

Intensity Modulated Radiation Therapy

General Information

Your doctor may want you to have a special type of radiation treatment known as intensity modulated radiation therapy (IMRT).

IMRT can focus a higher dose of radiation on a specific area better than regular radiation therapy. IMRT uses hundreds of tiny pencil-thin radiation beams which strike the tumor at different angles. (Think of the beams as being spread or “painted” over the tumor.) This means the tumor gets more radiation than the surrounding healthy tissue.

IMRT can be used to treat tumors anywhere in your body. The patients who benefit the most from IMRT are those who have prostate, head, neck and brain cancers. Other patients who benefit from IMRT are those who have solid tumors, multiple tumors, or patients who received the doses of regular radiation therapy in the past.

IMRT Benefits

In general, IMRT:

- reduces complications from regular radiation therapy
- can treat multiple tumors at the same time
- can treat tumors that are odd-shaped, wrapped around or near critical areas, or tumors that could not be removed with surgery
- can treat cancers that return after having been treated with doses of regular radiation therapy.

Treatment Planning

In general, one IMRT treatment takes about 20 to 30 minutes. An entire course of treatment may take up to 40 days with treatments being done Monday through Friday. The exact length of your treatment depends on the kind of tumor, its size and its location.

- You will meet with a radiation oncologist to talk about your general radiation treatment plan.
- You may need to have a scan of the treatment area in the treatment position. This may be a CT, MRI or PET scan. The therapist will explain the scan to you.
- After a simulation procedure, the radiation oncologist develops a specific IMRT treatment plan.
- Ask questions or talk about concerns.

Before the Daily Treatments

- You may receive directions for drinking liquids before each treatment. A therapist will talk with you about your directions.
- You may have an X-ray before treatment to verify the treatment positions. The X-ray table may move slightly to get into the same position each day.

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During the Treatment

- You will wear a hospital gown or undress in the area being treated.
- You will be helped onto a special table where you will be positioned for the treatment.
- You will have pads or immobilization devices around you to keep you from moving.
- You will be alone during the treatment. The therapists will watch you closely on a TV monitor and listen to you on an intercom.
- The machine moves around you as it performs IMRT.
- You may hear a buzzing sound when you are receiving the radiation.
- The radiation is delivered through thousands of pencil-thin beams.
- The radiation treatment lasts about 20 to 30 minutes.
- A radiation oncology nurse is available to answer your questions or concerns.
- The radiation therapy treatments are painless.
- You will not be radioactive in any way. You are of no risk to your loved ones.

After the Treatment

- You will be helped off the table.
- You may change and go home.

Radiation Treatment Side Effects

Radiation may have side effects. They may not begin with the first treatment and they may continue beyond your last treatment.

Side effects will depend on the body part being treated. Your health care team will explain the side effects to you.