CHU de Québec
Université Laval

RADIATION THERAPY INFORMATION GUIDE

Whole-brain radiation therapy

Name of my radiation oncologist: _____

Department phone no.: **418-691-5264**

Consult this document on: **www.chudequebec.ca/Radiotherapie_cerveau**

Introduction

Your health condition requires you to have radiation therapy.
This guide contains information about:

- What radiation therapy is;
- The steps involved in planning your treatments;
- What will happen during your treatments;
- The possible side effects;
- Recommendations during treatments.

The centre

The radiation oncology centre at CHU de Québec-Université Laval is a supraregional centre with a mission to:

- Provide quality treatments;
- Promote research;
- Participate in student training;
- Evaluate new technologies.

You may be asked to participate in research projects during your treatments. You may also be seen by students during your appointments. Students are always closely supervised by a health professional in their field.

Your team

- The **radiation oncologist** (your doctor) will meet you for a consultation. After reviewing your file, speaking to you and examining you, the doctor will decide whether you are a candidate for radiation therapy. He will oversee every step of your treatment.
- The **nurse** will be involved in assessing your physical and mental condition and will manage your symptoms during your treatments.
- **Radiation therapists** will be there to support you during your radiation therapy treatments (from preparation to administration).
- Depending on your condition, you may need to see other team members before or during your radiation therapy treatments, including a **social worker, psychologist** or **pivot nurse**.

What is radiation therapy?

Radiation therapy is a treatment that uses high energy x-rays or electrons to treat tumours (benign or malignant).

A machine called a linear accelerator is placed near your body. This machine gives a predetermined dose of radiation at your entire brain. It can be moved in different directions.

Your treatment team checks the machines daily to make sure they're accurate and working properly.

The goal of the treatment is to destroy the cancer cells, while protecting the surrounding healthy tissue as much as possible.

Radiation therapy is painless, odourless and invisible. As soon as the treatment is over, the machine stops releasing radiation. You will not become radioactive after your treatments, and there is no danger to anyone around you.

Radiation therapy and other treatments

For some types of tumours, radiation therapy is used on its own. In other cases, it is used in combination with surgery and/or chemotherapy.

The treatment choice is based on accepted practices and a joint decision between you and your doctors.

First visit

Review of your medical file

In most cases, you will not have any treatment at your first radiation oncology visit. Your radiation oncologist will review your medical file and examine you, after which they will prescribe the appropriate treatment.

It's important to know that other steps need to be taken before your first treatment, which explains the delay between your first appointment and your first treatment.

At this visit, it's important to tell your doctor if you have an implantable electronic or other medical device (e.g., pacemaker, insulin pump, hearing aid). To avoid malfunction, manufacturers recommend removing some of these devices during pre-treatment examinations or treatments.

Second visit

Planning your treatment

These steps take anywhere from 40 to 75 minutes.

1. **Molding**

   The radiation therapists will help you find the most comfortable position for your treatments. This is the same position that will be used for all your treatments. Therefore, it's important to mention any discomfort or pain. A mask will be made to hold your head and neck still. This is needed to ensure the quality of your treatments. If you have a beard, you will need to shave it before the mask is made.

2. **CT scan**

   A CT scan will be done to pinpoint the area to be treated. It will give measurements to decide the best way to administer the radiation needed to treat you.

   Marking

   Marks will be drawn on your skin and on your mask. They will be used as landmarks by the radiation therapists during your treatments. Don't worry, the marks are often bigger than the area to be treated.

   - **The red markings** are temporary. You will need to keep them on throughout your treatments. Do not remove them, as they are needed to ensure accuracy.

     A few tips:
     - When washing, do not place your marks directly under the running water.
     - Pat yourself dry with a towel. Do not rub the skin.
     - The ink will stain clothing.

     If the marks look like they're fading, call the radiation oncology department. We will tell you what to do.

3. **MRI**

   A MRI can be done to help us locate the area to be treated.
   You must lie completely still during the MRI.

4. **Pre-treatment waiting period**

   After the CT scan, there will be a delay while the team plans your treatment. The radiation therapists will let you know how long this will take. It may take longer if your doctor is waiting for test results. In all cases, we will adhere to the standards set by the Ministère de la Santé et des Services sociaux.

   You will be notified by phone of the date and time of your first treatment. Treatments can begin any day of the week.

Treatments

Number of treatments required

The number of radiation therapy treatments depends on the assessment of your health condition and your file. This number is not a reflection of the seriousness of your cancer.

Treatments are usually given daily, five days a week, from Monday to Friday. They last from 1 to 3 weeks, depending on the type of cancer.

Your machine may be out of commission one day or two for maintenance. In that case, you will be notified a few days in advance.

You will meet other patients during your visits, but it's important to remember that your treatments are personalized and tailored to your individual needs.

During the treatment

You will always be greeted by radiation therapists. They are familiar with your treatment plan. They will take the time to answer your questions.

Based on the marks on your skin and on your mask, you will be lined up under the machine in the proper position.

For accuracy reasons, it's important to lie very still during the treatments. However, you can breathe normally.

The radiation therapists will leave the room while the machine is running. They will be in an adjacent control room watching you on a screen. They can hear everything you say and speak to you over an intercom.

The radiation lasts only a few minutes. However, it takes about 20 minutes to get set up.

Verification images are taken at each treatment to check your position. They are not meant to see how your tumour is responding to treatment.

Side effects

Radiation therapy is a treatment that can affect normal tissue and cause side effects.

The side effects of radiation therapy can also be affected by chemotherapy and/or surgery. However, the effects of these other treatments will not be discussed here.

These side effects don't always happen. Their seriousness depends on the person, the type of disease, the dose of radiation, and the area treated.

Here is a list of possible side effects and when they tend to appear

After the first treatment and a few days after

Most of these side effects are temporary and disappear within a few weeks after the radiation therapy.

Most common side effects

- Fatigue
- Headache
- Heartburn (nausea)
- Decreased appetite
- Recurrence or worsening of the initial symptoms that led you to consult
- Temporary hair loss (regrowth may be sparser in some areas)
- Redness of the skin (scalp) in the treated area
- Sensation of blocked ears
- Metallic taste in the mouth

*In the **months/years following** treatment*

- Persistent fatigue for several months after radiation therapy. In rare cases, it can be permanent.
- Risk of mild-to-moderate decrease in attention, concentration and memory. In most cases, this does not interfere with daily activities.

418 691-5264

Rarely, other side effects may occur that we cannot predict.

However, if you develop side effects that are causing discomfort, ***feel free to contact us****.*

Medical follow-up

During your treatments, your radiation oncologist will meet with you about once a week. No appointments are necessary. A schedule is posted in the waiting room each week indicating the day your radiation oncologist will see you. This schedule will be explained at your first treatment.

Recommendations during treatments

General advice

- Tell the radiation therapists, the nurse or the radiation oncologist if you develop any side effects.
- Make sure you get plenty of rest but still stay active.
- Ask your radiation oncologist if you have any driving restrictions.
- **If you have the potential to get pregnant, use an effective method of birth control during your treatments.**

Hygiene and skin care

- Use a mild shampoo during the treatments.
- As needed, apply a fragrance-free moisturizer to the scalp at least once a day if you experience dryness or irritation.

Sun exposure

- If your hair falls out, protect your scalp with a hat or sunscreen.

Notes

Notes

CHU de Québec Université Laval

Radio-oncologie

This guide contains recommendations consistent with the scientific information available at the time of publication in september 2023. However, these recommendations are no replacement for medical advice. If you have and questions, please speak to your health provider.

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