

Spine Radiosurgery

Your doctor has recommended a procedure called stereotactic (steer-ee-oh-TAK-tik) radiosurgery.

Stereotactic radiosurgery uses a computer guided radiation therapy system to aim highly focused beams of radiation directly to areas to be treated. This non-surgical approach relies on a stereotactic linear (LINN-ee-er) accelerator (ak-SELL-eray-ter). This precision instrument delivers high doses of radiation to specific areas.

With this technique, all the radiation is focused directly to the area of the tumor or abnormality. Very little radiation reaches normal structures or tissue. The radiation beams are silent and invisible. You will not be able to feel them as they pass through your skin or bone.

Stereotactic radiosurgery is used to treat both benign and malignant tumors. This procedure is generally used for people who cannot have surgery because of health, previous surgery, or age.

The neurosurgeon, radiation oncologist, and nurse will talk with you about the procedure. Be sure to ask any questions you may have. You will then be asked to sign the consent form for your treatment.

Planning Your Treatment

Your physician may recommend the placement of fiducial (fih-DOO-shul) markers. A fiducial is a small piece of gold or other type of metal sometimes referred to as a seed. It is about the size of a grain of rice. They are implanted into soft tissues in or near the tumor (lesion). The markers help to accurately guide the radiation beams.

Usually, placement of the markers is done as an outpatient procedure in the radiology department. You will be able to return home within an hour or two. Not all spine lesions require fiducial markers.

Your doctor or nurse will let you know if you need this procedure. Your next step will be a CT scan (computerized tomography, also called a CAT scan). This scan allows your radiation oncologist to find the exact location of the tumor to plan the precise treatment.

On this day, you may be asked not to eat or drink anything for 2 hours before the scan if you are to receive a special solution called intravenous contrast dye (IV dye). The dye gives your doctor a clearer picture of the tumor or abnormality. Please check with your nurse to see if you will receive IV dye and if you have any special instructions.

At this appointment, a custom-molded cushion is made for you to lie on during treatment. The cushion will help you stay in the right position for your treatment. It will help to prevent any large movement. The CT scan is done with you in the “cushion.”

The CT images are sent to the radiation planning computer. Your doctor and physicist then develop a custom plan based on information in the computer about your tumor or abnormality. Planning your treatment may take 7 to 10 days.

Scheduling Your Treatment

After a plan has been made, you will be contacted by phone to schedule a date and time for treatment. Radiosurgery is usually done on an outpatient basis. Usually there are no side effects or very few. The treatment can last for 1 to 2 hours. Typically, only 1 treatment is needed.

Wear loose-fitting, comfortable clothes on the day of your treatment. Do not wear any jewelry. Do not use moisturizers on the area to be treated within 2 hours before your treatment.

You do not need to fast from food before the treatment or restrict your normal activities. You may follow a regular diet and take all your prescribed medicines.

If you think that you will be uncomfortable lying on the treatment table, take pain medicine before you arrive that day. On the day of treatment, tell your nurse if you are having pain. We can give you pain medicine before starting the treatment.

You may bring a family member or friend on the day of treatment, but it is not required. He or she will stay in the waiting area during your treatment.

During the Treatment

The therapist will place you on the treatment table in your cushion and then leave the room. You will be alone in the room during treatment. The staff will watch you closely on a monitor and talk with you by microphone.

What to Expect After Treatment

After the treatment is completed, the radiation oncologist will talk with you and your family.

You will return for a follow-up visit 1 month after treatment. Then 3 months after treatment, you will see your doctors and have a PET/CT scan to check response to the treatment.

Side Effects

Stereotactic radiosurgery to the spine has minimal side effects. The most common one is fatigue. Please read the tips below for any side effects you may have.

Fatigue

- Take frequent rest periods and pace your activities.
- Save time for activities you enjoy. Plan them as part of your day.
- Plan a short period of activity, such as a walk each day.
- Inactivity may make you more tired.
- Tell your nurse or doctor if you become extremely tired.

Temporary Skin Changes

You may have temporary changes to your skin in the area that was treated. These changes may include redness, dryness, scaling, and itchiness of the treated area. These skin changes usually occur 1 to 2 days after your treatment and last 1 to 2 weeks after your treatment.

You may use moisturizers such as _____ on the treated area after treatment is completed.

Permanent Skin Changes

- If the treated area is exposed to the sun, apply sunscreen routinely to the area whenever you are outdoors for more than 10 minutes all year round.
- Use a sunscreen that does not contain PABA. It should have an SPF of 30 or more. The treated area will be more sensitive than the rest of your skin. Continue to protect the area from sun exposure after your treatment ends.

Things to Report Immediately

Call immediately if you have any of the following symptoms:

- Back pain, which may move to the side
- Numbness, tingling, or loss of feeling in hands or toes Weakness in legs that may change the way you walk
- Change in bowel or bladder habits, such as constipation or inability to empty your bladder Loss of bowel or bladder control
- Nausea and/or vomiting
- More than 5 watery stools within 24 hours Significant increase in pain.
- Persistent pain
- Temperature of 100.5 F (38 C) or above
- Chills

Things to report to your nurse or doctor

- Skin redness, tenderness, itchiness, or rash
- Any new or unusual symptoms

To report these symptoms, or if you have questions or concerns, call your UPMC Hillman Cancer Center Office at _____.