Intra-Cavitary Implants: A Woman’s Self-Care Guide

Coping with the changes brought about by cancer treatment is easier when you have information and support.

The information provided here will explain intra-cavitary (internal radiation) treatment. It will tell you what to expect before, during and after the procedure, and how to care for yourself at home.

If you have any questions, ask your doctor or nurse.

What is Radiation Therapy?

Radiation therapy, also called radiotherapy, is a form of cancer treatment. It uses high-energy rays to kill cancer cells. Cancer cells are able to divide and reproduce more rapidly than healthy cells. Radiation therapy stops these fast-growing cells by destroying their ability to grow and divide. Although both healthy and cancer cells are destroyed, most healthy cells are able to recover quickly.

There are 2 types of radiation therapy, external and internal. A combination of external and internal radiation therapy often is used to treat cancer of the cervix, uterus and vagina.

External Radiation

With external radiation therapy, you receive radiation from a machine positioned outside your body. Patients usually receive external radiation therapy over several weeks as an outpatient. Treatments are given Monday through Friday with weekend breaks.

Internal Radiation

With internal radiation therapy, radioactive material is placed inside your body at the site of the cancer. Internal radiation therapy places the radiation as close as possible to the site of the cancer so that radiation exposure to other nearby body tissues is limited.

High Dose Rate (HDR) Brachytherapy

HDR brachytherapy is a form of internal radiation to treat cancer. HDR delivers a high dose of radiation over a short period of time. Since it is given directly to the tumor site, the dose of radiation to other body tissues near the tumor is limited.

This therapy is given over 2 to 6 implant treatments. You may begin your implant treatments while you are receiving your external beam radiation treatments. If so, you will have 1 to 2 implant treatment per week. You will not receive an external beam treatment on the day of your implant treatment. Once you have finished your external beam treatments, you will likely have 1 to 2 implant treatments per week until they all are completed.
You will have many important questions to ask about your treatment. Your radiation oncologist and radiation nurse are the best people to provide answers.

**Preparing for the Procedures**

Your doctor may order some tests to be completed before your first procedure. Prior to your procedure, you may need to have blood testing, a chest X-ray and possibly an electrocardiogram (EKG). Your doctor will let you know what is needed.

There are several ways you can prepare yourself physically for the internal radiation procedures. Exercise can help improve your circulation before the procedure. Be sure to check with your doctor before starting any exercise routine. Light exercise such as walking 20 minutes a day for 3 days during the week prior to your procedure will help prevent you from feeling weak following the procedures.

**Day Before the Procedures**

Follow these instructions before each of your implant treatments. You will be receiving medication to make you sleep (conscious sedation) before each procedure. **Do not eat or drink anything 8 hours before your procedure.** Your doctor will let you know what medications you may take with a sip of water, if needed. Sleep medication can be provided, if needed, on the night before your procedure, but you must take it **before midnight.**

Since you will be receiving sedation at each implant treatment, please arrange for a responsible adult to take you home. You are not allowed to drive yourself home.

**Arriving at the Hospital**

The day of the first procedure, you will check into the pre-operative area on the 6th floor of the Prentice Women’s Hospital, 250 East Superior Street. Valet parking is available through the hospital driveway. Discounted rates for both valet parking and self-parking in the garage at 222 East Huron Street are available for patients, family and visitors. The first procedure will be done in the operating room. The last 4 or 5 treatments will be done in the Radiation Oncology Department in the lower level of the Galter Pavilion.

**During Your First Procedure**

The first day of your implant treatment will last all day since you will be having a series of procedures. Plan to go home in the late afternoon.

Once you are in the pre-op holding area, you will change into a hospital gown. An IV (into the vein) line will be started in your arm. Fluids and medicines will be given through the IV during the procedure. Your nurse will help make you comfortable.
You will then be taken into the operating room where you will receive anesthesia to make you sleep. A catheter to drain your urine will be placed in your bladder. The OR staff will prepare you for the procedure and clean the area.

In the OR, a plastic device called a sleeve is put in the opening of your uterus (cervix) to keep it open so that the devices which will deliver the radiation can be placed. This sleeve will be held in place with 2 or 3 stitches and will stay in place until after your last treatment. Most likely, you will not feel the sleeve once it is in place; however, you should avoid sexual intercourse until the sleeve is removed. This will prevent discomfort to you or your partner.

**Applicator Placement**
Next, the device which delivers the radiation (brachytherapy applicator) is placed inside the sleeve and cervix. This applicator is a thin tube that will be used to deliver the radiation to the site. The applicators used for the implant treatment are individually fitted for each patient. They are removed at the very end of each treatment.

