

# HDR Brachytherapy for Gynecological Cancer

Radioactive Iridium-192 Temporary Implant



Radiation Treatment

Information for  
Patients and Families



Cancer Care  
Alberta

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## Questions about Treatment

If you have questions or concerns about your treatment, call the Brachytherapy Office (Mon to Fri 8:00am – 4:30pm)

**403-521-3955 (Calgary)**

### 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 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. This is called **brachytherapy**.

### What is HDR brachytherapy?

**HDR brachytherapy** is a type of radiation treatment where a radiation source is **temporarily placed inside** the patient using a special applicator. HDR stands for **High Dose Rate**.

HDR brachytherapy is a treatment option available for some people with cervical, vaginal, vulva and endometrial (uterine) cancer.

### What is the radiation source?

The radiation source is called **iridium-192**. It is very small, and is about 3.5 mm long and 0.6 mm thick.

### Will I be radioactive?

**No, you will not be radioactive.** There is no radiation left inside your body after the treatment procedure.

## How many treatments will I get?

Your radiation oncologist will talk with you about how many treatments you will need. Some people will have treatment once a week for several weeks, while others may be admitted to the hospital overnight and have their treatment over 2 days.

## What do I need before I have the treatment?

- Imaging such as a CT, an MRI, or both will be taken of your pelvis. These images will help the radiation oncologist prepare for your treatment.
- You may need to go to the pre-admission clinic or they may just call you, so they can assess your general health and ability to have anesthetic. Your doctor may ask that you have tests such as blood work, x-ray or EKG (checks the heart) to help make this assessment.
- The pre-admission clinic will also tell you if you need to stop certain medications temporarily before or after your treatment.

## B

## Your Brachytherapy Team

- **Radiation Oncologist** – a cancer doctor for radiation treatment who prescribes your treatment and helps you manage any side effects.
- **Medical Physicist** – a specialist who helps plan the treatment and ensures the quality of the radiation.
- **Radiation Therapist** – delivers radiation treatments, and helps you before, during and after the treatment.
- **Dosimetrist** – a radiation therapist specializing in the treatment planning for radiation.
- **Anesthesiologist** – a medical doctor who provides you with care during your treatment and recovery. They may talk to you about the medications you take before and after the treatment at the pre-admission appointment.
- **Nurse** – there will be a few different nurses who will help with your care throughout the day of the procedure.

**C****Preparing for the Procedure****What can I do to help prepare for my procedure?**

You can write the instructions on a calendar at home or on your phone so you remember when you need to do them.

**Visit the Pre-admission Clinic**

If you have not had an appointment at the Pre-admission Clinic, call the Calgary Brachytherapy Office: 403-521-3955.

**What should I bring to the hospital?**

- Your healthcare card
- Someone to drive you home
- Government ID

**What if I need a place to stay before the treatment day?**

There are some hotels and motels close by, which may offer a discounted rate. In Calgary, you can stay at the hospital hostel 403-944-1156.

**D****The Day of the Procedure****Checking-in for your treatment**

Your brachytherapy team will review the check-in instructions with you. You may need to check in at Tom Baker Day Surgery, or at McCaig Tower Day Surgery.

**Before the treatment happens**

- You will need to change into a hospital gown. A doctor (anesthesiologist) will talk to you about the anesthesia plan. The anesthesia will help you from feeling pain, and may cause you to sleep during the procedure. You may get a spinal, epidural or general anesthesia.

- You will be taken into the operating room and the doctor will start the anesthesia. They will monitor you during the procedure and may give you more pain medicine if you need it. You may also get IV antibiotics to help reduce your risk for infection.
- You will lie on your back with your legs held up by stirrups.
- The radiation oncologist will do a pelvic exam.
- A catheter will be placed in your bladder to drain your urine (pee).
- The nurse will clean the treatment area.

### **The procedure**

Your radiation oncologist will work with the team to place the applicator in the appropriate position. Sometimes pelvic needles, called flexi-guides are used instead of an applicator. The pelvic needles are hollow, so the radiation source can pass through to the treatment area. Your provider will use ultrasound to make sure the applicator or pelvic needles are put in the right place.

### **The treatment plan**

Once the radiation source is in place, you may have a CT simulation scan and an MRI Scan. These scans help to check that the applicator or needles are in the right place. They also help the radiation therapist and oncologist plan the exact amount (dose) of radiation you need. This imaging can take up to an hour, and you will need to lie still.

### **How long will it take to plan my treatment?**

It can take 2-3 hours to plan your treatment. During this time you may be a bit drowsy from the anesthesia.

