



RADIATION THERAPY INFORMATION GUIDE

Stereotactic body radiation therapy (SBRT)
for spinal metastasis

Name of my radiation oncologist: _____

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

Consult this document on: www.chudequebec.ca/Radiotherapie_sbirt_vertebre

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 visits. 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 **nutritionist, social worker, psychologist or pivot nurse**.

What is stereotactic body radiation therapy?

Radiation therapy is a treatment that uses high energy x-rays 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 the part of the body where the tumour is located. 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.

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.

Stereotactic body radiation therapy and other treatments

Stereotactic body radiation therapy is a modern radiation therapy technique that aims powerful doses of radiation at the vertebra affected by the cancer. It can be used alone or after surgery. The treatment choice is based on accepted practices and a joint decision between you and your doctors.



First visit

Review of your medical file

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 he 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 about 3 to 4 hours.

Some accessories may be used to help you stay in this position.



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.

This is needed to ensure the quality of your treatments. To make sure you stay still, we will either make a cushion molded to your body (with or without plastic sheet) or a mask for your neck and upper body.

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.

You must lie completely still during the CT scan.

Your doctor may order a CT scan with contrast (iodine injection). If so, you'll be given the instructions for this test.

Marks will be drawn on your skin. 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.

There are two types of marks: **tattoos** and **red ink markings**.

- **The tattoos** are permanent, so there's no risk of them being washed off.
- **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.
 - 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.



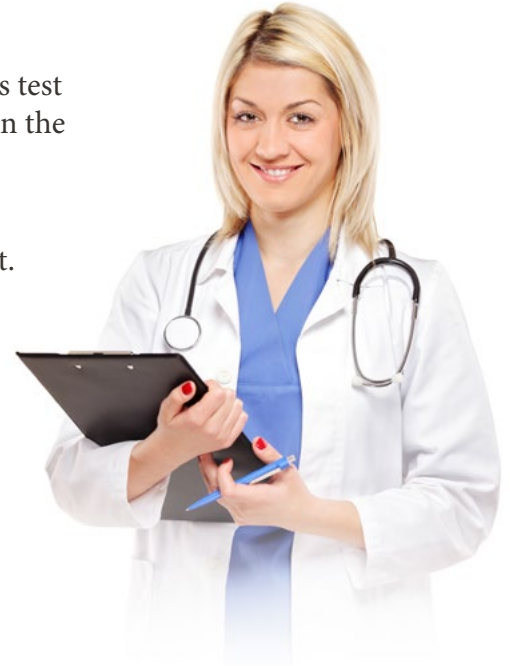
3. Magnetic resonance imaging (MRI)

Even if you've already had an MRI of the spine, we may need to repeat this test to get a more accurate picture of the area to be treated. If so, you'll be given the instructions for this test.

4. Pre-treatment waiting period

After the CT scan, you'll need to wait 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

Treatments are usually given over a short period of time (e.g., 2 or 5 treatments), daily, from Monday to Friday. 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, 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 45 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.



It is *very important* that you come to all your appointments. If you can't make it, please let us know as soon as possible.



Side effects

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

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 :

During treatment and in the weeks that follow

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

Most common side effects:

- Fatigue
- Pain: After the first treatment and for up to 10 days after the end of the treatments, your pain may worsen. This usually lasts for 2 to 5 days. Your radiation oncologist may have prescribed a medication to take before the radiation therapy to prevent this. You can also take your regular pain medication and/or acetaminophen. If this is not enough, call your radiation oncologist.

Less common side effects that can vary depending on the treated area:

- Skin redness in the treated area
- Cough and increased bronchial secretions
- Pain during swallowing (saliva or food)
- Pain or burning in the esophagus and/or stomach
- Decreased appetite
- Nausea, vomiting
- Diarrhea

In the months/years following treatment

Less common side effects:

- Vertebral crush fracture
- Pain or discomfort in the treated area
- Rib fracture near the treated vertebra

Rare but serious side effects:

- Permanent damage to the nerves in an arm or a leg that can cause:
 - Abnormal or painful sensations, numbness
 - Muscle weakness
 - Difficulty walking

Very rare but serious side effects

(< 1 in 1,000 patients: 0.1%):

- Permanent damage to the spinal cord that can cause:
 - Abnormal or painful sensations, numbness
 - Muscle weakness
 - Difficulty walking
 - Urinary and fecal incontinence
 - Paralysis



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, the radiation oncologist will meet with you at a time indicated by the radiation therapists. No appointments are necessary. A schedule is posted in the waiting room each week indicating the day your radiation oncologist will see you.

Recommendations during treatments

General advice



- Tell the radiation therapist, the nurse or the radiation oncologist if you develop any side effects.
- Make sure you get plenty of rest but still stay active.
- It's important to maintain your weight.
- Apply a fragrance-free moisturizer at least once a day to the treated area.
- **If you have the potential to get pregnant, use an effective method of birth control during your treatments.**

Tips for sun exposure and swimming




- Do not expose the treated area to the sun during treatments. After the treatments, you should use sunscreen to protect your skin if exposing it to the sun.
- Swimming: If your skin is not irritated/red, you can go swimming. **Make sure your markings don't come off.** If your skin is irritated, you can still go in the water, but don't get the treated area wet.
- Spa: Not recommended during treatments and within two weeks after treatments or until skin irritation has resolved.



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. This document may not be reproduced, in whole or in part, without written authorization from the CHU de Québec-Université Laval.

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