

# What to do when receiving Radiation Therapy to the Brain and Spinal Cord Area (CNS)



UHN

**This pamphlet will give you information about what to expect while receiving radiation therapy for tumours in the brain and the spinal cord area.**

You may reduce the possible side effects of Radiation Therapy by using the following information. Your Radiation Oncologist, Specialized Oncology Nurse and Radiation Therapist will give you, your family and/or friends care, support and information throughout your course of treatment.

Please ask any questions that you may have when you come for treatment each day. Your Radiation Therapists will try to answer your questions or refer you to other members of your health care team. You may also bring your questions to your radiation oncologist or oncology nurse at your weekly review appointment.

## **Planning the Radiation Treatment (level 1B)**

Check in at the reception desk on level 1B, where your photograph will be taken to help us identify you during the course of your treatment.

The Radiation Oncologist and Radiation Therapist will use a CT simulator to determine the area of treatment. A CT simulator is a CT scanner with special computer software that provides the team with detailed, x-ray images of your head and spine area. Sometimes, we also use an MR simulator using magnetic resonance imaging (MRI) to provide more detailed images of the area to be treated.

To keep your head from moving during each treatment, a device that shapes around your head will be made for you at the CT simulation appointment. This device is called a “mask”, and will be used everyday during your treatment to help with your treatment

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set-up. When we determine the area for treatment, the radiation therapists will draw marks on the mask to help keep it in place.

For the spine area, a few small tattoos will be placed on the skin in the stomach area at the CT simulation appointment. The Radiation Therapist will explain this procedure to you.

The CT simulation appointment usually takes about 45 minutes and the MR simulation appointment takes about 1 hour. The doctors, physicists and therapists will continue to work on the information they get during the planning process to develop a plan that is specific to you.

Usually a few days after your CT simulation appointment, the booking staff will call you at home and let you know the date and time of your first radiation therapy appointment.

## **First Day of Treatment (level 2B)**

Go to the level 2B reception desk on your first day of treatment. The staff there will show you how to check in.

The first day on the treatment unit may take about 1 hour. This is because the Radiation Therapist, and other members of the team, will be checking all parts of your treatment plan. The Radiation Therapists will take images like the ones taken at the CT simulation appointment. These images will be used to make sure that your treatment area matches exactly as it was planned. These images will be done each day during your course of treatment.

For the rest of your treatments, you may be in the room for about 45 minutes. Most of this time is for setup and taking images to make sure you are in the right position. Delivering your radiation treatment will take a very short time.

## **Watch for these side effects**

Radiation side effects vary from person to person. These side effects depend on:

- The part of the body being treated
- The type of radiation used
- The amount of radiation given
- A person's general health

Most side effects are temporary and will settle down about 2 to 4 weeks after your last treatment. The following sections will describe possible radiation side effects to the brain (p.2-3) and spinal cord (p.4-6).

## **Radiation treatment to the brain:**

### **Will I get headaches, nausea and vomiting?**

Radiation treatment to the brain may cause swelling in the treatment area. This can lead to headaches and sometimes nausea (upset stomach) and vomiting.

### **What can I do?**

Your doctor will be able to prescribe medications for these symptoms such as steroids, to reduce the swelling and anti nausea medication to reduce nausea.

### **Will my skin get sore?**

The most common change in the area during the first 3 weeks of treatment is a reddening of the skin. Your skin (scalp) may look slightly red or tanned and may feel warm, dry, or itchy.

### **What can I do?**

- Wash with warm water and gently pat dry.
- Avoid rubbing or scratching the area.
- If there is no hair in the affected area:
  - Apply a water-based moisturising cream such as Lubriderm or Glaxal based cream 3 to 4 times everyday. You may use Aloe Vera gel to help to reduce the itching.
  - Do not put on cream or gel right before treatment because the skin must be dry and free of gel before treatment is given.
- Do not expose the area to direct sunlight.
- Wear a hat.
- Wash your hair using a mild shampoo. If you do use a hairdryer, make sure it is on a cool setting.

