

## **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.

*You and your family members may find it helpful to write down questions for your doctor and nurse.*

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

Use this booklet to supplement additional information provided by doctors, nurses and other members of your healthcare team. Since some of the medical terms used here may be unfamiliar, a list of definitions is included near the end. Please feel free to ask your healthcare team any questions you may have.

### **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. With external radiation therapy, you receive radiation from a machine positioned outside your body. With internal radiation therapy, radioactive material is placed inside your body at the site of the cancer. A combination of external and internal radiation therapy often is used to treat cancer of the cervix, uterus and vagina.

Patients usually receive external radiation therapy over several weeks as an outpatient. Treatments are given Monday through Friday with weekend breaks.

Internal radiation therapy places the radiation as close as possible to the site of the cancer. An applicator (a device containing radioactive material) is inserted through your vagina into your uterus. The applicator usually is left in place for 2 or 3 days. This type of radiation therapy requires a short hospital stay.

You will have many important questions to ask about your treatment. Your radiation oncologist and radiation clinical nurse specialist are the best people to provide answers. Questions women most often ask include:

- What type of cancer do I have?
- How will it be treated?
- How successful will the radiation treatment be?.

You and your family members may find it helpful to write down questions for your doctor and nurse. Taking notes during visits can help you remember what your doctor or nurse said. You should ask your doctor and nurse to repeat or explain more fully anything that is unclear. The following are some questions that you may want to ask your doctor and nurse:

- What are the benefits of internal radiation?
- What are the risks and side effects of radiation treatment?
- Does this radiation affect other people?
- How will radiation treatment change my usual activities?
- Is it still possible for me to have a baby?
- How often will I need a check-up?

Concerns often arise about medical tests, treatments, a hospital stay, finances and the future. Talking to your doctor, nurse or other members of the healthcare team may help relieve your worry and confusion. They can provide helpful information, emotional support and support services.

Living with cancer can be difficult. When you receive cancer treatment, life can change for you and the people who care about you. At times, you, your family and friends may feel sad, scared or angry. Emotions may range from confidence and hope to fear and disbelief. Many women are better able to cope with their emotions if they can talk about their treatment and share feelings with family and friends.

Women also may have concerns about their sexuality and sex during and after treatment. It is helpful to discuss your concerns with your doctor or nurse. They can provide you with information and support to help address and relieve these concerns.

## How Can I Prepare for the Procedure?

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

Modified sit-ups can help strengthen back muscles and prevent backaches during bedrest. To perform modified sit-ups:

- Lie on your back with your knees slightly bent. Place your hands under your head to support your neck.
- Using your abdominal muscles, lift your shoulders off the ground. Keep your chin up and pointed toward the ceiling. Start with 10 sit-ups. Work up to 30 if you can.

Prior to your procedure, you may need to have blood testing, a chest X-ray and possibly an electrocardiogram (EKG).

Three days prior to the procedure, eat a low-fiber diet. A low-fiber diet consists of foods that should reduce your bowel movements during the procedure. This will help you feel more comfortable while the applicator is in place. You will find a list of foods allowed and foods to avoid on pages 9 and 10.

Sleep medication can be provided if needed on the night before your procedure, but you must take it **before midnight**.

Remember to talk with your doctor or nurse about questions and concerns you may have.

## Arriving at the Hospital

The day of the procedure, you will be admitted to the hospital. Go to the admitting department on the 5th floor of the Prentice Women's Hospital, 250 E. Superior St. Valet parking is available through the hospital driveway. Discounted rates for both valet parking and self parking in the garage at 222 E. Huron St. are available for patients, family and visitors.

## What Can I Expect During the Procedure?

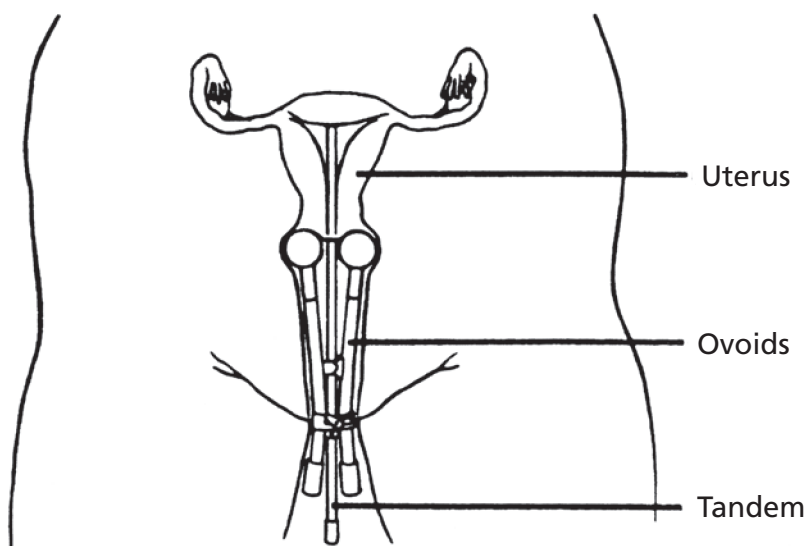
Once you are in your hospital room, an IV (into the vein) line will be started in your arm. Fluids and medicines will be given through the IV during the procedure. Your nurse will help you put on special stockings to help support your leg circulation during and after the procedure. Your nurse may give you an injection to relax you and make you sleepy. A transporter will arrive with a cart to take you to the operating room.

