

# WHAT TO EXPECT DURING IMRT TREATMENT

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## ***Radiation Therapy in Cancer Treatment***

About half of people treated for cancer will receive radiation therapy at some point during treatment. Focused radiation is used either alone or in combination with other treatments such as chemotherapy and surgery. Radiation therapy is the use of high-energy x-rays to target specific cancer sites and eliminate cancer cells. It works by damaging each cancer cell's ability to reproduce.

Radiation therapy may be used to eliminate cancer, relieve symptoms associated with cancer, and/or prevent the cancer from returning. Much of the newer, more advanced technology allows the radiation oncologists to better target these tumors while avoiding damage to the normal, healthy cells. Radiation can be delivered either from a machine outside the body (external beam radiation) or from a radiation source implanted permanently or temporarily in the body (brachytherapy). The treatment you receive will depend on the type of cancer you have as well as the location and size of the tumor(s). Your doctor will review your options and determine the best treatment plan for you.

## ***Meet the Treatment Team***

Your care will be handled by a team of experienced oncology specialists dedicated to providing you and your family with the highest quality of care.

The ***Radiation Oncologist*** is the physician responsible for developing an individualized plan for how the radiation will be delivered and what doses of radiation are necessary to achieve successful treatment. Along with the treatment team, the radiation oncologist will oversee your treatment, monitoring you closely to ensure the treatment is delivered precisely.

***Radiation Oncology Nurses*** will work closely with you to answer any questions you may have before, during and after treatment and to assist with the management of side effects.

***Radiation Therapists*** will help to position you and deliver your prescribed daily treatments.

***Dosimetrists*** take the prescription written by the radiation oncologist and create the best treatment plan to ensure the tumor receives enough radiation while sparing the normal tissue.

***Medical Physicists*** work closely with the radiation oncologist during treatment planning and delivery. They make certain that complex treatments are properly customized to each patient.

### ***What to Expect Before Treatment: Simulation***

During your first visit the radiation oncologist will evaluate your medical history and conduct a physical exam to assess your clinical condition as well as the extent of disease. Your physician will discuss the benefits and possible risks associated with radiation therapy before your treatment begins.

Once it is determined that radiation will be used as part or all of your cancer treatment, it is necessary to carefully plan your therapy. This process is called simulation. This entails:

- Taking detailed images of your body with CT, MRI, and PET/CT to determine where the cancer is for better therapy planning
- Measuring and marking the areas receiving radiation
- Placing you in the exact position in which you will be receiving your radiation treatment
- Creating devices and molds to securely hold you in treatment position
- Marking your body with implanted markers or tattoos to better target the tumor

Once you are finished with your simulation, your treatment team will use the images along with your prior medical history and develop a plan tailored to your specific needs. This plan will outline how much radiation will be delivered to certain parts of your body. Once the planning is finished, you are ready to start your therapy. During your treatments, you will be positioned as you were during the simulation process. At this time, any positioning devices that were used during simulation will be used again to ensure you are in the exact position for each treatment.

### ***What is IMRT?***

Intensity-Modulated Radiation Therapy (IMRT) is the most sophisticated form of external radiation that allows the radiation beam to be more precisely shaped to the tumor. With IMRT the radiation beam is segmented into several smaller beams. The physician is able to adjust the intensity of each beam and tightly conform to the shape of the tumor. This allows for delivery of the highest possible dose to the tumor while sparing surrounding healthy tissue. This specialized technology improves quality of life, reduces side effects, and preserves normal organ function.

### ***How is IMRT Delivered?***

IMRT is delivered using a machine called a linear accelerator. You will be positioned correctly on the treatment table as the linear accelerator rotates around your body delivering radiation from many different angles.

### ***How Long will Treatment Last?***

Generally the treatment time will depend on many factors such as the cancer type, location and size. Each IMRT session will take approximately 15-30 minutes. Most IMRT treatments will be delivered once or twice a day, five days per week for 4-8 weeks.

### ***Which Types of Cancer can be Treated with IMRT?***

- Prostate cancer
- Head and neck cancer
- Breast cancer
- Lung cancer
- Brain tumors
- Spinal tumors
- Pancreatic cancer

### ***What Are the Side Effects Associated with IMRT?***

Side effects with IMRT are fewer than with conventional radiation therapy because of the very precise way the radiation is delivered. IMRT has helped to reduce side effects patients experience both during and after treatment. Typically, side effects may vary depending on the specific area where the radiation is being delivered.

- Side effects may include:
- Fatigue
  - Skin irritation
  - Loss of appetite

Side effects usually peak within the second to third week of treatment and can last for a while after treatment. If you do experience discomfort, it is important that you discuss this with your treatment team. Most of the side effects can be managed through medications and changes in your diet. Your nurse will be able to work with you and discuss ways to manage these changes to make you feel more comfortable.