### **Even though it is uncommon, some patients may have skin breakdown and a wet discharge (oozing) in the treatment area.**

This is most likely to happen at places where two folds of skin come together, such as the crease of your neck or behind the ears. Your skin may swell and become painful. You might notice flaky skin and small blisters.

### **What can I do?**

- Stop using Aloe Vera gel.
- Try Saline soaks. Speak to your Radiation Therapist or Oncology Nurse for information.
- Put on a moisture retentive protective barrier ointment (e.g. silicone based ointments such as Proshield Plus Skin Protectant) after each saline soak.
- Protect the open area by using a dressing if you need to. If you need dressings, your Radiation Therapists can show you to the Radiation Nursing Clinic, where

Registered Nurses will check your skin and give you advice about how to care for it. They will help you with dressings and using any skin care products.

- Wash your hands very well before and after touching the area.
- At your weekly review appointment, your doctor may prescribe medications if necessary.

### **Will I lose my hair?**

Hair loss depends on the total amount of radiation you receive. Your doctor will tell you whether to expect this in your case. In most cases, the hair will start to grow back after treatments are finished. When it does come back, the hair may have a different color and texture than before treatment.

### **What can I do?**

- Cut your hair short.
- Visit the wig boutiques on the 3rd floor for advice on wigs or hats.
- Protect the scalp from sun and cold winds.

### **Watch for these other symptoms:**

If you are on regular codeine based pain medications, you may have constipation. You may need to change your diet or get a prescription for a stool softener or laxative. Talk to your Oncology Nurse or doctor if you are having constipation.

Medications to control swelling, such as Decadron (dexamethasone), may give you heartburn. A change in diet or the use of antacids can give you relief. Talk to your Oncology Nurse or doctor about heartburn.

Sometimes, patients tell us they have a "plugged ear" feeling at the end of their treatments. This is because of swelling around the ear caused by the radiation. This usually goes away by itself but can take several weeks.

## **Radiation treatment to the spinal cord area:**

### **Will my skin get sore?**

You can expect some changes to the skin in the treatment area. The most common change in the area during the first 3 weeks of treatment is a reddening of the skin. Your skin may look slightly red or tanned and may feel warm, dry, or itchy.

**What can I do?**

- Shower or bathe with warm water and gently pat dry.
- Use a mild soap such as Dove or Ivory.
- Avoid rubbing or scratching the area.
- Use a water-based moisturising cream such as Lubriderm or Glaxal based cream 3 to 4 times everyday. You may use Aloe Vera gel to help to reduce the itching.
- Do not put on cream or gel right before treatment because your skin must be dry and free of gel before treatment.
- Do not expose the area to direct sunlight.

**You may have other skin changes, such as**

- Flaking and/or peeling of the skin.

**What can I do?**

- Stop using Aloe Vera gel.
- Continue to use the moisturising cream on the dry areas.

**Will radiation to my spine affect my blood count?**

- Your spine has bone marrow, which makes red and white blood cells and platelets. Radiation to a large part of the spine can lower your blood count.
- You may have a lower white blood count and platelet count during the course of treatment. But, it is rarely enough that you will need to stop treatment.
- You may also have a lower red blood count one month after treatment.
- Your doctor will probably order some routine blood tests to check your blood count during your treatment and after your treatment course is finished.

**Will I get nausea, vomiting or diarrhea from having radiation to my spine?**

- You can expect nausea and vomiting because of irritation of the throat, stomach and bowels.
- Some people may have trouble swallowing, and some people may have symptoms similar to heart burn.
- Radiation may also lead to diarrhea.
- If you have any of these symptoms, please tell one of the therapists or your doctor.
- Your oncologist will prescribe medications for these symptoms.

**What can I do to cope with nausea and vomiting?**

- Take your anti-nausea medication as prescribed by your doctor.
- Eat small, frequent meals throughout the day; nausea may be worse on an empty stomach.
- Use dry, starchy foods such as crackers, melba toast and plain cookies to help settle your stomach.
- Choose cold foods or foods served at room temperature if food smells bother you.

- Sip fluids such as water, diluted fruit juices and flat ginger ale throughout the day. This is very important if you have vomiting.
- If you have diabetes, you may need nutrition counselling. We can make an appointment with a registered dietitian for you.
- For more information, ask your radiation therapist or RN case manager for the “Dealing with Nausea” pamphlet.

