

# Treating prostate cancer with low-dose-rate brachytherapy



You'll soon be starting low-dose-rate brachytherapy to treat a prostate cancer. Here's what you need to know about the treatment and what to expect.

## What is brachytherapy?

Brachytherapy is a form of radiation therapy. It uses radiation to destroy cancer cells and prevent them from growing.

The device used for external radiotherapy stands outside the body, whereas brachytherapy uses a device that's implanted directly into the prostate, and which steadily releases radiations.

This means that radiations do not cross the skin or travel through other healthy organs to reach cancer cells. Therefore brachytherapy causes less secondary damage to nearby organs.

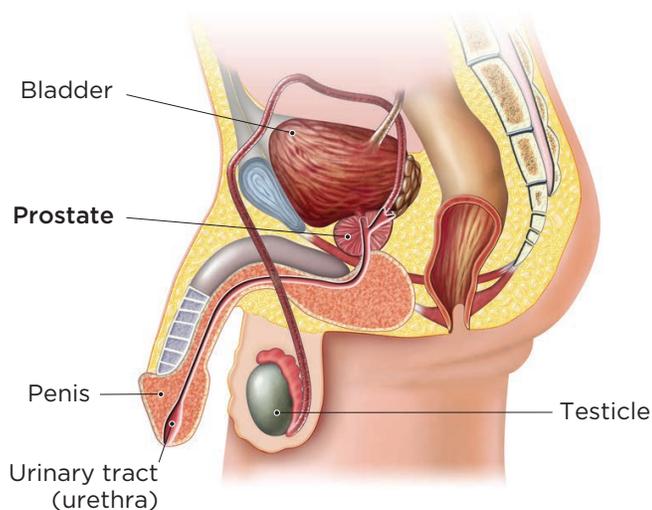
## What is low-dose-rate brachytherapy?

**Low-dose-rate** brachytherapy (often called LDR for short) uses low-energy level radiation. Radiations are released through tiny radioactive seeds that contain "iodine-125", radioactive iodine.



A radioactive seed used in brachytherapy treatment.

## Prostate and nearby organs



The seeds look like grains of rice. They will remain in your prostate; however, the level of radioactivity will diminish over time. After 6 months, 95% of the radioactivity will have vanished. The presence of the seeds does not cause any long-term problems.

There is also a high-dose-rate form of brachytherapy. In that case, a high dose of radiation is inserted into the prostate for about 20 minutes.

## Why would I receive one treatment rather than the other?

There are several ways to treat prostate cancer. Your doctor will suggest various treatments depending on the extent of the cancer, among other factors. Your doctor will also discuss the side effects with you.

Together, you will choose the most appropriate treatment, based on the advantages and disadvantages that matter most to you.



## Could this treatment have long-term consequences?

You may feel the urge to urinate more often. You may also notice that your urine stream is weaker, or have a slight burning feeling when you urinate. This is a sign of inflammation of the bladder and urethra, the tube through which urine flows. There is also a lower risk of rectal inflammation.

Erections may lose strength, while ejaculations may be drier, but that should not affect your pleasure.

These effects really depend on how you were before the procedure. A person who already had potent erections and few urinary problems is less at risk.

## How should I prepare BEFORE the treatment?

### > Several weeks before the treatment

You may be asked to come in to the preoperative clinic. You would then have various tests to complete your health profile. One week ahead, start taking the medication (Flomax or Tamsulosine) your doctor prescribed to help you urinate.

### > The night before the treatment

Give yourself a “Fleet” rectal enema at home, as explained to you.



**You should not drink or eat after midnight. If you need to take medication, you can swallow it with a small sip of water.**

### The day of the treatment, bring to the hospital

- All the medications you usually take, in their original containers.
- A loose pair of underwear. You'll be more comfortable upon returning home.

## How long does the treatment last?

You will stay in the treatment room for approximately 1 hour to 90 minutes. Normally you should be leaving the hospital during the evening.



Make sure you have someone with you, because you won't be able to drive.

## What's the procedure for the treatment?

- > It is generally performed under local anesthesia. Your lower body will be numbed, but you'll still be conscious. However, some patients do need to be put to sleep.
- > You will be given an antibiotic to prevent infection.

- > An ultrasound probe will be used to see the prostate clearly and implant the radioactive seeds correctly. The probe is a tube inserted through the rectum to get clear images of the prostate. The seeds are contained into needles, which are used to insert them in the prostate through the perineum (the area between the testicles and the anus). Between 40 to 60 seeds can be placed with a very high degree of precision.
- > No cuts are made. When the needles are withdrawn, the skin heals instantly, as when you have a blood sample taken.
- > Normally, you'll leave the hospital during the evening.