### ***Fletcher Suit Applicator***

Once you are in the holding area, your nurse will help make you comfortable. Before the procedure, a catheter (tube) will be inserted into your bladder. This will drain the bladder of urine while the applicator is in place.

The applicator, which later will hold the radioactive materials, is inserted into your vagina by your radiation therapy doctor. The applicator is made up of a hollow metal tube (tandem) and round plastic discs (ovoids.) Spacers fit over the tandem and will be placed into your vagina, below your cervix. The end of the applicator may extend slightly outside your vagina and you may have gauze packing placed inside your vagina around the applicator to hold it in place. (See Figure 1 below.)

**Figure 1**



Fletcher applicator in proper position.

After the applicator is inserted, X-rays will be taken to check for proper placement of the applicator.

When you are back in your room, the actual radioactive materials will be placed into the tandem and ovoids by your radiation therapy doctor. The length of time that the applicator will remain in place varies from several hours to several days. Your radiation therapy doctor will talk with you about the exact length of time.

### **What Can I Expect During my Hospital Stay?**

You will be in a private room, as it is necessary to limit the amount of radiation exposure to visitors and caregivers. The following safety rules are required:

- No one under the age of 18 should visit.
- No one who is pregnant should visit.
- Each visitor should stay no longer than 30 minutes a day.

- Visitors should sit as far away from you as possible. A corner of the room is the best place for them to sit when they visit.

Your nurses must also follow some of these rules. They will plan your care so they can provide you with the greatest amount of attention in the shortest period of time. A call light will be within your reach at all times. Your nurses will check frequently on your progress. It is important to know that you are not radioactive, nor are your body secretions. The only radioactive material is with your applicator.

Once the applicator is in place and the radioactive materials are inserted, you will be expected to lie fairly still until they are removed. Bedrest is necessary to prevent your applicator from slipping out of position or falling out.

You will be able to:

- Raise the head of the bed to a slight 30-degree angle.
- Turn side to side very slowly and lie on your side for 30 minutes at a time.
- Move your arms and legs about freely.

Please note that some movement is possible, and stretching, as described below, is possible. You should perform the following arm and leg stretches 10 times every hour while you are awake. This will prevent muscle weakness and improve circulation. You will be able to do the following stretches while lying on your back:

#### ***Arm Stretches***

- Place arms at your side. Bend them at your elbows and then straighten them.
- Place arms at your side. Raise them toward the ceiling and then lower them.

#### ***Leg Stretches***

- To exercise your ankles and feet, move your toes toward you, then away from you.
- Press the backs of your knees firmly against the bed for 3 seconds and then relax.
- Now, rotate your ankles in a circular manner.
- Keeping one leg straight, bend the other knee and slide your heel on the bed toward you. Do not lift your foot off the bed.

While resting, you may note some mild discomfort such as vaginal fullness and pressure from the catheter, packing and applicator. Pain medication will be provided, and you should ask for it whenever you feel uncomfortable.

Your nurse will check the position of the applicator every day. A white vaginal drainage is not uncommon. So you can feel as clean and fresh as possible, your nurse will provide you with a basin of water to wash yourself every day. Do not wash below the waist. Your nurse will change soiled linen as needed.

Some radiation side effects, such as diarrhea, may happen at this time. To prevent this, you will be on the low-fiber diet. A low-fiber diet decreases diarrhea by reducing further irritation to your bowels. Your doctor will order medicine that will prevent bowel movements. If you need to have a bowel movement, you will be placed on a bedpan.

You will need to drink several glasses of water, juices or other liquids each day. This will help prevent bladder infections.

Before the applicator is removed, you may receive medication to prevent discomfort. Your radiation therapy doctor will then remove all radioactive material, the catheter and applicator. Then you will receive a vaginal douche and an enema. You should expect to be weak from bedrest. Your nurse will be there to help you when you first get up.

After planning a follow-up visit with your doctor, you will leave the hospital that same day or the next. Follow-up visits usually are 1 to 2 weeks later. Remember, the radiation precautions described above are no longer a concern since the radioactive material has been completely removed. You are not radioactive and neither are your body secretions. You can touch anyone or anything and others can touch you without becoming radioactive.