### **What can I do to cope with diarrhea?**

- Eat what you normally would until you get diarrhea.
- You may need medication, such as Imodium to control diarrhea.
- A diet low in fibre can help you cope with diarrhea. Avoid foods such as whole grain breads and cereals, dried peas and beans, nuts and seeds.
- Avoid high fat foods, caffeine and spices as they may make diarrhea worse.
- Switch to lactose reduced dairy products if you develop a temporary intolerance to lactose (the natural sugar in milk).
- Sip fluids such as water, diluted fruit juices and caffeine-free soft drinks throughout the day. This is very important in order to avoid dehydration.
- For more information, ask your radiation therapists or oncology nurse for the “Eating Hints For People with Diarrhea” pamphlet.
- We can make an appointment with a registered dietitian for you.

## **Other side effects when having radiation to both the brain and the spine:**

### **Will I get tired while on treatment?**

Fatigue is a common side effect of radiation therapy. It usually starts a few weeks into the treatment. How much fatigue you feel is different from person to person, but usually you will have more fatigue at the end of treatment. Then it improves over 1 or 2 months after treatment. Do your normal activities if you feel well enough.

### **What are some ways that can help me cope with fatigue?**

- Pace yourself, especially with activities that are tiring. Rest as you need to.
- Keep hydrated. Try to drink 6 to 8 glasses (8 ounces) of fluid throughout the day.
- Eat small amounts of food throughout the day. Try to include 3 of the 4 food groups. For example, eat cheese, crackers and ½ an apple.
- Ask for help with your everyday activities that you cannot manage.
- Research has shown that exercise may reduce fatigue or prevent it from getting worse. Exercise may be a 10 to 15 minute walk three times a week if you can handle it.
- Do something you enjoy each day such as a hobby or walking outside.

**What about exercise and other activities?**

You may have to stop doing some regular activities because of fatigue or other physical symptoms related to your disease or treatment. Ask your doctor about driving a vehicle or operating machinery during this time.

**What are some ways that can help me improve my appetite?**

Some patients may lose interest in food while receiving radiation therapy. Chemotherapy and pain medications can also lead to a loss of appetite.

- Eat small, frequent meals throughout the day instead of 3 large meals.
- Have your biggest meal when you feel most hungry.
- Stock up on foods that are ready-to-eat or easy to prepare.
- Light exercise and fresh air may help your appetite.
- We have other pamphlets to help you with you appetite. Please ask your radiation therapists or healthcare team members.
- We can make an appointment with a registered dietitian for you.

*For more resources about nutrition during cancer treatment pick up a copy of the book called "Goes Down Easy: Recipes to help you cope with the challenge of eating during cancer treatment". It is available from the PMH Patient & Family Library.*

**Watch for these other symptoms:**

- Start of headaches
- Increase in the severity of existing headaches
- Severe nausea or vomiting
- Fainting or dizziness or seizures
- Weakness in arms, legs, hands or feet
- Feeling of pins and needles in your hands or feet
- Any sudden changes in bladder or bowel habits

**Talk to your doctor if you have any of these symptoms.**

Having any of these symptoms might mean changing your medication or treatment schedule.

**After your treatment is finished:**

Symptoms from treatment will begin to disappear about 2 to 4 weeks after your last radiation treatment. The skin reaction will slowly disappear and you can begin to go back to your normal skin care routine. You should continue to protect the skin in the treated area from the sun by using a hat or sunscreen.

We will give you a follow up appointment to see your radiation oncologist usually 4 to 6 weeks after your treatment has finished.

**Important Contact numbers:**

Radiation Oncologist: \_\_\_\_\_

Oncology Nurse: \_\_\_\_\_

For more information:

**PMH Patient & Family Library**  
**(416) 946-2000 ext.5383, Main floor**  
**website:** <http://www.uhn.ca/pmh/services/library.asp>  
**e mail address:** [patienteducationpmh@uhn.on.ca](mailto:patienteducationpmh@uhn.on.ca)