



# RADIATION THERAPY INFORMATION GUIDE

Permanent implants brachytherapy  
for prostate cancer

Name of my radiation oncologist: \_\_\_\_\_

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

Consult this document on: **[www.chudequebec.ca/Curietherapie\\_implants](http://www.chudequebec.ca/Curietherapie_implants)**

# Introduction

Your health condition requires you to have brachytherapy.

This guide contains information about:

- what brachytherapy is;
- the steps involved in planning your treatments;
- what will happen during your treatments;
- the possible side effects;
- recommendations during and after the 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 brachytherapy. 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 brachytherapy treatments (from preparation to administration).
- **Medical physicists** will calculate your brachytherapy dose.
- Depending on your condition, you may need to see other team members before or after your brachytherapy treatment, including a **nutritionist**, **social worker**, **psychologist** or **pivot nurse**.

## What is brachytherapy?

Brachytherapy is a procedure that involves placing a high dose of radiation directly into the tumour to preserve as much of the surrounding normal tissue as possible. The objective is to maximise the control of the disease with minimal side effects.

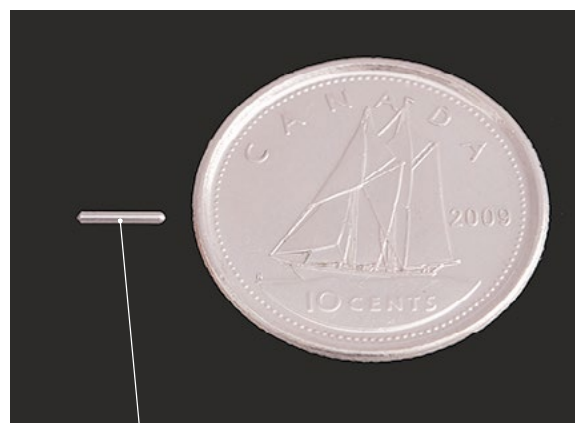
Several radioactive sources of iodine-125 are placed directly into the prostate. These sources release a very low dose of radiation. Most of the radiation is contained within the prostate; only a small fraction escapes the body. If you follow the instructions in this guide, there is no risk to others around you.

Once implanted in the prostate, the sources of iodine-125 are not removed. They stay in the prostate for the rest of your life. However, they stop being radioactive after one year.

**Your bodily fluids (urine, feces, semen, sweat and saliva) and the objects you touch will not become radioactive.**

The outer capsule of the radioactive source is made of titanium, so there is no danger if you are allergic to iodine. The sources are not detected by metal detectors.

However, the radioactivity emitted by these items could be detected by radiation detectors. A card will be issued to you for this purpose.



*Radioactive source*

## 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 they will prescribe the appropriate 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.

# Treatments

## Pre-treatment steps

- In the weeks leading up to the procedure, you will be contacted by the preoperative program team to schedule any tests that need to be completed and review the instructions you must follow before the procedure. You may need to see other specialists before your treatment.
- A brachytherapy nurse will contact you to review the documents received during the consultation and the instructions to follow before the brachytherapy procedure.
- A magnetic resonance imaging (MRI) scan may be performed a few weeks before treatment in order to plan the brachytherapy treatments.
- Seven days before the procedure, begin taking Flomax to reduce the risk of urinary blockage.



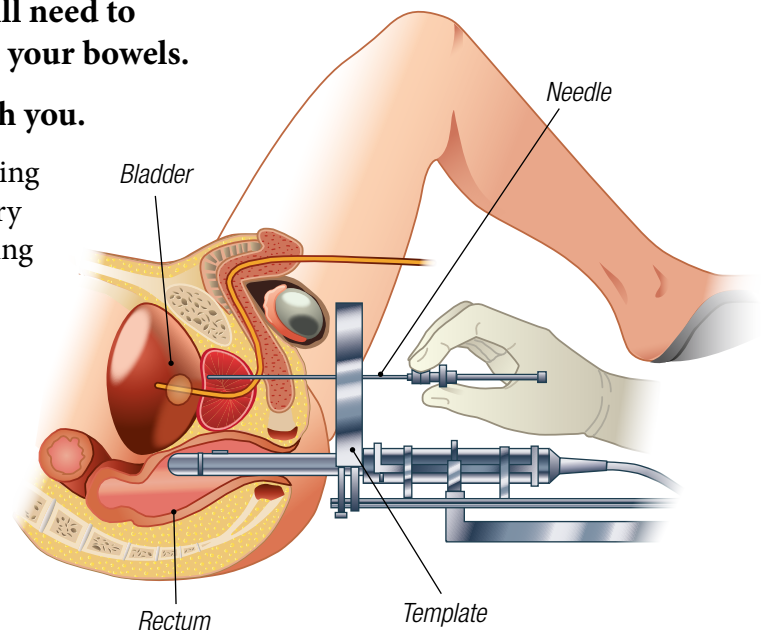
## What will happen on treatment day



**Plan to spend the entire day at the hospital. At home, 1.5 hours before your appointment, you will need to perform two intrarectal enemas to prepare your bowels.**

**You will need someone to return home with you.**

- A urinary catheter will be inserted at the beginning of the procedure. After the procedure, the urinary catheter will be removed or left in place depending on the nurse's assessment.
- The radioactive sources are placed under general anesthesia.
- The needles containing the radioactive sources are inserted into the prostate through the perineum (space between the scrotum and the anus). The sources are then released into the prostate, and the needles are removed.
- The number and locations of the sources will vary depending on the shape and size of your prostate.
- Once you have recovered from the anesthesia and urinated, you can leave the hospital.





