Radiation Therapy Answers
www.rtanswers.org

HELPFUL WEB SITES ON COLORECTAL CANCER

National Cancer Institute
www.cancer.gov/clinicaltrials

Radiation Therapy Answers
www.rtanswers.org

Cancer.Net
www.cancer.net

Radiation Therapy Oncology Group
www.rtog.org

Clinical Trials.gov
www.clinicaltrials.gov

Colorectal Cancer Alliance
www.ccalliance.org

Colorectal Cancer Coalition
www.fightcolorectalcancer.org



ABOUT THE RADIATION ONCOLOGY TEAM

Radiation oncologists are the doctors who oversee the care of each person undergoing radiation treatment. Other members of the treatment team include radiation therapists, radiation oncology nurses, medical physicists, dosimetrists, social workers and nutritionists. For information on what each of these professionals does or to locate a radiation oncologist near you, visit www.rtanswers.org.

ABOUT ASTRO

The American Society for Radiation Oncology is the largest radiation oncology society in the world with more than 10,000 members who specialize in treating cancer with radiation therapies. ASTRO is dedicated to improving patient care through education, clinical practice, advancement of science and advocacy. Visit www.astro.org for more information.



ASTRO
TARGETING CANCER CARE

Radiation Therapy for Cancers of the Colon, Rectum and Anus



In 2015, it is estimated that 93,090 Americans will be diagnosed with colon cancer. Colorectal cancer is the third most commonly diagnosed cancer in men and women. Of those, 39,610 will be diagnosed with rectal cancer. In addition, about 7,270 people will learn they have anal cancer. Patients with these types of cancers often benefit from radiation therapy as part of treatment. Some cancers involving the bowel run within families (hereditary colorectal cancers). It is important to discuss your diagnosis with family members so they can decide with their doctors whether they need to be screened for colorectal cancers. This is especially important if you were diagnosed with a colorectal cancer before age 50 or if there are several other types of cancers that run in your family.

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