

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.

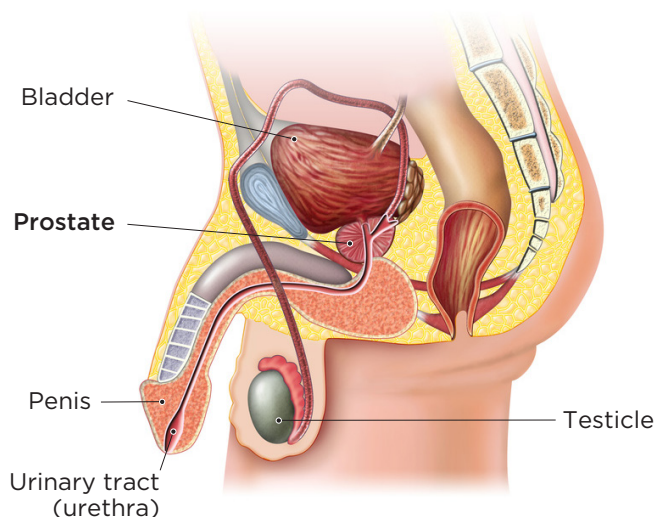
What is brachytherapy?

Brachytherapy is a form of radiation therapy. It consists of sending a radioactive source into your prostate. The radiation emitted causes damage to the cancer cells.

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.

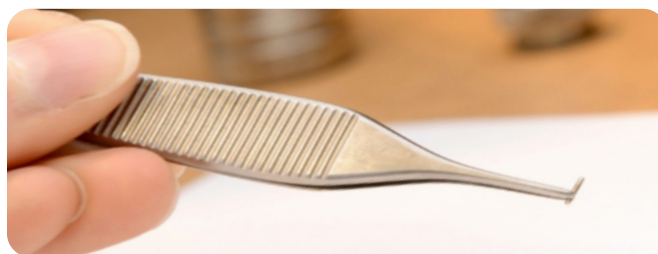
This means that radiations do not cross the skin or travel through other healthy organs to reach cancer cells. Therefore brachytherapy causes less secondary damage to nearby organs.

Prostate and nearby organs



What is low-dose-rate brachytherapy?

Low-dose-rate brachytherapy, often referred to as LDR brachytherapy, emits very low levels of radiation from small sources containing radioactive iodine, called "iodine 125".



A radioactive source used in brachytherapy treatment.

The sources 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 sources does not cause any long-term problems.

There is also high-dose-rate form of brachytherapy. In that form, a radioactive source emits very strong radiation 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 low risk of rectal inflammation.

Erections may also lose strength. Ejaculations may become drier, but that should not affect 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 will have an appointment at the CHUM for a health assessment and, if necessary, at the pre-admission clinic.

One week ahead, start taking the medication (Flomax or Tamsulosine) your doctor prescribed to help you urinate.

Your doctor may also ask you to stop certain medications.

> The night before the treatment

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



You must not eat after midnight the night before your treatment. You can drink a clear liquid (e.g. apple juice, cranberry juice, iced tea) between midnight and one hour before your appointment, 500 ml (2 cups) maximum.

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?

Plan on a full day. Normally, you'll leave the hospital by the end of the afternoon.

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

What's the procedure for the treatment?

- > Important! Tell your doctor if you have any have a particular health condition (e.g. pacemaker, insulin pump, hearing aid). To avoid breakage, some devices must be removed for preparatory exams or treatments.
- > 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 won't feel any pain during the procedure. After the procedure, the pain is very slight.
- > An antibiotic is given to you in the operating room. This reduces the risk of infection.
- > To see the prostate well and install the radioactive sources properly, a rectal probe is used that provides clear images of the prostate. Needles containing the sources are used to insert them into the prostate. The needles are introduced through the perineum (the area between the testicles and the anus). The sources (between 40 and 60) are positioned very precisely.
- > No cuts are made. When the needles are withdrawn, the skin heals instantly, as when you have a blood sample taken.



With detailed images of the prostate, radioactive sources 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.

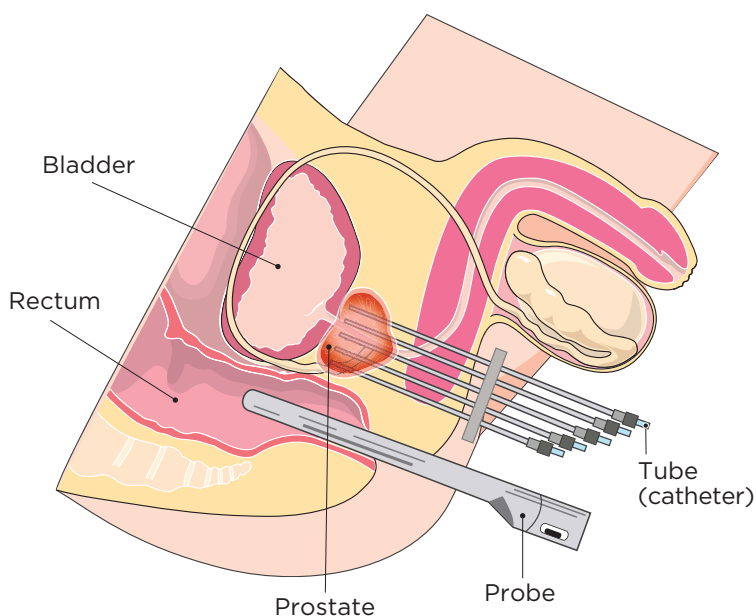
However, once you're back home, **don't do any strenuous activity**. No cycling, no gym workouts, no moving boxes! Avoid intense physical effort for 2 weeks.

You must not drink alcohol for 24 hours after the treatment.

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 small tubes deposit the radioactive sources in the prostate.

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 have blood in your urine a few hours or a few days after treatment. Don't worry; this happens sometimes. You'll need to drink 1 to 2 liters of water a day to prevent the formation of blood clots in the bladder. Do this until your urine is clear again. If it continues, contact your clinical care provider.
- > 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 these effects continue, tell your doctor.

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 brachytherapy treatment. Imaging tests will be done on the day of this appointment. These images are used to check that the seeds are properly positioned in your prostate.

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. Ask for those that might fit your situation.



You can also find them on our website
chumontreal.qc.ca/fiches-sante

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