

Radiation Therapy to the Vaginal Vault: High Dose-Rate (HDR) Brachytherapy Procedure

This handout offers information on HDR radiation therapy to the vaginal vault (the top of your vagina). We support you and your family member/partner-in-care during your treatments and answer any questions you have.

After each radiation treatment, it is safe for you to be around other people (including children) and pets. You are not radioactive.

During this procedure an applicator is placed into your vagina. A radioactive source will be placed inside the applicator to give treatment to your vaginal vault. The radioactive source and applicator are removed after each treatment is finished.

Each appointment is about 40 minutes long. Your radiation oncologist will decide how many treatments you need.

What happens on the day of your procedure?

Check in at a computer on the B1 level (lower level) after you arrive at the cancer centre. Take a seat in the waiting room until you are called by a radiation therapist. The radiation therapist will explain the procedure to you and make sure you are ready for it.

For each procedure, you will lay on your back, and your legs will be fully supported in stirrups. An applicator (see picture #1) will be put in your vagina by a radiation oncologist.



Picture #1: Applicator that is put in your vagina

A medication will be used to numb your vagina before the applicator is put in. A lubricating gel will be placed on the applicator to make it easier for it to go into your vagina. You may feel some discomfort when the applicator is placed into your vagina. You may notice this more on your first day of treatment. It is important you relax as this makes it easier for the applicator to be put in. You need to stay still during this time. Let your healthcare team know if you are uncomfortable or have any concerns. The applicator inside your vagina is connected to the brachytherapy machine (see picture #2) with a tube.



Picture #2: Brachytherapy machine

The radioactive source moves from the brachytherapy machine, through the tube to the applicator in your vagina. The radioactive source will be in place for about 5 to 15 minutes before it returns to the brachytherapy machine. The applicator will be removed from your vagina. You will not feel anything during the treatment.

Side effects you may have

Radiation treatment side effects are different for each person. You might experience some minor vaginal spotting (small amount of light bleeding) after the HDR procedure. If you are having external beam radiation you will be given the handout called “Radiation Therapy to the Pelvis” for a list of side effects and what you can do to manage them. If you are having both external beam radiation and brachytherapy, you may have more side effects.

Bladder symptoms

Radiation therapy to your pelvis area may cause you to:

- Feel pain when you urinate (pee).
- Have difficulty urinating.
- Feel like you are not always emptying your bladder.
- Feel you need to urinate right away.
- Urinate more often, especially at night.

What you can do to help:

- Drink 6 to 8 cups (1 cup = 250ml) of liquid every day.
- Drink less liquids with alcohol or caffeine in them.
- Drink less liquids after your evening meal.

Vaginal symptoms

Radiation therapy to your pelvis area may cause your vagina to feel dry and tight. It can also cause scarring. This scarring can make your vagina narrower and less flexible. This may cause you to have pain with a pelvic exam or with sex.

What you can do to help:

- Wear cotton underwear and pantyhose with ventilated lining.
- Your healthcare team can recommend creams or suppositories that may help with your vaginal dryness.
- Using a water-based lubricant can make sex more comfortable.
- A vaginal dilator is a device that you put inside your vagina to keep it open for a period of time. At your last treatment appointment, you will be given a vaginal dilator and told how to use it. It is important you read the handout you will be provided on “Using a Vaginal Dilator.”

No energy/feeling tired

Radiation therapy to your pelvis area may cause you to feel tired. You may find your energy level is low.

What you can do to help:

- Keep your normal sleeping schedule. Wake up at the same time each day.
- A short nap (less than an hour) between 12 pm and 3 pm may give you more energy.
- Reduce your alcohol and caffeine in the afternoon and evening.
- Plan your day with time to rest before and after activities.
- Eat healthy foods. Eat small meals and snacks throughout the day.
- Drink 6 to 8 cups (1 cup = 250ml) of liquid every day. This helps you stay hydrated.
- Keep active with about 30 minutes of exercise (example: walking) each day. If 30 minutes is too hard, split it up into shorter 5 to 10 minute sessions.

For more information, read the “Managing Your Fatigue: For People With Cancer” booklet found at cancercareontario.ca/en/symptom-management/3991

Fertility

Radiation treatment to the pelvis may affect your fertility. Your doctor will talk to you about this and give you the information you need. Birth control is recommended during treatment.

Pre-menopausal women may experience menopause following treatment. This means you will not have periods anymore.

Relationships, body image and intimacy symptoms

Radiation therapy can affect your relationships, body image and intimacy. It may change the way you feel about sex. It is also common to have fears and worries that may affect your relationships with others. This can cause changes in your stress level and emotions.

What you can do to help:

- Talk to a member of your healthcare team about your fears and worries.
- Talk to your family and friends about your fears and worries.
- Ask your healthcare team about community support programs such as Hearth Place, the Canadian Cancer Society, and the Look Good Feel Better Program.
- Keep a daily journal throughout your treatment.

For more information read the “Intimacy and Sex For People With Cancer and Their Partners” booklet found at cancercareontario.ca/sites/ccocancercare/files/IntimacyandSex.pdf

If you have a problem or concern about a symptom or side effect from your cancer treatment:

1. Call your primary nurse at the cancer centre from Monday to Friday, 8:30 am to 4 pm, (except on holidays). Use the phone number your primary nurse gave you.
2. Contact CareChart Digital Health from Monday to Friday, 4 pm to 8:30 am and anytime on weekends and holidays for symptom management support.

Talk to a nurse using one of these options:

- Call the after-hours telephone line at 1-877-681-3057.
- Request a video call by going to carechart.ca.
- Use the CareChart Digital Health App. This App is available to download for iOS or Android devices.

Call 911 or go to the Emergency Department at the hospital closest to you for a medical emergency.

What happens next?

Side effects you have from radiation treatments will continue for up to 4 to 6 weeks after your treatments are finished. Some of the side effects may get worse before they get better. This is normal. At your last treatment appointment, the radiation therapists will review any care you need to continue during this time.

At your last treatment appointment, you will be given a follow up appointment to see your radiation oncologist. Until you come back for this appointment, you need to have enough of the medications the radiation oncologist prescribed for you.

For more information on brachytherapy treatment, see the Canadian Cancer Society's booklet on Radiation Treatment: A Guide for People with Cancer. Go to cancer.ca and search for the name of the booklet.

Talk to a member of your healthcare team if you have questions or do not understand any of the information in this handout.

Last reviewed: April 2026