



## Intensity Modulated Radiation Therapy (IMRT)

We know battling cancer is challenging for you and your family, and we are dedicated to providing you with advanced and personal cancer care. We make every effort to schedule your treatment at times that minimize disruption of your normal day, and allow you to pursue normal activities. Our goal is to make your course of treatment convenient, easy and most importantly, effective. If you have any questions or need more information about your treatment or schedule, please let us know.

### Will I have any side effects with IMRT?

Many patients react differently to cancer treatment. IMRT will often decrease the risk and severity of common side effects of radiation therapy. In fact, the increased precision of IMRT means most patients experience very few side effects.

Patients continue to drive, work and play during the treatments. However, because this is radiation therapy, potential side effects may include mild fatigue and bladder and/or bowel changes. Whether or not you experience any of these primarily depends upon the treatment dose and the part of the body that is treated.

Most of the side effects that occur during radiation therapy can be easily managed. Discuss any side effects with your doctor so he or she can work with you throughout your treatment to prevent or control them with medication or diet.

### How many treatments will I need?

Radiation treatments are designed to use small amounts of radiation over a series of days in order to help protect normal body tissue in the treatment area. Usually radiation therapy is given five days a week for seven to eight weeks.

Because IMRT is specially designed for each patient, your treatments will vary depending on your specific needs. Your doctor will discuss each stage of treatment with you and will help you understand your overall treatment plan.

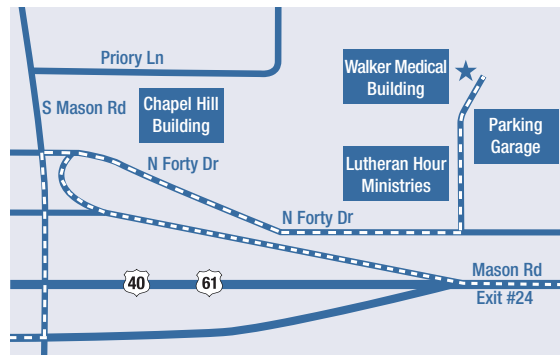
*Your appointment is scheduled for:*

Date:

Time:

Location:

### Location



### Walker Medical Building

**N. Tower Lower Level 1**

12855 N. Forty Drive

St. Louis, MO 63141

Phone 314-523-5444



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**Leading-edge technology  
combined with a human touch.**





## Intensity Modulated Radiation Therapy (IMRT)

*As part of your individualized cancer treatment, your physician has determined that you should receive Intensity Modulated Radiation Therapy (IMRT), one of the most advanced technologies available.*

### What is Intensity Modulated Radiation Therapy (IMRT)?

Intensity Modulated Radiation Therapy (IMRT) is an advanced form of radiation treatment that allows radiation oncologists to precisely target tumor volumes. It is a noninvasive therapy that uses Computed Tomography (CT) or other imaging modalities to build three-dimensional diagnostic images and map treatment plans to deliver tightly focused radiation beams of varying intensity to cancerous tumors without needles, tubes or catheters. Varying the intensity of these beams enhances the ability of IMRT to maximize dosage and minimize the amount of radiation distributed to surrounding healthy tissue.

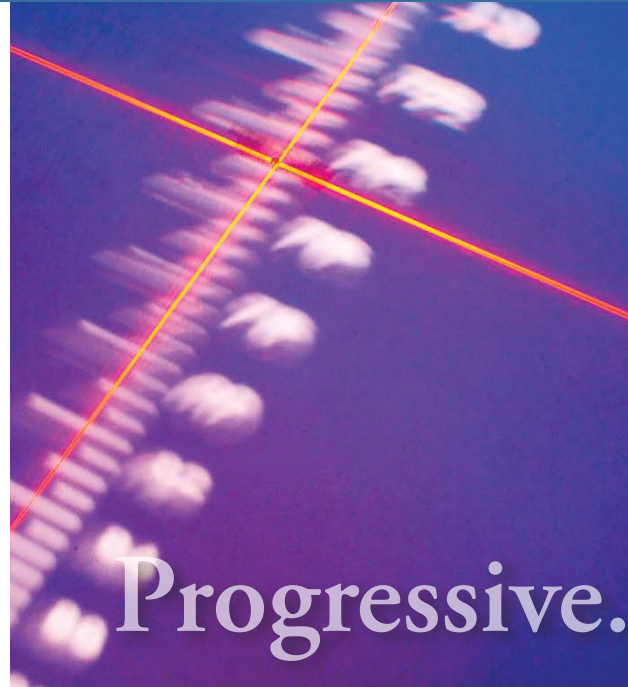
### How does radiation therapy work?

Radiation therapy uses high-energy X-rays or particles to destroy the cancer cells and shrink the tumor while minimizing the adverse effects on nearby healthy organs and tissue. Although some normal cells are affected by radiation therapy, they recover from the effects of radiation better than cancer cells.

### What are the benefits of IMRT?

#### *More Precision.*

With IMRT, your doctor can target your cancer with a high-resolution radiation beam that conforms as closely as possible to the shape of the tumor. This means the specific cancer can be treated more safely and effectively.



#### *More Control.*

IMRT allows your radiation oncologist to develop a plan based on the three-dimensional images that delivers varying strengths of radiation to different parts of the tumor. The dose can be higher in the most aggressive areas of the tumor and lower in areas where the beam is near or passing through healthy tissue or structures.

#### *More Options.*

Because IMRT enhances control of radiation delivery, physicians can now often treat tumors once considered difficult to treat because they are so close to vital organs and structures. IMRT significantly reduces radiation to the bladder and rectum. Many patients choose radiation instead of surgery or other invasive techniques to treat their cancer with equal efficacy and cure rates.

### What can I expect with IMRT?

#### *Step 1: Preparation*

Before you begin IMRT treatments, you will attend a preparation session, which may take 45-60 minutes. During this session, we will perform X-ray, computed-tomography (CT) or MRI exams to help your doctors design your specialized treatment plan. The therapy team may also place marks on your skin with colored, semi-permanent ink or a small tattoo to help them align the IMRT equipment during your treatments.

Keeping the IMRT equipment aligned with the target area means that you will need to maintain a set position and keep very still during your treatments. To make you more comfortable and enhance the accuracy of your treatment, our team may develop customized molded plastic or foam devices that help you keep the same position.

#### *Step 2: Treatment Planning*

Following the preparation session, a treatment will be designed with great detail that is individualized for your specific needs. This process may take several days because it will involve input from your radiation oncologist, physicist and dosimetrist. Once it is complete, you will begin your IMRT treatments.

#### *Step 3: Treatment Sessions*

The first IMRT treatment session may last longer than subsequent daily appointments because additional X-ray exams and accuracy checks will be performed. A typical IMRT session lasts about 15 minutes.

In the treatment room, you will see a large machine called a linear accelerator, which will deliver the radiation beams. It will be rotated around your body with great precision.

Using the ink marks on your skin made during the planning session, the radiation therapist will position you on the table below the machine. Before the machine is turned on, the radiation therapist will leave the room. Although the linear accelerator is controlled remotely, the therapist can still see and talk to you. You will not see or hear the radiation and usually not feel anything.