

Pelvic Needle Implant Brachytherapy

Treatment for Pelvic Cancers



Radiation Treatment



Cancer Control Alberta

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Introduction

This booklet describes Pulse Dose Rate (PDR) pelvic needle brachytherapy treatment. It is a treatment option available for some women with cervical, vaginal, vulva and endometrial (uterine) cancer.

There are many ways of treating cancer. Consult with your doctor, and choose the option that is best for you.

Questions about treatment?

Call your Brachytherapy Office
(Monday to Friday, 8:00 am – 4:30 pm)

Edmonton

780-432-8475



A

Radiation Treatment

1) What is radiation treatment?

Radiation is a treatment for cancer that destroys cancer cells by stopping them from growing and dividing.

The types of radiation treatment are:

- **External radiation** — the radiation is produced by a machine and is aimed at the tumour, so it comes from outside of the body.
- **Internal radiation** — the radioactive source is placed inside the body, either inside the tumour, or close to it.

2) What is brachytherapy?

Brachytherapy is internal radiation treatment, and means “short distance”. This means the radiation source is **close to or inside** the patient.

There are different ways to give brachytherapy and the type used depends on the part of your body that needs treatment.

The type this booklet looks at is called **pelvic needle brachytherapy** (also called interstitial brachytherapy).

3) What is pelvic needle brachytherapy?

Pelvic needle brachytherapy delivers a high dose (high amount) of radiation to a very small area. Several thin hollow needles are placed temporarily into the part of the body that needs treatment.

You will get an anesthetic and then your Radiation Oncologist (radiation cancer doctor) will insert the needles in the operating room.

Sometimes pelvic needle brachytherapy is given at the same time as intracavitary brachytherapy — a type of internal radiation treatment. Along with the pelvic needles, a **treatment applicator** is placed inside an opening of the body such as the cervix and into the uterus.

What happens during the treatment?

A radioactive source travels inside the hollow needles, and stays for several minutes. During this time, the radioactive source delivers the radiation treatment to the area the Radiation Oncologist wants to treat. (See more information on page 5).

B

Preparing for Treatment

Tests

You will have a Pre-Admission Clinic visit where several tests may be done. These tests may include:

- Blood work
- A chest X-ray
- An electrocardiogram (ECG)

Consent:

Before we can go ahead with the treatment, you need to give your consent. This means you agree to have the treatment.

To help make your decision, you need to know the:

- Goals for treatment
- Risks and benefits to getting the treatment
- Other possible treatment options other than radiation
- Possible outcomes if you **do not** have treatment



Arrange for someone to drive you home after your treatment is done.

The night before treatment:

- Eat or drink nothing after midnight (12am).
- Take a shower or bath (or the morning of if you want).
- Empty your bowels using Pico-salex. You can buy this from your pharmacy without a prescription.

The day of treatment:

- Check with your nurse which of your medications you can take on the day of your implant. Take your medication with just a small sip of water.

What to bring:

- A pair of socks to cover your feet — your blanket will not cover your feet.
- Something to do — you can read, watch TV, listen to the radio, and other quiet activities while in bed.
- Government ID and your health care card

1) Inserting the pelvic needles

- You will need to put on a hospital gown and your clothes and valuables will be put into your hospital room on Station 30.
- You will get an IV (intravenous line) to give you fluids and medications during your treatment.
- The Anesthetist will decide if you need a **general anesthetic** (be completely asleep) or a **spinal anesthetic** (numbness from the waist down).
- A catheter will be placed in your bladder. This will stay in until your radiation treatment is finished.
- The pelvic needles which will hold the radioactive source are inserted.

2) After the needles are inserted

- You will wake up in the Recovery Room where a nurse will monitor you.
- You will have a CT scan and an MRI. These scans check the placement of the needles, and help the Radiation Therapist and Radiation Oncologist plan the exact dose and time needed for your treatment. Planning your treatment can take several hours.
- After the scans, you will be taken to your inpatient room on Station 30. Your nurse will provide you with any care you need.
- You may have cramping or slight discomfort in your pelvic area. If this happens, tell your nurse. Your nurse can give you medication to help make you more comfortable.

3) During your treatment

How long will my treatment be?

Your time in the hospital can range from 3–5 days. You must stay in bed for your entire stay in the hospital. Your nurse is available 24 hours to help you with any care you need.

