

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

Intracavitary Implants: Self-care Guide

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

This brochure will explain intracavitary (internal) radiation therapy, also known as brachytherapy. In this therapy, a radioactive implant will be placed directly into a body cavity such as the vagina or uterus. It will tell you what to expect before, during and after the procedure, and how to care for yourself at home.

Radiation therapy

Radiation therapy, also called radiotherapy, is a form of cancer treatment. It uses high-energy X-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 cells 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 cancers of the cervix, uterus and vagina.

External radiation therapy

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 therapy

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

High-dose-rate brachytherapy

High-dose-rate brachytherapy is a form of internal radiation therapy to treat cancer. This therapy delivers a high dose of radiation over a short period of time. It is given directly to the tumor site, so the radiation exposure of other body tissues near the tumor is limited.

This therapy is given over 2 to 6 implant radiation treatments. You may begin your implant treatments while you are receiving your external radiation treatments. If so, you will have 1 or 2 implant treatments per week. You will not receive an external radiation treatment on the day of an implant treatment.

Once you have finished your external radiation treatments, you will likely have 1 to 2 implant treatments per week until they all are completed.

You may have questions about your radiation therapy. Your radiation oncologist and radiation nurse will be able to provide answers.

Preparation for implant radiation treatment

Your physician may order some tests to be completed before your first treatment, such as blood testing, a chest X-ray and possibly an electrocardiogram (ECG). Your physician will let you know which tests are needed.

There are several ways you can prepare yourself physically for these treatments. Exercise can help improve your circulation before the treatments. Be sure to check with your physician before starting any exercise routine. Light exercise, such as walking 20 minutes a day for 3 days, during the week before each treatment will help you feel less weak following the treatments.

Day before implant radiation treatment

Follow these instructions before each of your implant treatments. You will receive medication to make you sleep (conscious sedation) before each procedure. **Do not eat or drink anything 8 hours before your procedure.** Your physician will let you know which 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.**

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

Arriving at the hospital

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

Your first treatment

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

Once you are in the pre-operative 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 to the OR 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 the devices that will deliver the radiation (brachytherapy applicators) 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 for you or your partner.

Applicator placement

The brachytherapy applicators are then placed inside the sleeve in your 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 be taken to the recovery area. When you wake up, you will have a magnetic resonance imaging (MRI) 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. It usually takes about 3 to 4 hours after the MRI is finished before you receive your radiation treatment.

During and after the treatment

After your radiation plan is determined, you will be taken to the treatment room in the Radiation Oncology Department. The staff will help you onto 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. Your 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.

Please note, depending on the location of the cancer, your physician may decide to use needles to deliver the radiation dose. If you have needles placed in your cervix, you may need to stay overnight in the hospital. You will have an additional treatment the next day.

Second and remaining treatments

Your remaining treatments begin in the Radiation Oncology Department in the lower level of the Galter Pavilion. Your visits will last about 6 hours each. These procedures are repeated before each implant treatment:

You will change into a hospital gown. An IV 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 physician 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 computed tomography (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 physician will use the scans as a guide to plan your treatment. It usually takes about 3 to 4 hours after the imaging is finished before you receive the treatment. Once your treatment plan has been created, your radiation treatment then follows the same procedure as the first day.

Please note that if needles were used for your first treatment, the following visits may require you to go to the OR. If you have needles placed in your cervix, you 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 the sleeve in a treatment room in the Radiation Oncology Department. You do not have to go to the OR 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 (feeling very tired)

Your physician or nurse will help you manage any side effects that may occur.

Activity

Do not drive on the day of an implant treatment. You may resume activity as tolerated the next day. However, avoid sexual intercourse until your physician tells you it is safe to do so.

When to call your physician

Call your physician or the brachytherapy patient care coordinator right away if you have any of these symptoms:

- Temperature above 101 degrees F
- Heavy vaginal bleeding (soaking at least 1 pad per hour)
- Abdominal pain unrelieved by acetaminophen (Tylenol®) or ibuprofen (Motrin®)
- Changes or difficulties with urination or bowel movements

You may contact the Department of Radiation Oncology brachytherapy patient care coordinator Monday through Friday from 7 am to 5 pm at 312.472.0110 and after clinic hours or on weekends at 312.472.3650. TTY for the hearing impaired 312.926.6363.