

Ready to start planning your care? Call us at [800-525-2225](tel:800-525-2225) to make an appointment.

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Memorial Sloan Kettering
Cancer Center

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Radiation oncologists, such as Melissa Zinovoy, use advanced techniques to achieve pinpoint accuracy so they can protect nearby organs while improving results.

Our radiation oncology team uses radiation therapy to destroy rectal tumors. This form of treatment uses high-energy beams or radioactive seeds to kill cancer cells. We use sophisticated, highly precise tools to deliver powerful doses of radiation directly to tumors while avoiding damage to healthy tissues.

Your [care team](#) may use radiation therapy to treat rectal cancer in variety of ways:

- to shrink tumors before surgery, making it easier for a surgeon to remove them
- instead of surgery for people who aren't good candidates for surgery
- to relieve symptoms, such as pain and blockage in the intestines in advanced rectal cancer that has spread

Our radiation oncologists plan each radiation treatment carefully so the correct radiation dose is delivered precisely where it's needed. Advanced technology makes it possible to destroy rectal tumors while limiting damage to nearby healthy tissue.

Request an Appointment

Call [800-525-2225](tel:800-525-2225)

Available Monday through Friday, 8 a.m. to 6 p.m. (Eastern time)

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What is external-beam radiation therapy for rectal cancer?

External-beam radiation therapy (EBRT) delivers a highly focused beam of radiation directly to the tumor. EBRT is the most common type of radiation therapy for rectal cancer treatment. It is proven to reduce the chance that the tumor will regrow in the pelvis after surgery. Newer radiation techniques can reduce radiation exposure to the pelvic bones, decreasing the risk of osteoporosis.

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What is intensity-modulated radiation therapy for rectal cancer?

Intensity-modulated radiation therapy (IMRT) uses sophisticated software and 3-D images from CT scans to target tumors with greater precision than EBRT. Our radiation oncologists use IMRT to treat people with anal cancer, tumors near the anus, or rectal cancer that has come back after surgery. People with anal or rectal cancer may also receive chemotherapy drugs that make radiation more effective.

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What is image-guided radiation therapy for rectal cancer?

Image-guided radiation therapy (IGRT) uses advanced imaging techniques. First, small markers are implanted in the body. Their locations are then verified using a CT scanner just before treatment, guiding the radiation delivery. IGRT is an effective treatment for people with cancer that has come back after earlier pelvic radiation therapy. Because IGRT is highly focused, therapy can take as few as three treatments.

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What is intraoperative radiation therapy for rectal cancer?

Intraoperative radiation therapy (IORT) is part of some rectal cancer surgery. It delivers a single concentrated dose of radiation therapy directly to the tumor using radioactive seeds. This allows doctors to deliver an intense and highly focused dose of radiation while avoiding healthy tissue. Some people who have IORT have already had a full dose of EBRT, so they can't safely receive more EBRT. Your care team may use IORT if rectal cancer has come back in the pelvis after initial surgery and radiation therapy.

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What is endorectal brachytherapy for rectal cancer?

Endorectal brachytherapy involves temporarily placing radioactive material in the rectum. The highly targeted treatment minimizes radiation exposure to nearby healthy tissue. This treatment is an option for some MSK patients whose cancer has come back but who aren't candidates for surgery.

[Learn more about radiation therapy](#)

Clinical Trials

Your care team may be able to recommend [one of our clinical trials](#) as part of your overall care plan. Clinical trials may give you access to new or experimental radiation therapies.

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