## Side effects

Brachytherapy 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

#### *Immediately and in the weeks following brachytherapy*

##### **Most common side effects**

- Blood in the urine and/or semen
- Bruising on the testicles and penis
- More frequent urination with or without burning
- More frequent urination at night

##### **Rare side effects**

(≤ 5 in 100 patients: ≤ 5%)

- Complete urinary tract obstruction requiring a urinary catheter
- Urinary tract/prostate infection
- Anal irritation with loose stools and/or blood in the stools

#### *In the months or years following brachytherapy*

##### **Possible side effects**

- Impotence
- More frequent urination
- Decreased urinary stream
- Change in bowel habits

##### **Less common side effects**

(≤ 5 in 100 patients: ≤ 5%)

- Blood in the urine
- Blood in the stools

##### **Rare side effects**

- Narrowing of the urethra (leading to decreased urinary stream or urinary tract obstruction)
- Persistent urinary tract obstruction requiring a urinary catheter

##### **Very rare side effects**

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

- Risk of a second, radiation-induced cancer
- Opening (fistula) between the urethra and the rectum



**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

About 1 month after the procedure, you will meet with your radiation oncologist. During this visit, you will:

- have radiology tests to calculate the dose of radiation received by the prostate;
- have a chest exam to make sure no sources have traveled to the lungs. **There is no risk if this happens. However, this information must be noted in your file.**

## Recommendations following treatments

### *General advice*



- You must not be alone for 24 hours after your treatment.
- The sedation may cause difficulty concentrating. It's recommended you avoid driving and operating machinery for 24 hours.
- Once you're back at home, you can gradually resume your normal activities (eating when you're hungry and taking your usual medications), unless your doctor says otherwise.
- You will need to drink 1.5 to 2 litres (6 to 8 cups) of water per day for the next few days.
- Avoid alcohol for 48 hours after your treatment.
- Avoid contact sports and intense physical activity. Avoid lifting heavy weights (over 20 lb.) for at least 1 week after your treatment.
- You may take a bath or shower the day after the procedure.
- Remember to take the prescribed antibiotic the day after the procedure, at the specified time.
- If you feel pain, you can take Tylenol (or another pain reliever, as prescribed by your radiation oncologist).
- You may notice blood in your urine for a few days after the treatment. If you're worried, you can call us during business hours or go to the nearest Emergency department.
- The urinary catheter will be removed when the risk of urinary blockage is virtually zero. You may be discharged home with the urinary catheter still in place. In this case, an appointment will be scheduled for the following morning to have it removed.
- If you have a urinary tract obstruction or notice blood clots or large amounts of blood in your urine, go to the nearest Emergency department and tell them you had brachytherapy on your prostate.
- If you develop a fever in the week after your treatment, call us or go to the nearest Emergency department and tell them you had brachytherapy on your prostate.

### *Smoking*



- You should abstain from smoking during your treatments and quit permanently afterwards. Support is available at [www.tobaccofreequebec.ca/iquitnow](http://www.tobaccofreequebec.ca/iquitnow) or by calling 1-866-JARRETE (1-866-527-7383). You can also talk to your doctor or pharmacist about other resources to help you quit.

## *Radiation safety advice for you and your loved ones*



- **For the first 2 weeks** after the sources are inserted, there is a very low risk of losing them during urination or sexual intercourse:
  - You must wear a condom during intercourse for the first five times you ejaculate.
  - It's best to urinate sitting down.
  - If you lose a radioactive source, flush it down the toilet (watch carefully to make sure it goes down). Never handle a radioactive source with your hands. Always use an object such as a spoon or tongs.
- **For the first 2 months** after the sources are inserted:
  - Avoid prolonged contact close to your pelvis with children and pregnant women (e.g., a child sitting on your lap).
  - Avoid passive anal intercourse.
  - It's safe to sleep in the same bed as your partner.
- For the first year after the sources are inserted:
  - You will be given a card stating that you have radioactive implants in your body. You must carry this card with you at all times, as it will let health professionals know about your condition. It can also be helpful to security staff in the event radiation is detected in a public place like an airport or the subway system.
  - If you die less than one year after having the radioactive implants inserted, the funeral home must be informed of the presence of these sources. Cremation is not recommended in the first year. However, if you choose to be cremated, the funeral home must contact the radiation oncology department for instructions from a medical physicist.

Centre intégré de cancérologie – Hôpital de l'Enfant-Jésus	
Patient _____	
<b>CAUTION</b>	
Person with radioactive implants	No danger of contamination
For information: 418-525-4444	
Ask for the radiation oncologist or medical physicist on call	
Signature _____	Date _____
This notice is not valid after _____	



***There is no danger to pets.  
There is no danger to your colleagues.  
You can still have an MRI.***

## Notes

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## Notes

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



## 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 any questions, please speak to your health provider.

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