

Stereotactic Radiosurgery Treatment for the Head and Neck

Your doctor has recommended a procedure called stereotactic radiosurgery (steh-ree-oh-TAK-tik RAY-dee-oh-SUR-ger-ee). Much like standard radiation therapy, this treatment uses a radiation machine called a linear accelerator to administer the treatment. However, stereotactic radiosurgery is administered at higher doses and in fewer treatments than standard radiation therapy.

Radiosurgery is used to treat cancerous and non-cancerous lesions in the head and neck region without having to cut into the skin. Stereotactic radiosurgery works the same as all other forms of radiation treatment. It does not surgically remove the tumor or lesion, but it distorts the DNA of the tumor cells by delivering a single high-dose of precisely-targeted radiation using highly focused gamma-ray or x-ray beams that is focused on the specific area or areas where the tumor or other abnormality resides.

Stereotactic radiosurgery minimizes the amount of radiation to healthy tissue. Although stereotactic radiosurgery is often completed in a one-day session, physicians sometimes recommend multiple treatments, especially for tumors larger than one inch in diameter.

The radiation beams are silent and invisible. You will not feel them as they pass through your body.

Preparing for radiosurgery

You will meet the members of your treatment team before the day of your procedure. The team includes your ear, nose and throat surgeon, radiation oncologist, physicist, a nurse, and a radiation therapist. Before your treatment can be done, you will need some tests. These tests may include blood work, urine testing, MRI (magnetic resonance imaging) and CAT scan (also called a CT scan or PET/CT scan).

The ear, nose and throat surgeon, radiation oncologist, and nurse will talk with you about the treatment and will give you a brochure. Be sure to ask any questions you have. You will then be asked to sign the consent form for your treatment.

Fitting the immobilization device

In order to achieve precision with the treatment it is important to be accurately positioned and carefully immobilized. A mask is made to help hold your head and neck in place during the procedure. The mask is made of soft plastic. It molds to the shape of your head and neck. The mask has holes in it, so you are able to breathe and see through it without difficulty. It takes about 15 to 20 minutes to make the mask. Prior to your treatment, please inform the nurse if you have any feelings of claustrophobia.

You may also be fitted with a bite block during this time. A bite block is similar to a dental mold tray and helps to hold your jaw in place for treatment. Please inform your nurse or physician if you have false teeth or any problems breathing from your nose.

The day of your treatment

You should wear loose-fitting, comfortable clothing for the treatment. Please do not wear any jewelry. Do not use moisturizers within 2 hours before your radiation therapy treatment. You can take all of your regular medicines before your treatment. If you think that you will be uncomfortable lying on the treatment table, please take pain medicine before you arrive that day. The day of your treatment, tell your nurse if you are having pain. We can give you medicine before starting treatment.

A family member or friend should come with you to the hospital on the day of your procedure. He or she will wait in the waiting area while you are receiving your treatment.

During the treatment

You will have to lie flat on a treatment table, which is similar to the table you lie on to have an x-ray.

Each treatment takes about 1 to 2 hours. If you become uncomfortable during the procedure, tell your team. You can take a brief break from the treatment.

The mask that was made for you will be placed on your head. The mask will remain on your head during the entire treatment.

Your treatment team members will go to an outer room to administer your treatment. There are cameras in the treatment room so that the team can see you at all times. There is also a microphone so that they can talk with you throughout the procedure.

After radiosurgery

After the treatment is finished, the mask and bite block will be removed. The doctor will speak with you and your family member. You and your family member will receive instructions for your care. These are sometimes called “discharge instructions.” You will be able to go home immediately.

What to expect after treatment

The nurse will call you within 72 hours (3 days) after your treatment. If you have any questions or concerns, please call the number at the end of this sheet.

You will need a follow-up appointment with the ear, nose and throat surgeon about 1 month after the treatment. Call to make this appointment soon after you get home.

Temporary skin changes

You may have temporary changes to your scalp or neck. 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. Do not use moisturizers within 2 hours before a radiation therapy treatment.

Permanent skin changes

Permanent skin changes include increased sensitivity to hot and cold temperatures.

If the area being treated is exposed to the sun, apply sunscreen routinely to the treated area whenever you are outdoors for more than 10 minutes during the summer and winter. Use a sunscreen that does not contain PABA. It should have an SPF (sun protection factor) of 30 or more. Since the area being treated will be more sensitive than the rest of your skin, continue to protect the area from sun exposure after your treatment ends.

Sore throat or difficulty swallowing

The following side effects may occur when treatment is given to the cervical spine (neck).

- Your throat may become scratchy or sore.
- You may feel as if you have a lump in your throat. Your throat is not closing, even though it may feel that way.

These tips may help:

- Use alcohol-free lozenges, sprays, or other medicines to help numb your throat. These may be very helpful before meals or at bedtime.
- Eat soft foods that are easy to chew and swallow. Use gravy, sauces, and milk to moisten your food. Avoid spicy, salty, rough, dry, or citrus foods if your throat is sore.
- Do not smoke. Smoking can irritate your throat. Avoid smoke-filled rooms and people who smoke. Do not drink alcohol.

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 actually make you more tired. Tell your nurse or doctor if you become extremely tired.

Things to report immediately

Call immediately if you have any of the following symptoms:

- A return or increase in the symptoms that you had before receiving the radiation therapy Increased pain or pain that is not relieved with pain medicine
- Numbness, tingling, or loss of feeling in your arms, legs, hands, and/or feet. Loss of bowel or bladder control (incontinence)

To report these symptoms, or if you have any questions or concerns, call:

_____.

Follow-up

You will need to have a follow-up appointment 1 month after your treatment.