

Radiation Therapy to the Brain

This handout offers information on the possible side effects from radiation therapy.

For more information on radiation treatment, see the Canadian Cancer Society's booklet on Radiation Treatment: A Guide for People with Cancer. Go to the Canadian Cancer Society's website at cancer.ca and search for the name of the booklet.

After each radiation treatment, it is safe for you to be around other people (including children) and pets. You are not radioactive.

We offer you and your family member/partner-in-care support during your treatments. We also answer any questions you have.

Side effects from radiation treatment to your brain

Radiation treatment side effects are not the same for everyone. The side-effects you have depends on:

- The part of your body treated,
- The type of radiation you are treated with
- The number of treatments you have and your general health.

Side effects may be caused by other treatments you are having. It is important you keep a healthy weight during your treatments. If you are having problems with this, ask to be referred to a dietitian.

The following information is about the possible side effects.

Headaches

Radiation therapy to your brain may cause swelling in the treatment area. This can lead to headaches. Your radiation oncologist may prescribe medications for you such as steroids. These medications can help reduce the swelling and manage your headaches.

Hair loss

The hair loss you have depends on the total amount of radiation you receive. Your radiation oncologist will tell you what you can expect. For many patients, hair starts to grow back after treatments are finished. When it comes back, your hair may have a different colour and feel different than before treatment. Talk to your healthcare team about what you can do to cope with hair loss.

Nausea and vomiting

Radiation therapy to your brain may cause you to have nausea (feeling sick to your stomach) or vomiting.

What you can do to help:

- Take dimenhydrinate (example: Gravol) before your treatment to help prevent nausea and vomiting.
- Sip small amounts of liquids often during the day.

- Drink 6 to 8 cups (1 cup = 250 ml) of liquid every day. Drink even when you don't feel thirsty. This will help you stay hydrated.
- Drink cool liquids. They may be easier to drink than hot or cold liquids.
- Drink liquids and eat foods at least 30 minutes apart.
- Eat small amounts of food every 2 to 3 hours. Hunger can make feelings of nausea stronger.
- Some patients say that ginger or peppermint make them feel better.
- Ask for a referral to see a dietitian.
- Talk to a member of your healthcare team if you:
 - Are not able to keep any water, food or medications in your stomach.
 - Have nausea that lasts more than 24 hours.
 - Are weak, dizzy or confused.

For more information, read the “How to Manage Your Nausea and Vomiting” booklet found at cancercareontario.ca/en/symptom-management/3131

No energy/feeling tired

Radiation Therapy to your brain may cause you to feel tired. You may find your energy level is low.

What you can do to help:

- Keep your normal sleeping schedule. Wake up at the same time each day.
- A short nap (less than an hour) between 12 pm and 3 pm may give you more energy.
- Reduce your alcohol and caffeine in the afternoon and evening.
- Plan your day with time to rest before and after activities.
- Eat healthy foods. Eat small meals and snacks throughout the day.
- Drink 6 to 8 cups (1 cup = 250 ml) of liquid every day. This will help you stay hydrated.
- Keep active with about 30 minutes of exercise (example: walking) each day. If 30 minutes is too hard, split it up into shorter 5 to 10 minute sessions.

For more information, read the “How to Manage Your Fatigue” booklet found at cancercareontario.ca/en/symptom-management/3991

Skin symptoms

Radiation Therapy to your brain may cause you to have dry, itchy or reddening of the skin in the treatment area. These symptoms are common in areas where there is friction or skin folds. You may have loss of hair in the treatment area.

Caring for your skin in the treatment area

You can:

- Wash your skin gently. Use an unscented soap and lukewarm water. Pat dry.
- Use lanolin free unscented lotions or creams to moisturize your skin.
- Wear soft, loose fitting clothing over areas that are being treated with radiation.
- Use an electric razor and not a disposable shaver to shave any areas within the treatment area.

Do not:

- Do not go swimming if you have any sores or open areas in the treatment area.
- Do not use aftershave or perfume on any area of your skin that is being treated.
- Do not use baby powder or cornstarch on any skin in the treatment area.
- Do not use aloe vera on any skin in the treatment area.
- Do not use a heating pad or ice pack on any skin in the treatment areas. Do not sit in a hot tub.
- Do not use adhesive tape or band-aids in the treatment area.
- Do not allow your skin surfaces to rub together or clothing rub against the skin in the treatment area.
- Do not expose your treatment area to direct sun. Wear a wide brimmed hat and shirts that cover the treatment area and stay in the shade if possible. Do not use sunscreen on your treatment area. After your treatment is finished and your skin has healed (no open areas) you may use sunscreen (SPF 30+).

It is important to let your healthcare team know if you have any signs or symptoms of an infection such as fever, drainage, or odour from a sore or wound on your skin.

Relationships, body image and intimacy symptoms

Radiation therapy can affect your relationships, body image and intimacy. It may change the way you feel about sex. It is also common to have fears and worries that may affect your relationships with others. This can cause changes in your stress level and emotions.

What you can do to help:

- Talk to any member of your healthcare team about your fears and worries.
- Talk to your family and friends about your fears and worries.
- Ask any member of your healthcare team about community programs that can help support you such as Hearth Place, Canadian Cancer Society, and the Look Good Feel Better Program.
- Keep a daily journal throughout your treatment.

For more information read the “Intimacy and Sex For People With Cancer and Their Partners” booklet found at cancercareontario.ca/sites/ccocancercare/files/IntimacyandSex.pdf

Preparing for your treatment

For your first appointment, go to the main reception on B1 level. The clerk will show you how to check in at the computer for the rest of your appointments. Your first day on the treatment unit may take extra time. The radiation therapists will check the treatment plan that was made for you. X-ray images will also be taken. These images will be used to check that your treatment matches your treatment plan. This process will be repeated throughout your treatment.

After your treatments are finished

Side effects from radiation treatment continue for 4 to 6 weeks after your treatments are finished. Some of the side effects may get worse before they get better. At your last treatment appointment, the radiation therapists review any care you need to continue during this time. Make sure you have a follow up appointment booked with your radiation oncologist.

If you have a problem or concern about a symptom or side effect from your cancer treatment:

1. Call your primary nurse at the cancer centre from Monday to Friday, 8:30 am to 4 pm, (except on holidays). Use the phone number your primary nurse gave you.
2. Contact CareChart Digital Health from Monday to Friday, 5 pm to 8:30 am and anytime on weekends and holidays for symptom management support.

Talk to a nurse using one of these options:

- Call the after-hours telephone line at 1-877-681-3057.
- Request a video call by going to www.carechart.ca.
- Use the CareChart Digital Health App. This App is available to download for iOS or Android devices.

Call 911 or go to the emergency department at the hospital closest to you for a medical emergency. Talk to a member of your healthcare team if you have questions or do not understand any information in this handout.

Last reviewed: March 2025