

Patient Guide

Stereotactic Radiosurgery

Stereotactic Body Radiotherapy



Stereotactic radiosurgery (SRS) is a highly precise form of radiation therapy initially developed to treat small brain tumors and functional abnormalities of the brain. The principles of cranial SRS, namely high precision radiation where delivery is accurate to within one to two millimeters, are now being applied to the treatment of body tumors with a procedure known as stereotactic body radiotherapy (SBRT). These cancer treatments offer important options, especially for patients with inoperable or surgically complex tumors, or those who seek an alternative to conventional surgery. Because SRS and SBRT does not require incisions or anesthesia, there is also much less risk for complications than conventional surgery.

SRS and SBRT offers several benefits for patients, particularly in regards to quality of life issues that may be dramatically impacted by conventional surgery.

Benefits include:

- Only one to five treatments required
- Pain free and requires no anesthesia
- Minimal side effects
- Outpatient procedure with little or no recovery time and no overnight hospital stay required
- Allows for an immediate return to normal activities
- Ability to monitor tumor and patient movement during the procedure
- Minimizes radiation exposure to healthy tissue surrounding a tumor site

On Your First Visit

When you arrive for your consultation appointment with the radiation oncologist, please bring any requested medical records (CT, MRI scans and reports, pathology/biopsy reports) with you unless previously sent to us. It is also important for you to have your insurance cards, including Medicare and any co-insurance cards, as well as your Driver's License or State ID available for our receptionist. We will confirm your benefits and if needed, obtain any pre-authorization required by your insurance company prior to scheduling the SRS or SBRT procedure.

Initial Steps

Below are some procedures that may be performed prior to your SRS or SBRT treatment. Every treatment plan is different and not all of these steps are necessary for every patient. The procedures required as part of your individualized treatment plan, and the order in which they will occur, will be explained during your consultation visit.

CT Simulation

A planning CT scan is needed prior to beginning treatment. Even if you recently had a CT scan as part of your diagnosis, a new one will be needed in order for the radiation oncologist and physicist to develop your customized treatment plan. Some patients may need a soft mesh mask or body cradle molded from a lightweight material that helps in the treatment process. The fitting is painless and is completed as part of the CT scan process.

MR Imaging

Sometimes special imaging procedures, such as magnetic resonance imaging (MRI), are needed in addition to the CT scan. Your radiation oncologist will write specific directions that apply to you. The radiation oncologist also determines whether this procedure requires contrast material, a special dye put in your body that helps the radiologist locate the treatment area on your radiology films. Contrast material is available in intravenous (IV) and oral forms.

Laboratory Studies

The MRI procedure may require contrast material. If so, we need to ensure your kidneys can flush

the dye out of your body. Your physician will order what is known as a “BUN” and a creatinine blood test. The test results determine whether your kidneys can handle the dye on their own or you need IV fluids to help flush out the dye.

Tissue Markers

Depending on your individual case, you may need small tissue markers known as fiducials implanted in or near the tumor site. Fiducials help the treatment system precisely target the treatment area. A physician implants the fiducials in or near the tumor site in a brief outpatient procedure. We will schedule this procedure and provide instructions for preparation. If needed, fiducial placement takes place prior to or right after the treatment planning CT scan.

Day of Treatment

Patients are asked to wear comfortable clothing during SRS/SBRT treatments. Jewelry is acceptable unless it is close to the area being treated. For example, we ask that earrings and necklaces be removed prior to treatment of tumors within the head and neck. Most of all, relax. This is a painless procedure.

A radiation therapist will help you onto the treatment table and fit the mask or body mold if needed. Patients are observed throughout the treatment on closed-circuit television, and can pause treatment at any time by waving or speaking to the technicians.

There is no sedation or anesthesia required. Sometimes patients take naps during their procedures.

You are asked to lie still during treatments. The system can periodically take X-ray images and compare them to the CT scan data to make sure the radiation beam is locked on the tumor.

Patients are usually allowed to leave the center once the treatment is complete and go right back to their normal routines. If your physician prescribes treatment that is fractionated, or divided in stages, you'll need to return for up to four more treatments, depending on the treatment plan.

Follow-Up

Recovery from this treatment procedure is often immediate, given both the low risk of complications and the lack of damage to healthy tissue. In most cases, you will be able to return to your normal activities immediately following the procedure.

After completing your treatment, we will need to see you for follow-up imaging and physician consultation to monitor your tumor's progress. You will have an individualized plan for follow up that

will be coordinated by the UT Medical Center staff in collaboration with the physicians involved in your care.

As always, the UT Medical Center Radiation Therapy team is available to answer any questions you have before, during and after treatment. Call the radiation therapy nurse coordinator at (865) 305-6889 with any questions or concerns.

Billing and Insurance

Insurance verification and approval will be obtained prior to scheduling all SRS/SBRT treatments. This process could take up to 30 business days depending upon your insurance. Patients will receive separate billing statements for their course of treatment from the University of Tennessee Medical Center and from the physicians involved in their care (radiation oncologist, neurosurgeon, radiologists). The hospital statements are for the technical and facility services, and the physician statements are for the professional component of services. The patient's financial responsibility will depend upon his or her individual insurance policy/plan.

For questions regarding your hospital statement, call the University of Tennessee Medical Center, Patient Accounts at (865) 251-4400. **For any billing questions, please call:**

1. For Radiation Medicine Specialists, contact Deborah Broyles at (865) 305-9886
2. For surgeons or neurosurgeons, call the physician's office with billing questions
3. For University Radiologists, contact the business office at (865) 584-7376

Contact the radiation therapy center today for more information: (865) 305-6889