What if I need to move?

Your nurse or brachytherapist will show you how to move (log roll) so the needles stay in the same position.

What happens at treatment?

- You will have an IV to give you fluids and medications.
- You will get a blood thinner to prevent blood clots.
- Every 1 hour (60min) you will have 15-40 minutes of treatment (called a “pulse”) followed by a break (called a “pulse pause”).
- During your break you can have nursing care and visitors in the room.

What if I have to go to the bathroom?

- You will have a catheter in place to drain your bladder.
- You will be on a low residue diet to prevent bowel movements. Your nurse can give you medication to prevent the urge to have a bowel movement.

Do the treatment needles stay in my body?

No, the treatment needles will be removed after your final “pulse” of radiation treatment.

Alarms



You may hear an alarm during treatment. Alarms can sound for many reasons and will stay on until your treatment team shuts it off and fixes the problem.

4) Removal of the pelvic needles

When the radiation treatment is complete:

- Your brachytherapist will enter the room to check that the radioactive source has returned to the treatment unit.
- Your Radiation Oncologist will come to your hospital room to remove the needles with the help of the Brachytherapist.

There may be a small amount of bleeding and discomfort during the removal. You will get pain medication to relieve discomfort. Pressure will be applied to stop any bleeding.

D

After Your Treatment

- You are **not** radioactive after your treatment.
- Since you have to lie in bed for so long, you may feel a little weak when you first get up. Call your nurse for help when you are ready to get out of bed.
- You may have a bath if you wish, or a shower but **use a chair**.
- You will get discharge instructions and you may go home with a companion.
- You may take Tylenol® (acetaminophen) for discomfort.
- You may have some vaginal discharge or bleeding, which should stop after a few days. Wear a pad, but do **not use a tampon**.

E

Managing Your Side Effects

Side effects depend on many things, including how much radiation you get. Everyone is different and experiences the side effects differently.

1) Fatigue

You may feel tired (fatigued) as a result of your treatment. This tiredness usually goes away in a few days to weeks.



For more information on how to manage cancer-related fatigue:
<https://myhealth.alberta.ca/Alberta/Pages/cancer-fatigue.aspx>

2) Vaginal Tightening

Over time, radiation treatment can cause the vagina to narrow and shorten. You will get instructions and a vaginal dilator to help with this.

Vaginal dilators help:

- Keep your tissues soft and able to stretch
- Make sexual activity more comfortable
- Stretch your tissues for physical examinations



Wait 2 to 4 weeks before you use your dilator after **brachytherapy treatment**, unless your Radiation Oncologist tells you otherwise.

3) Vaginal Irritation

Irritation to the lining of your vagina can cause discomfort with sex, and can take weeks to improve. If there is no infection, you can start having sexual intercourse as soon as you feel up to it.

Try using a water soluble lubricant or vaginal moisturizer for comfort. If you have any difficulties returning to your usual sexual practices, tell your nurse, Radiation Therapist or Radiation Oncologist.



- You can email your questions to: sexandcancer@ahs.ca
- Visit <https://myhealth.alberta.ca/HealthTopics/cancer-and-sexuality>

4) Infection

There is a small risk of infection after having this treatment.

Go to the nearest Emergency Room and tell staff you had brachytherapy treatment if you have:

- **Heavy bleeding**
- **Abdominal pain**

- **Fever:**

38.0°C/100.4°F to 38.2 (100.8°F) for at least 1 hour

OR

38.3°C/100.9°F or higher at any time



F

Follow-Up

Your follow-up care is very important. Your Radiation Oncologist will see you after you finish your treatment.

Ask your Radiation Oncologist:

- When you will have your next follow-up appointment
- How often you will have follow-up appointments

G

Your Brachytherapy Team

- **Radiation Oncologist** – a medical doctor who treats cancer using radiation.
- **Medical Physicist** – a specialist of medical physics who helps plan the treatment and ensures the quality of the implant.
- **Radiation Therapist or Brachytherapist** – delivers radiation treatments, and helps you before, during and after the treatment.
- **Anesthesiologist** – a medical doctor who provides you with care during your implant and recovery. They may talk to you about the medications you take before and after the implant.
- **Dosimetrist** – a radiation therapist specializing in the treatment planning for radiation.
- **Nurse** – may help in the operating room, during your recovery, and on the inpatient ward.





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