## **Will I have any discomfort while I'm waiting?**

While you wait for your treatment, you may have cramping or discomfort in the area of your pelvis. If this happens, tell your nurse. Your care team can give you medication to help make you more comfortable.

### **The brachytherapy treatment**

- Once the treatment plan is ready, you will be moved into the treatment room.
- The transfer tubes will be connected to the treatment machine.
- The radiation therapist will leave you in the treatment room for about 15-20 minutes while the treatment is delivered. They will monitor you by video camera, and you can talk to them through a sound system.
- The radioactive source will travel inside the applicator and flexi-guide tubes, one by one while delivering radiation. This allows the source to deliver the treatment to the area the radiation oncologist wants to treat.
- You will need to stay as still as possible during the treatment so that the flexi-guides stay in place.

### **Removing the radiation source**

The source has a thin wire attached to it, which is used to return the source to the treatment machine when the treatment is finished. You will not feel any discomfort as the source is moving through the applicator and tubes.

## Removing the treatment applicator

When the treatment applicator is removed:

- You will feel pressure as gauze (packing) is applied to the area
- You may get medication to help reduce bleeding
- You will be taken back to the recovery area where you will stay until you can pee on your own without the catheter. This normally takes about 1 hour, but can vary from person to person
- If you are having treatment once per week, you will be discharged from the hospital. You will also need to have someone drive you home. If you are having treatment over 2 days, you will be taken to your hospital room.
- You may have some vaginal discharge, bleeding or spotting, which should stop after a few days. You may wear a pad, but **do not use** a tampon

## Follow-up care

Your follow-up care is very important. You will have a follow up appointment with your radiation oncologist **about 6 to 8 weeks after your treatment is complete**. Your radiation oncologist will continue to see you.

## E

## Managing Your Side Effects

Common side effects after the treatment:

- The need to pee may be more urgent or more often
- More bowel movements (poops) than usual
- Vaginal irritation and discharge
- May have some blood spotting or burning when you pee



If you develop severe pain, bleeding, discharge or a high fever, or you cannot pee, go to the emergency room.



## What can I do to help after treatment?

- Keep the skin of your perineum area (bottom) as clean and dry as possible. Do not rub hard after going to the bathroom. Use a mild, unscented soap. It may be helpful not to wipe. Use a squeezable bottle to help rinse the area after going to the bathroom.
- If peeing is painful, pour warm water over the area before and while you pee to reduce the burning feeling.
- Follow any other recommendations or instructions given to you by your healthcare providers.
- Take all prescribed medications as directed.

## Take a sitz bath

A sitz bath 2-3 times per day can help. A sitz bath is a warm, soothing soak for the area of the rectum. You can use your bathtub, a large basin or a plastic sitz bath that fits over a toilet seat. You can buy these at a drug store.

## How a sitz bath helps:

- Cleans your skin
- Lowers the chance of infection
- Soothes your skin and makes it feel better
- Gets blood flowing to the area to speed up healing

## Tips for your sitz bath:

- Use lukewarm water and do not add anything to the water
- Always check the temperature of the water to make sure it is not too warm.
- Soak your bottom for about 10-15 minutes each time.
- Have as many sitz baths as you like to stay comfortable.
- Do not add bath oils or anything else to the water.

## Fatigue

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



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

## 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
- Prevent adhesions
- Make sexual activity more comfortable
- Stretch your tissues for physical examinations



Image © AHS

Wait 4 to 6 weeks before you use your dilator after brachytherapy treatment, unless your Radiation Oncologist tells you otherwise.

Adhesions can form after brachytherapy. These can cause the walls of the vagina to stick together. This can make pelvic exams and sexual intercourse painful. Vaginal dilatation helps prevent adhesions.

If you are not sexually active on a regular basis, you may need to use a vaginal dilator. Ask us about this during your appointment.

## Vaginal Irritation

Irritation to the lining of your vagina can cause discomfort with sex, and can take weeks to improve. Try using a water soluble lubricant, or vaginal moisturizer for comfort. If you have no infection, and feel up to it, you can start having sexual intercourse 4-6 weeks after the procedure.

## Sexual activity

Sexual function can vary after the treatment. It may take time before your sexual function returns to how it was before the implant. You may need medication. If you have any problems returning to your usual sexual practices, talk to your healthcare team.



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

## Infection

Sometimes an infection can develop in the days after the procedure. You may get antibiotics in the operating room to help prevent infection.

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

• **Heavy bleeding** • **Pain in your stomach**

• **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



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