

# Radiation Therapy

During radiation therapy, high-energy x-rays are used to treat cancer, either by destroying the cancer cells or by making them unable to grow and divide.

In external radiation therapy, a machine called a linear accelerator (LIN-ee-ur ak-SELL-er-a-tor) is used to produce a beam of rays that is directed to the tumor or the part of your body that is being treated.

A team of skilled doctors, nurses, physicists, dosimetrists, and therapists plans and provides treatment designed especially for you. A dietitian and a social worker are also available. This team of health professionals is available to help you as you receive radiation therapy.

## At Your First Visit

When you come to the Radiation Oncology Department for your first appointment, you will meet your nurse and doctor. They will review your records and x-rays, examine you, and explain what radiation therapy is and why it is recommended for you. Expect to spend about one to two hours during your first visit. Be sure to bring or have your referring doctor send us the following information:

- Medical records
- List of medications you are currently taking
- Laboratory reports
- X-ray films and reports
- Scan (CT, MRI, bone) films and reports
- Pathology report and slides
- List of your doctors' names, addresses, and telephone numbers

Having these reports sent to us before your appointment will help the doctor plan your care.

It is also important to bring your insurance information. Financial counselors and billing staff are available to answer questions that you might have about insurance coverage.

Before you begin treatment, you will need to sign a consent form. This form gives us your permission to treat you. If you and your doctor decide to start radiation therapy, the next steps are simulation and treatment planning.

## About Simulation

A CT scan or other diagnostic film may be ordered by your doctor to help plan your treatment. The planning of your treatment may require several visits. The therapist follows your doctor's instructions to "set up" your treatment.

During planning, the therapist takes x-rays of the part of your body to be treated. These x-rays give the doctor a picture of the area to be treated and help determine how the radiation will be directed to your body. Planning your treatment needs to be completed before you start treatment.

Using the x-rays as a guide to the treatment site, the therapist uses a marker to outline the treatment area on your skin. These marks are very important. They act as a map of the treatment area, and the therapist uses them each day as a guide during your treatment. Sometimes after a few treatments, tiny permanent dots, called tattoos, can be used to replace the painted marks on your skin. Photos of these marks may be taken to help the therapist determine

the location of the treatment site. A portrait photograph may be taken for identification purposes and will remain with your confidential medical record. The therapist may also need to make a molding of your body. This is used to keep you in the same position for every treatment.

Simulation may take up to an hour. In some instances, an additional appointment is needed for planning purposes. Afterward, you will make an appointment for your daily treatment time. While at home, do not use soap or lotion on the marks, unless you have the permanent dots. You can rinse your skin with water, if necessary, and pat it dry without removing the temporary marks. Please ask your nurse to review skin care instructions.

### About Your External Radiation Treatments

The radiation treatments should take about 15 minutes from the time you enter the treatment room. Your therapist will set up your treatment according to the marks on your skin and the information obtained from the simulation. This set-up takes a few minutes. You must lie still and allow your therapists to position you for treatment. They need to make sure that all measurements are the same as they were in the planning stage. Your actual treatment will last about one minute for each area. Your therapist will take x-ray films using the treatment machine on the first day and again after every five or six treatments. Your doctor will compare these x-rays to the x-rays from your simulation.

Your radiation therapy will continue Monday through Friday for the number of treatments your doctor has prescribed. You will have the same appointment time each day. Every effort will be made to start your treatment at the scheduled time. However, there may be occasional delays due to emergency patients, technical problems, or other difficulties, and the schedule may need to be adjusted.

You will see your doctor and nurse at least once a week while you are undergoing treatment. If you are having any problems, let us know when you come in for your treatment, or call the department and your nurse will meet with you.

Patients often ask if radiation therapy treatments can make them radioactive. Radiation therapy treatments do not pose this risk, and you should continue your normal activities with your family and friends.

### Your Treatment Plan

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