

Stereotactic Radiosurgery A Patient Guide



This handout tells you what to expect before, during and after stereotactic radiosurgery. While reading it, highlight any parts that do not make sense to you. Make a list of any questions you may have. Bring this handout when you come for your clinic visit or your treatment. Your doctor or nurse will go over it with you.

What is stereotactic radiosurgery?

Stereotactic radiosurgery is used to treat many types of lesions or tumors in the brain. This includes: brain tumors, meningiomas, vestibular schwannomas, trigeminal neuralgia and arteriovenous malformations (AVM). High doses of radiation are given to a small area in your brain. In most cases it is done in one treatment. The radiation can be given to the abnormal area while the normal brain tissue around it gets only a

small dose of radiation. Because this treatment is so precise, a special frame is used to keep your head perfectly still.

Before the Procedure

1. Arrange to have someone drive you home after the treatment. Family members or a friend may come and be with you during the day.
2. You will have a special MRI scan done. This is called a stealth MRI. This MRI will be used to plan your radiation treatment. It will feel no different than other MRIs you may have had. If you have never had an MRI, please let your nurse know. You will be given a handout that describes it in detail.

Please let the doctor or nurse know if you have:

- Brain aneurysm clips
- Implanted pumps
- Chemotherapy ports
- Neurostimulators
- A pacemaker
- An artificial heart valve
- A defibrillator
- Eye or ear implants
- Stents, coils or filters
- If you are allergic to IV (intravenous) contrast dye, shellfish or iodine.
- Claustrophobia (fear of being in closed spaces).

3. If you have diabetes and are taking oral medicines or insulin, please let your nurse or doctor know. These medicines may need to be held or adjusted for the treatment.
4. The night before the treatment, do not eat or drink anything after midnight. If you have prescribed oral medicines, take them with a small sip of water only, or as directed.
5. If you are taking aspirin, ibuprofen (Motrin[®]) or warfarin (Coumadin[®]), please let your nurse or doctor know. These medicines may need to be adjusted prior to the radiation treatment.
6. Bring all medicines with you on the day of the procedure.
7. Expect to be at the hospital for about 10 to 14 hours.

The day of the treatment

1. You will change into a hospital gown. A nurse will place a small needle (IV) in your hand or arm to give medicines during the frame placement, if needed. It will also be used for IV contrast dye.
2. A head frame is applied to your head by a neurosurgeon. The frame placement can cause some pain and discomfort. A local anesthetic is used to numb 4 sites on your scalp (2 on the forehead and 2 in the back of your head) before the frame placement. This takes about 15-20 minutes.
3. After the frame is placed, a CT scan is done. This is done to pinpoint the exact place and size of the abnormal area. It is

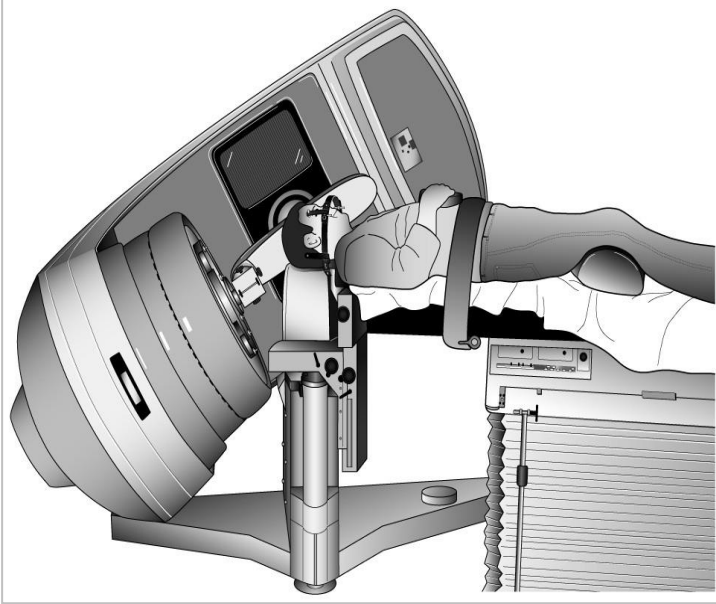
also used for treatment planning. After the CT, you will wait in a comfortable area for the treatment. A television is available for your use.

If you have never had a CT scan, please let the nurse know. You will be given a handout that describes it in detail.