With detailed images of the prostate, radioactive seeds can be inserted with a high degree of precision.

## What precautions should I take **AFTER** the treatment?

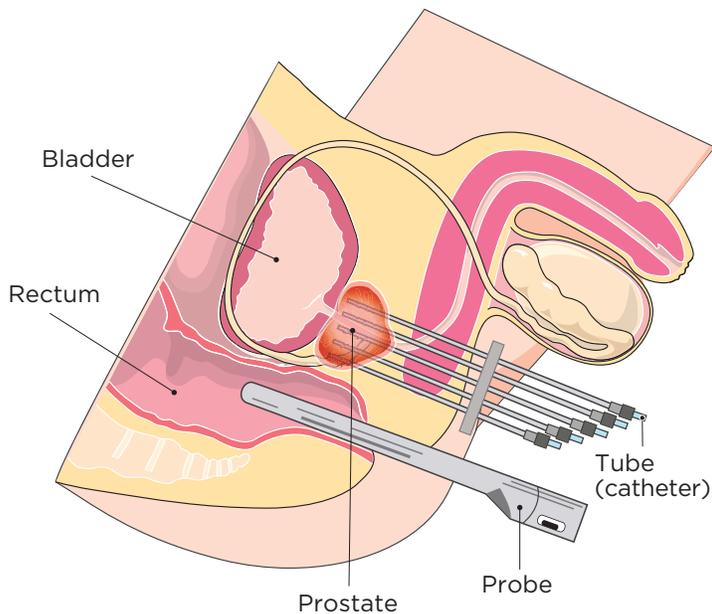
With low-dose-rate brachytherapy, the convalescence period is quite short. You can resume your regular activities and start playing some sports again in the first few days following the procedure.

However, once back at home, **avoid anything that involves strenuous efforts**. That means no cycling, working out at the gym or moving boxes! Avoid strenuous physical efforts for at least 2 weeks.

Since you have radioactive sources inside your body, you do need to take certain precautions. For example, for about 3 or 4 months you shouldn't hold a child on your lap for longer than 5 to 10 minutes. However, there is no reason why you can't sleep in the same bed as your spouse. Your doctor will give you more details after your procedure.

You will be given another document about precautions to be taken, which contains further information on contraception and sexuality.

### Brachytherapy



The tubes are inserted directly in the prostate to administer the treatment.

## Could I feel some discomfort after the treatment?

You may experience one or more of the following side effects:

- > A bruise may appear on your testicles or penis right after the treatment or a few days later. This is normal and generally not painful.
- > You may see blood in your urine for a few hours or a few days after the treatment. This is normal. If you see small clots of blood in your urine, drink a lot of water (1 to 2 litres per day). It should pass.
- > For the first month after your treatment, you may need to urinate more often. You may also have a slight burning sensation while urinating. If this occurs, tell your doctor. There is medication that can help you.
- > Bowel movements may hurt a little if your anus is irritated. Some people also have diarrhea. These effects, which are less common, disappear about 5 weeks after the treatment. They may reappear from time to time.

**If you're unable to urinate**, call your contact at the radiation oncology department. After hours, call **9-1-1** for emergency assistance or go to the emergency room at the hospital.

## When will I see my doctor again?

You'll see your doctor 1 month after the procedure. You'll be sent for an X-ray and a scan of your prostate. These tests will confirm that the radioactive seeds are well in place.

After that you'll see your doctor and your urologist alternately, every 4 months and then every 6 months for at least 5 years.

## Who should I notify if I can't show up at my appointment?

Call the radiation oncology department as early as possible:

Tel. : .....

## Who should I ask for help or answers to my questions?

If you have questions or concerns:

- on weekdays, call the radiation oncology department and ask to speak to your clinical contact.
- in the evening or on weekends, call the hospital directly and ask to speak to the radiation oncologist on call.



### USEFUL RESOURCES

Other health sheets published by the CHUM are available (in French only). Ask for those that might fit your situation.



You can also find them on our web site [chumontreal.qc.ca/votresante](http://chumontreal.qc.ca/votresante)

*The content of this document in no way replaces the recommendations and diagnoses made, or the treatment suggested by your health professional.*

To find out more about the Centre hospitalier de l'Université de Montréal  
[chumontreal.qc.ca](http://chumontreal.qc.ca)