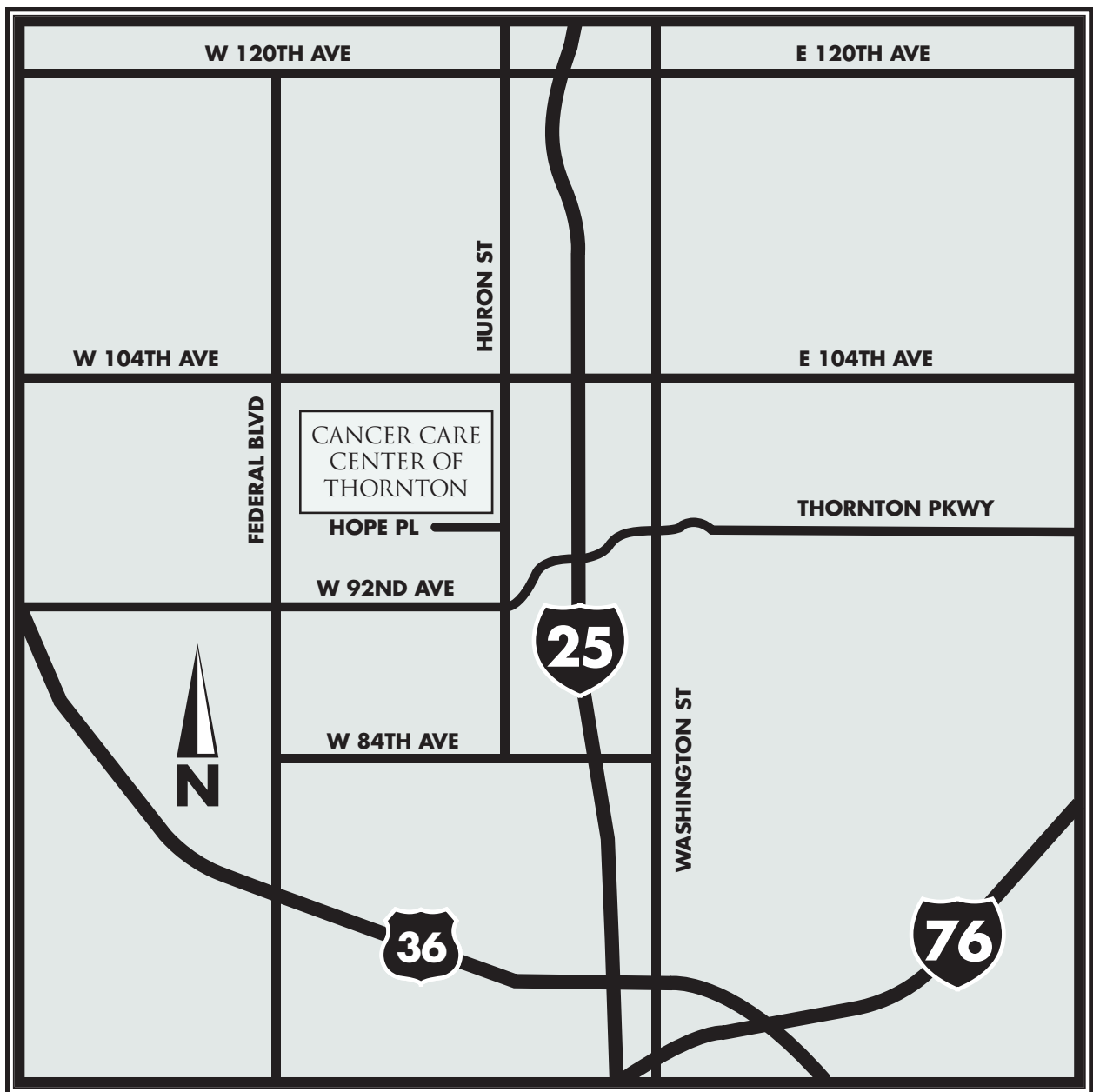
Many patients are still able to function normally while undergoing treatment, however it is important to get plenty of rest and take time each day to relax. This is the time to ask for help from family members and friends.

### ***What Happens After I Am Finished with Therapy?***

After treatment you will return for regular visits to evaluate for side effects and ensure that you are healing properly. You may have additional testing and imaging to make sure treatment was successful and to monitor you for recurrence.

### ***Will my Insurance Cover IMRT Treatment?***

We are committed to helping you and your family have full access to all cancer services. Most insurance plans are accepted. If you have any questions regarding your insurance carrier, please contact our patient insurance specialist.



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