Radiosurgery to the Body

This information will help you prepare for your radiosurgery treatment.

Radiosurgery is not actually surgery. It is a treatment that uses high-powered X-rays (radiation beams) to destroy tumors. It uses 3-D planning to shape the radiation dose to the size and shape of the tumor. The treatment machine (linear accelerator) focuses the radiation only on the area being treated. It does not harm normal tissue. Radiosurgery, also called stereotactic body radiation therapy, can be used on tumors anywhere in the body.

The radiosurgery team

The radiosurgery team provides care to meet your needs. The team includes the following clinicians:

- Physicians
  - Radiation oncologist
  - Medical oncologist
  - Surgeon or interventional radiologist (if markers are placed)
- Medical physicist and dosimetrist (help plan treatment with your physician)
- Radiation therapist (gives radiation treatments)
- Registered nurses (provide education and help with follow-up needs)
- Social workers are available, if needed, to help with resources

They also offer support and counseling to you and your family.

The radiosurgery process

Radiosurgery involves:

1. Planning session

- You will have a computed tomography (CT) scan. You care team will use it to locate tumors for treatment and plan where the radiation beams will focus.
- The care team will make a mold of your body with a cushion-like material. The mold will help you stay in position for your planning session and treatment.

Tell your physician if you have trouble lying in one position for long periods of time or keeping your arms raised above your head.
Your care team may use a special dye (contrast) during the planning CT. **Tell your physician if you are allergic to contrast dye or have had a reaction to contrast dye in the past.**

2. Treatment:
   - You will start treatment about 1 to 2 weeks after your planning session.
   - You may need 1 to 5 treatment sessions. The number of sessions you need depends on the area of the body being treated.

Based on the area being treated, you may not be able to eat or drink before the planning or treatment sessions. Your nurse or therapist will tell you if you may eat or drink before these sessions.

**Planning session**

Please arrive at ______________________ (time) on ______________________ (date) for your appointment.

Parking is available for patients and visitors in the garage at 222 East Huron Street, across from Feinberg and Galter pavilions. For a discounted rate, please bring your parking ticket with you. You can get your ticket validated in the Radiation Oncology waiting area.

Please leave valuables at home, including jewelry.

Once you have checked into the Radiation Oncology Department, we will take you to a waiting area. There, you will change into a hospital gown.

If you need contrast dye for the CT scan, a nurse will insert an IV (into the vein) line. They will also draw a blood sample to test your kidney function.

After that, the therapist will take you to the CT scan room.

It is important to stay still during the planning and treatment sessions. Your customized body mold will help you stay in the correct position. While lying in the body mold, we will cover you with a plastic sheet that snugly fits around your body. Your head and face will not be covered.

Once you are secured into the mold, your care team will do the CT scan. This CT session lasts about 1 to 2 hours.

Depending on the area of your body being treated, you may also have these tests:
   - Magnetic resonance imaging (MRI)
- Positron emission tomography (PET)/CT scan
- CT myelogram

You will have these tests either the same day as the planning CT scan or in the next few days. Your physician will tell you if you need further imaging.

Your treatment will start about 1 to 2 weeks after all the tests are done. If you need more than 1 treatment, we will give you a list of treatment times and dates on the day of your first treatment. Most treatments last about 1 hour.

**Treatment**

**Day of treatment**
Before your appointment:
- Take your normal medications as instructed by your physician.

After you check in at the front desk of the Radiation Oncology Department, the therapist will bring you to a waiting area. There, you will change into a hospital gown.

They will then take you to the treatment room. The radiation therapist will help you onto the treatment table. They will position and secure you in the body mold that was made for you.

Because of the radiation, the team must leave the room before the radiosurgery starts. During the procedure, the physician and nurse will monitor you through a camera. You will be able to talk to the staff through a 2-way intercom. You may listen to music if you like. How long the treatment lasts will depend on your treatment plan.

**After treatment**
You may resume your normal activities. It is important to keep all follow-up appointments as instructed.

**Common side effects**
Side effects vary based upon the area that is treated. Your physician will discuss these with you.

**When to call the physician**
If you have a fever of 100.5 degrees F or higher, call the Radiation Oncology Department at 312.926.2520 (TTY: 711).

During evenings, weekends or holidays, this number will forward to the answering service. They will notify the on-call physicians.

Go to the nearest emergency department right away if you have any of the following:
- Chest pain
- Trouble breathing
- Coughing up blood

For more information about Northwestern Medicine, please visit our website at nm.org.
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