

Multiple Myeloma: Radiation Therapy



What is radiation therapy?

Radiation uses high-energy beams of X-rays or particles to kill cancer cells.

When might radiation be used?

Radiation is seldom the main treatment for multiple myeloma, but it might be part of the treatment for some people. Your healthcare provider may suggest radiation to:

- Help relieve bone pain that isn't responding to other treatments
- Help prevent a fracture
- Help prevent spinal cord damage when bones of the spine (called vertebra) collapse, which is a medical emergency
- Treat a single plasma cell tumor, called a solitary plasmacytoma (in this case, radiotherapy may be the main treatment)

You'll meet with your healthcare team to discuss if and when radiation may be the right treatment for you. The team might include a hematologist, radiation oncologist, and medical oncologist.

What happens during radiation?

The most common way to get radiation for myeloma is from a large X-ray machine. It focuses invisible beams of energy, called photons, on the tumor. This is called external beam radiation. A healthcare provider who specializes in cancer and radiation is called a radiation oncologist. This provider works with you to decide the kind of radiation you need. They will determine the dose and how long you'll need the treatment.

External beam radiation therapy is given on an outpatient basis at a hospital or a clinic. This means you go home the same day. How often and how long you get radiation depends on why it's being given. It's often given as daily treatments 5 days a week, Monday through Friday. It will be given for a few weeks to treat pain, a fracture, or prevent spinal cord damage. If radiation is used to treat a solitary plasmacytoma, it may be given over 4 to 6 weeks.

Preparing for radiation

Before your first treatment, you'll have a session to find exactly where the radiation beams need to be focused. The process is called simulation. It may take up to 2 hours. During this session, imaging tests, like a CT scan, MRI, or PET scan, are done. This is to help your radiation oncologist know exactly where the tumor is to aim the radiation. Body molds or casts may also be made at this visit. These help put you in the same position for each treatment. They also help keep you from moving during treatment.

The radiation therapist is a part of your radiation therapy team. You'll lie still on a table while a radiation therapist uses a machine to define your treatment field or port. The field is the exact spot on your body where the radiation will be aimed. The therapist may mark your skin with tiny dots of semi-permanent ink or tiny tattoos. This allows them to aim the radiation at the exact same place each time.

On the days you get radiation

On the days you get radiation treatment, you'll lie on a table. The machine will rotate around you. You may have to wear a hospital gown. It's a lot like getting an X-ray, only it may take a little longer. It usually takes about 15 to 30 minutes to complete the radiation. But you should plan on being there for about an hour.

At the start of the treatment session, a radiation therapist may use blocks or special shields to protect parts of your body from radiation exposure. The therapist then lines up the machine so that radiation goes to the right place. You may see lights from the machine that line up with the spots that were marked during simulation.

When you're ready, the therapist leaves the room and turns the machine on. You may hear whirring or clicking noises, much like the sounds of a vacuum cleaner, while the radiation is being given. During treatment, you'll be able to hear and talk with the therapist over an intercom. And the therapist can see you. You can't feel the radiation, and it doesn't hurt. You will not be radioactive afterward.

What to expect after radiation therapy

Because radiation affects normal cells as well as cancer cells, you may have some side effects. The side effects from radiation tend to be limited to the area being treated. And they tend to get worse as treatment goes on. Tell your healthcare provider about any side effects you have. They can often give recommendations to ease those side effects. In rare cases, if the side effects are intolerable, your healthcare provider may change your treatments or stop treatment until the side effects get better. The healthcare provider will check how well you responded to radiation therapy at least 3 months after the last treatment session.

Potential side effects

Common side effects of radiation include:

- You may have skin irritation or changes in your skin that gets radiation. This is often like a bad sunburn. And your skin may blister, become dry, feel itchy, and peel.
- You may feel tired.
- Nausea or diarrhea can happen if radiation is aimed at your stomach or pelvis.
- You may experience low blood cell counts, depending on the area of the body radiated.

If you have any of these side effects, talk with your healthcare provider about how to deal with them. Also ask how to know when they become serious and when you need to call your provider. Know how to get help after office hours and on weekends and holidays.

Side effects usually go away over time after your treatment is complete.

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