4. After the CT scan, you will be able to eat and drink. Please drink **extra fluids** the day of the procedure (we recommend an extra 1-2 quarts). This will flush the dye from your system. You will be given a meal after the CT scan is done.
5. Your doctors (a neurosurgeon, radiation oncologist and physicists) do treatment planning. This takes about 3 to 4 hours.
6. Late in the afternoon, after the planning is done, you will be brought into the treatment room.

You lie on the treatment table with the frame locked into a special holder. The treatment machine rotates around your head as the radiation is given. This is called an arc. The length of the treatment will vary. It depends on the number of arcs you receive.

Radiation treatments are a lot like having x-rays. You will not be able to see, feel, or hear the radiation. There is no pain or discomfort with the treatment. If you are in pain for other reasons, such as back pain or discomfort from the head frame, please let the doctor or nurse know.



Your doctors, a nurse, a therapist who operates the treatment machine, and the physicist(s) who did the treatment planning will be present during your treatment.

Once you are in place on the treatment table, all staff must leave the room while the machine is on. You will be watched on a television screen. You will be able to talk with the staff through a speaker. You can also wave your hand as a signal that you need help right away. If this happens, the treatment will be stopped and the staff will come into the room to help you.

What are the risks?

Your doctor will talk with you about the short and long-term risks of this treatment. The risks vary from patient to patient. They depend on your diagnosis, the size and location of the lesion, underlying medical problems, the dose of radiation used, and the amount of normal tissue treated. Most of the time, there are few immediate side effects.

The most common side effect can be brain swelling, which is treated with steroids (dexamethasone). Nausea is rare and is controlled with medicine. Seizures are even more rare. They can also be controlled with medicines. In most people, there is little hair loss as a result of the treatment.

There is some concern that, in a very few patients, long-term side effects could occur. At worst, these side effects could include the damage of normal brain tissue leading to the loss of some brain function. This could include changes in vision, speech, or paralysis. Although serious, these side effects are quite rare. A very few patients have severe brain swelling and may need steroids for a long time. These risks will be discussed in detail with you.

After the treatment

You will be taken to an exam room to have the head frame removed. After it is removed, we will clean the pin sites and apply antibiotic ointment to these sites. You will be sent home shortly after that with written instructions.

You will need to have someone to take you home after the procedure. You will not be allowed to drive yourself home.

At home

The day of the procedure and the day afterward, please drink extra fluids to flush the IV contrast from your system

You may have some short-term swelling around both eyes. This is caused by the numbing medicine placed at the pin sites. This begins about 2-3 days after the treatment. It may last from days to weeks. This is normal and should go away by itself.

Starting the day after radiation you can place cold cloths on your eyes to help reduce the swelling. Put the cloths on for about 20 minutes at a time, 3-4 times a day. Continue using the cold cloths for about 4 days after the radiation procedure.

You may have some pain, tenderness or numbness around the pin site areas for up to a few weeks. This is normal and should go away by itself.

You may feel a little tired for a day or two. You can be as active as you wish.

Keep the pin sites clean. You will be given antibiotic ointment. Put it on the pin sites for the first 2-3 days.

You cannot wash your hair for a minimum of 2-3 days after the procedure or until the pin sites have healed.

If you are taking diabetes and/or anti-platelet medicines you will be given special instructions about when they can be resumed.

If you are taking anti-platelet medicines, you may have bleeding from a pin site. If this occurs, place clean gauze on the pin site and hold pressure. If you can't get the bleeding to stop after 5-10 minutes of pressure, call the doctor on call, or go to urgent care or an emergency room.

When to call the doctor

- Increasing or severe headaches that are not relieved by Tylenol®
- Headaches that occur daily or several times a day, even if relieved by Tylenol®
- Headaches associated with nausea and vomiting
- Nausea or vomiting. Any change in strength or sensation (numbness or tingling)
- Clumsiness or difficulty moving a hand or leg
- Vision, hearing or speech changes or difficulties
- Balance or walking difficulties or dizziness
- New onset of confusion
- New seizures or worsening seizures

If you have any questions or problems once home, call the Radiotherapy Clinic at **(608) 263-8500**. If the clinic is closed, your call will be transferred to the hospital answering service. **Ask the operator for the radiotherapy doctor on call.** Give your name and phone number with the area code. The doctor will call you back.

If you live outside of the area, call toll-free by dialing **1-800-323-8942**.

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person's health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright © 11/2017. University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing. HF#5218