You will be put into your positioning cast every day of treatment to ensure that you are in the correct position while lying on the treatment table. The table is part of the linear accelerator, which is the machine that rotates around the patient and generates the radiation. The linear accelerator will be lined up to the precise location of the tumor. When your team is in agreement that the plan is correct, the linear accelerator machine will be programmed and your treatment will begin. Your radiation therapist will leave the room while the radiation is turned on. Your therapist will be watching you from a monitoring station outside of the treatment room, and will be able to communicate with you through an intercom. This part of the treatment takes approximately 10 to 20 minutes, but can vary for each patient. Receiving radiation treatments is just like having an X-ray, and is painless.

Side Effects
Any type of radiation therapy has the potential to cause side effects for patients. Many patients who have IMRT report fewer and less severe side effects than those associated with other radiation therapies.

A common side effect of radiation is fatigue. Other side effects are specific to the area being treated. Side effects will usually begin during the second week of treatment, and will slowly disappear after the last treatment is completed. Talk to your physician or nurse about any side effects you are experiencing. They may be able to recommend self-care instructions to help lessen the side effects.

IMRT treatments will not make your body radioactive, so having close contact with people (including hugging and kissing) or having sexual relations with your partner poses no risk of exposing others to radiation.

After the Treatments
You will return home after the final treatment and may resume normal activities as you feel comfortable. Some patients resume normal activities almost immediately after the final treatment. Others need more time to recover from various side effects they may experience.

Before being discharged, a one-month follow-up appointment will be scheduled with your radiation oncologist. At this appointment, your physician will administer an imaging and/or blood test (depending on the type of cancer being treated) to determine the effectiveness of the IMRT treatment. You will have more follow-up appointments scheduled throughout the next year.

Billing for IMRT Treatments
You will receive more than one bill for the services you are receiving. You will receive a bill from Albany Saratoga Radiation Oncology Associates for your physician’s services, and a separate bill from St. Peter’s Hospital for technical services.

If you have questions about your bills, please contact the appropriate numbers below:
- Albany Saratoga Radiation Oncology Associates (518) 389-1804
- St. Peter’s Hospital (518) 275-4000
- St. Peter’s Radiation Oncology Department (518) 525-1404
When a patient is diagnosed with cancer, he or she usually has many questions about the disease, treatments and outcomes. At St. Peter’s, we believe patients should take an active role in the decision-making process to help improve their physical and mental health.

One of the newest and most advanced treatment options your physician may recommend is Intensity Modulated Radiation Therapy (IMRT).

IMRT is a state-of-the-art treatment offered by the top cancer centers across the country, including St. Peter’s. Using high doses of radiation, IMRT targets cancer cells more precisely, thereby avoiding healthy tissue and minimizing side effects. St. Peter’s Cancer Care Center offers IMRT, and is the only cancer treatment center in the Capital Region to use a dynamic and beneficial technique called “sliding window” to deliver this type of radiation (see “Sliding Window” section in this brochure).

Patients at St. Peter’s Cancer Care Center receive treatments from a team of top specialists in the area, administered in a confidential, supportive environment. Patients and family members benefit from our compassionate staff and many support services.

What are the benefits of IMRT?

Sparing Healthy Tissue and Organs

Intensity Modulated Radiation Therapy (IMRT) is an advanced treatment method that allows physicians to increase the dose of radiation delivered to a tumor. Using images of the treatment area, computer calculations, body position and other factors, IMRT allows the treatment team to more precisely focus the beams on the cancer cells. This type of targeted treatment provides a more direct attack on the cancer cells, while protecting the surrounding healthy tissue and vital organs in the treatment area as much as possible. IMRT can be used to treat several types of cancer, including tumors that might have been untreatable in the past because of the location of the tumors near vital organs.

“Sliding Window” Technique

St. Peter’s Cancer Care Center is the only cancer treatment facility in the Capital Region to use the “sliding window” technique to deliver radiation during IMRT. This complex system of computer-controlled lead “leaves” (you will hear it being referred to as the multileaf collimator) that move back and forth between the radiation beams during treatment. These leaves help to shape the radiation beams so that they conform to the shape of the tumor and attack the tumor from several different angles. The leaves are also programmed to change speeds so that different doses of radiation can be given to different sections of the treatment area. This method allows for a seamless treatment, instead of stopping and starting the treatment several times as is required with non-multileaf collimator machines. The sliding window technique is the fastest way to deliver treatments for both patients and staff, uses less radiation, eliminates the need for the patient to be repositioned several times, and significantly minimizes the amount of healthy tissue that is exposed to radiation.

Fewer Risks and Side Effects

IMRT is a non-invasive procedure that avoids the risks associated with traditional surgery. It does not involve cutting, bleeding or general anesthesia. It is most often performed on an outpatient basis, avoiding hospitalization. Patients report to the Cancer Care Center for repeated treatments over a period of several weeks, but patients go home after each individual treatment session. Most patients also report fewer side effects than those associated with traditional radiation therapies.

The IMRT Treatment Process

IMRT is performed by a team of specialists in the many areas of cancer treatment, including a radiation oncologist, medical physicist, dosimetrist, radiation therapist and specially trained oncology nurses. An IMRT treatment plan has many stages, and will be spread out over several weeks. The process takes patience, cooperation and commitment from the patient, as well as the treatment team.

All IMRT patients will have an initial consultation and then go through the steps outlined below. Other various tests or preparations may be used depending on the area of your body being treated. If you have further questions, speak to your physician or nurse.

Immobilization and Positioning Films

Positioning is the most important aspect of IMRT treatments. Since you will be returning day after day for treatments, your physician and radiation therapists need to make sure your body is in exactly the same position each day to ensure accuracy of the radiation beams. To do this, you will lie on the treatment table and a mold will be placed around the treatment area. The mold will harden like a cast, and is then removed. This is called “immobilization,” and is part of all IMRT treatment plans. Your personal cast will then be used during each of your treatments. While you are in your cast, some positioning films will be taken to simply “map out” the locations of your tumor and surrounding organs and tissue. This process is painless, though it may feel uncomfortable for some patients to lie in the same position for a long time.

CT Scan

You will also have a CT simulation (type of imaging test like an X-ray) of the treatment area while you are in your cast. The target area on your skin may be marked with a semi-permanent ink to help the staff properly position the radiation equipment once treatments begin. The CT scan images are sent to a treatment planning system which will help to determine several things:

- The size of the tumor and its exact location;
- Where the normal, healthy tissues are located;
- Where the radiation beams should enter your body in order to target the tumor and avoid healthy tissues;
- The dose of radiation to be used.

Your treatment plan will be verified several times by several members of your treatment team before a final treatment plan is approved.

Administering Treatments

Patients will report to St. Peter’s Cancer Care Center for radiation treatments five days a week (Monday through Friday). These treatments can be given over a period of five to eight weeks depending upon the tumor treated. Each appointment will last approximately 30 to 60 minutes. It is very important that you follow all preparation instructions that are given to you by your treatment team. It is very important that no treatments are missed. If a treatment is missed, it will have to be rescheduled.