After this first procedure, you will go to the recovery area. When you wake up, you will be taken for an MRI imaging test. This is to check that the devices are in the correct position. After the MRI, you will be taken to a holding area to wait. A radiation plan is created and you may then receive your radiation treatment. Typically, it takes about 3 to 4 hours after the MRI is done before you receive your radiation treatment.

**Your Implant Treatment**
When the radiation plan is decided, you will be taken to the treatment room in the radiation oncology department. The staff will assist you on to a treatment table, help you find a comfortable position and prepare you for the treatment. The radiation oncologist will set up the radiation machine, connect the applicators, and deliver the radiation dose. You will not feel any discomfort at this time. The radioactive source stays inside the applicator tube. It will never come in direct contact with your body tissues and you will not become radioactive.

You will be alone in the room during the treatment but, the staff will be able to hear, see, and talk to you through an intercom. You will also be able to talk to them if you need anything. The radiation treatment lasts about 15 minutes. It is important that you lie still during the treatment. Do not move below your waist.

After your treatment is complete the applicators and bladder catheter will be removed by the medical staff. You will be given medication to make you comfortable during this portion of the procedure. The nurse will give you discharge instructions before going home.

Note: Depending on the location of your disease, your doctor may decide to use needles to deliver the radiation. Patients who have needles placed in the cervix may need to stay overnight in the hospital. They will have an additional treatment the next day.
Second Implant and All Other Implants

The remaining treatments begin in the radiation oncology department in the lower level of the Galter Pavilion. Your visits will last about 6 hours each. The following procedure is repeated before each treatment.

Before each implant treatment, you will change into a hospital gown. An IV (into the vein) line will be started in your arm. You will be given medicine to make you sleep. The caregivers will prepare you for the procedure, clean the area, and insert a catheter into your bladder to drain urine. The doctor will then place the applicators into your vagina and the sleeve. You may experience bleeding from your vagina and cramping, pressure or pain in your lower pelvic area and vagina. You may feel fullness in your vagina. We will do our best to keep you comfortable during this procedure.

After the applicators are placed you will have a CT scan or MRI to check the placement of the applicators. After the scans are done, you will be taken to a holding area. Your doctor will use the scans as a guide to plan your treatment. Typically it takes about 3 to 4 hours after the imaging is done before you receive the treatment. Once your treatment plan has been created, your radiation treatment then follows the same procedure as the first day.

Note: If needles are used, the following visits may require OR visits. Individuals who have needles placed in the cervix may be required to stay overnight in the hospital for an additional treatment the next day.

After the Last Treatment

At the end of your last implant treatment, the radiation oncologist will remove your sleeve. The sleeve is removed in the radiation department. You do not have to go to the operating room for sleeve removal.

The nurse will give you discharge instructions. You should schedule a follow-up appointment with your radiation oncologist in 1 month.

Care at Home

Side Effects

You will not be radioactive after this treatment. Your body fluids will not be radioactive. You may notice a small amount of vaginal spotting (drops of blood) for 1 to 2 days after the procedure. Other side effects include:

- Vaginal discharge
- Cramping in your abdomen
- Bladder irritation
- Diarrhea
- Fatigue

Your doctor or nurse will help you manage any side effects that may occur.
**Activity**
Do not drive on the day of your implant treatment. You may resume activity as tolerated the next day. However, avoid sexual intercourse until your doctor tells you it is safe to do so.

**When to Call the Doctor**
If you have any of the following symptoms, call us or your doctor immediately:
- Temperature above 101°F
- Heavy vaginal bleeding (soaking 1 or more pads per hour)
- Abdominal pain unrelieved by Tylenol® or Motrin® (ibuprofen)
- Change or difficulty with urination or bowel movement

Department of Radiation Oncology: Brachytherapy Patient Care Coordinator:
- Monday through Friday 7 am to 5 pm at **312.472.0110**
- After clinic hours or weekends at **312.472.3650**

**Northwestern Medicine – Health Information Resources**
For more information, contact Northwestern Memorial Hospital’s Alberto Culver Health Learning Center (HLC) at hlc@nm.org, or by calling 312.926.5465. You may also visit the HLC on the 3rd floor, Galter Pavilion at 251 E. Huron St., Chicago, IL. Health information professionals can help you find the information you need and provide you with personal support at no charge.

For more information about Northwestern Medicine, please visit our website at nm.org.

Para asistencia en español, por favor llamar al Departamento de Representantes para Pacientes al 312.926.3112.

The entities that come together as Northwestern Medicine are committed to representing the communities we serve, fostering a culture of inclusion, delivering culturally competent care, providing access to treatment and programs in a nondiscriminatory manner and eliminating healthcare disparities. For questions, please call either Northwestern Memorial Hospital’s Patient Representatives Department at 312.926.3112, TDD/TTY 312.926.6363 or the Northwestern Medical Group Patient Representatives Department at 312.695.1100, TDD/TTY 312.926.6363.

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