



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.

Radiation is used to treat cancer and benign tumors in the brain. Treatments are given Monday through Friday for a prescribed number of days, similar to a medication regimen. It is important to come in for all of 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 you may 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 conditioner, styling products, or sunscreen.
- 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 may be sensitive to the sun for as long as a year.

Hair Loss

Radiation causes hair loss only in the area that is being treated. Hair begins to fall out 2 weeks after treatment starts. Cutting your hair shorter before treatment may help you adjust to the hair loss you will experience during treatment.

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. The new hair may not be quite the same as the hair that fell out. There can be changes in color and texture.

Fatigue

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

Fatigue often begins in 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.

Fatigue may take 2 to 4 weeks to resolve after radiation is over. Then, 4 to 6 weeks after radiation treatment, there is a small chance that fatigue will return and last 1 to 2 months. This fatigue is related to your body continuing to heal from the radiation. It will go away.

Nausea and Vomiting

Nausea may occur 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 will work for you.

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 to occur. 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.

Questions?

Call 206-598-4100

Your questions are important. Call your doctor or health care provider if you have questions or concerns. UWMC clinic staff are also available to help.

Radiation Oncology:
206-598-4100

After hours and on weekends and holidays, call 206-598-6190 and ask for the Radiation Oncology resident on call to be paged.

Taking Steroid Medicine

- Take Decadron with meals, or with snacks such as milk or crackers. Most patients who are taking Decadron also take a 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 the 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 disease in your brain – for example, difficulties with vision or speaking, weakness in your arms or legs, or seizure activity. 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.

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