

Radiation to the Brain

What you should know

This handout describes the most common side effects from radiation to the brain, what you can do to treat or cope with them, and what symptoms to tell your doctor or nurse about.

What is radiation?

Radiation is used to treat cancer and benign tumors in the brain. Treatments are given Monday through Friday for a prescribed number of days, like a medication regimen. It is important to come in for all your treatments.

Radiation to all or part of the brain may cause general side effects, as well as side effects to the area being treated. Side effects will vary based on what area is being treated and how much radiation you receive.

Your doctor or nurse will tell you which side effects to expect, when they may occur, and what treatments may help. The most common side effects with radiation to the brain are:

- Skin reactions
- Hair loss
- Fatigue
- Nausea and vomiting
- Headaches
- Ear irritation
- Neurological reactions

Skin Reactions

You may develop skin irritation, redness, or itchiness of your scalp or ears while undergoing radiation to the head or brain. Most often, these reactions appear gradually 2 to 3 weeks into your treatment and begin with dry skin. Your nurse will give you some topical gel that adds moisture to your skin.

During radiation treatments:

- Use mild shampoo.
- Do **not** use styling products or sunscreen directly on your scalp.
- Wear a hat or other head covering when you go outside. Stay in the shade as much as you can.

After you are done with radiation treatments:

- Continue to cover your head when you go outside.
- Use sunscreen to protect your skin.
- Your skin in the treatment area may be sensitive to the sun for up to a year.



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Hair Loss

Radiation causes hair loss only in the area that is being treated. Hair begins to fall out 2 weeks after treatment starts. With higher radiation doses, your hair may not grow back. In many cases, hair will begin to grow back 4 to 6 months after radiation is done.

Fatigue

The exact cause of fatigue from radiation therapy is not clear. Coming in for daily treatments and the stress of disease can make fatigue worse.

Fatigue often begins during the first 2 weeks of treatment and becomes more significant during the 3rd and 4th weeks of treatment.

When you start treatment, weekend breaks usually provide enough time to recover. In the 3rd or 4th week of treatment, you might start adjusting your schedule by taking naps, going to bed earlier, or sleeping later.

Keep as normal a schedule as possible. Schedule rest breaks when you need them. Maintaining normal activity and doing mild exercises can help reduce fatigue.

Nausea and Vomiting

You may feel nauseated during radiation treatment. Your doctor may prescribe medicine for you to take 30 to 60 minutes before treatment each day to prevent nausea.

Also, radiation combined with chemotherapy may cause nausea, vomiting, or even loss of appetite. Your doctor might prescribe medicine to prevent or reduce nausea and vomiting. Our clinic dietitian can help you find foods that you can eat.

Headaches and Other Neurological Symptoms

There can be swelling (edema) in the tissues around a tumor after surgery, radiation, or other treatment of the tumor. This swelling can cause headaches. Tell your doctor or nurse if your headaches are worse or different than they were before you started radiation.

Pain medicines may help relieve some headaches. Please tell your nurse or doctor if you have headaches that do not go away with common medicines like acetaminophen (Tylenol) or ibuprofen (Advil), or if you have headaches that are worse than you have had before.

Swelling around a brain tumor can also cause other neurological symptoms. Some of these are:

- Increased numbness or weakness, especially on one side of your body
- Vision problems
- Difficulty speaking normally

Do **NOT** wait to tell your doctor or nurse about severe headaches or neurological symptoms that increase suddenly.

Steroid Medicine to Treat Symptoms

Sometimes a *steroid* medicine (Decadron/dexamethasone) is used to lessen swelling in the area being treated, which will help relieve your symptoms. Your doctor or nurse will talk with you about steroid medicine, if it is recommended.

Steroids are usually given on a short-term basis. They have some common short-term side effects. Some of these are:

- Increased appetite
- Increased urination
- Difficulty sleeping
- Mood changes

Two less common side effects are fluid retention and leg cramps.

Taking Steroid Medicine

- Take Decadron with meals, or with snacks such as milk or crackers. Most patients who are taking Decadron also take medicine to lessen stomach acid and stomach irritation while they are on Decadron.
- Do **not** take Decadron on an empty stomach.
- Do **not** decrease or stop taking Decadron without being told to do so by your doctor.

Your dose of Decadron can be raised or lowered during your radiation treatment to prevent or reduce your symptoms. When you no longer need it, your doses will be tapered over time and then stopped. When Decadron is stopped, the medicine you may be taking to lessen stomach acid can also be stopped.

Ear Irritation

Ear irritation most often occurs when the ear canal is in the treatment field. It might feel like an ear infection, but there is seldom an actual infection. There may be fullness or ringing in your ears. If this bothers you, talk with your doctor or nurse. Our staff will do an ear exam and give you medicines, if needed.

Neurological Reactions

You may already have neurological symptoms because of an existing brain condition – for example, difficulties with vision or speaking, weakness in your arms or legs, or seizures. Your radiation oncologist will talk with you about what to expect during and after radiation.

We expect your symptoms to stabilize or possibly improve during treatment. Tell your doctor or nurse if your neurological symptoms change or worsen in any way.

QUESTIONS?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

Radiation Oncology:

Call 206.598.4100 weekdays from 8 a.m. to 5 p.m.

After hours and on weekends and holidays:

Call 206.598.6190 and ask to page the Radiation Oncology resident on call.