### **At Home: Will My Physical Activity Be Limited?**

After you go home, normal activity can be resumed. This includes returning to work, driving, shopping, housework, light exercise and community activities. Showers, baths and shampooing are permitted. You should not use tampons. Your radiation therapy doctor will inform you of when you can resume vaginal intercourse. This usually is after your first follow-up visit, 1 to 2 weeks after your procedure.

#### ***How Can I Care for Myself?***

During radiation therapy, the body uses a lot of energy. Some women feel unusually tired after their procedure. Feelings of weakness or tiredness will go away gradually. You can help yourself during this time by asking less of your body. If you feel tired, limit your activities. Do not feel that you have to do all the things you did before. Try to get more sleep at night and take naps during the day if you can. It is a good idea to ask family members or friends to help with shopping, child care, housework or driving.

After you are at home, you still may feel some of the effects of radiation on your body's normal tissues. Diarrhea or soft, liquid bowel movements can occur for up to 6 weeks after the procedure. Remember, eating the low-fiber diet as described on pages 9 and 10 will help. The dietitian will be able to answer any questions you may have about this diet before and after you leave the hospital. Your doctor can give you a prescription for anti-diarrhea medication. Take this medicine as directed.

You should continue to drink 8 glasses of fluid each day to help prevent bladder infections. Cranberry, apple, peach and pear juices are suggested. Try to avoid fluids such as caffeine and alcohol, which will irritate the bladder. You should notify your doctor right away if you note signs and symptoms of a bladder infection, such as burning upon urinating, change in color or odor of urine, or fever.

A vaginal discharge is expected for 3 to 4 weeks after your procedure. This is not unusual, so there is no need to worry. Use sanitary pads or panty-liners to absorb the discharge. Do not use tampons. You should watch for changes in the amount, color and odor of the discharge.

Lukewarm sitz baths or tub baths also are suggested to cleanse and soothe the outer vaginal area. Extreme temperatures of water should be avoided in this area. (Directions on how to do a sitz bath are found below.) Do **not** use Vaseline<sup>®</sup>. Use only creams prescribed by your radiation doctor.

### ***Sitz Bath***

You may notice dry or itchy skin in your vaginal area. You must not rub or scratch any sensitive spots. A special bath called a sitz bath can help. Your doctor can prescribe medicine to add to the bath that will soothe this area and reduce itching.

Assemble sitz bath supplies in your bathroom. These include a vinyl quart bag with attached hose and clamp, and a basin that will fit into your toilet. (Large enough for you to sit in comfortably and securely on the toilet.)

- Close the clamp on the hose and pour one quart of liquid into the bag.
- Close the top of the bag and hang on a hook or nail 3 feet above your shoulders when sitting on the toilet.
- Place the end of the hose in the front slit of the basin.
- Raise the toilet seat and place the basin in the toilet.
- Secure the end of the hose in the holders at the bottom of the basin.
- Open the clamp and fill the basin half full, then close the clamp. Sit in the basin and then open the clamp.
- Allow the solution to run continuously until the bag is empty. The basin has a slit in the front so the solution will drain into the toilet.
- When all the solution is gone, gently pat your skin dry with a soft towel.

### **Vaginal Dilation and Sexual Intercourse**

Radiation can affect the normal tissues of your vagina. There can be some degree of scar tissue and vaginal dryness. This may cause your vagina to shorten and close. Vaginal stretching or dilating 3 or more times a week for one year after the implant must be done. The vagina needs to be kept open so that periodic pelvic exams can be done.



Vaginal dilating can be done in 1 of 3 ways:

- Vaginal intercourse.
- Mechanical dilatation.
- A combination of the above.

Vaginal intercourse can be resumed after your first follow-up visit with your doctor's approval, usually 2 to 3 weeks after the implant is removed.

Remember, your sexual partner will not be exposed to cancer or radiation. No radiation will remain in your body once the implant is removed. Since radiation may cause vaginal dryness, the use of a water-based lubricant may make intercourse more comfortable. Remember, do **not** use Vaseline® or lotions as a lubricant. They have an oil base and do not flow out of the body freely.

If you are not going to have intercourse at least once a week, the use of a vaginal dilator is advised. Your radiation doctor will prescribe a vaginal dilator or obturator. During your follow-up visit, your doctor and nurse will show you how to use the dilator.

***To use the dilator:***

- Apply a water-based lubricant to the rounded end of the dilator.
- Lie on your back in bed with your knees bent and slightly apart. If you prefer, you may use the shower or sit on the toilet.
- Insert the rounded end of the dilator into your vagina as gently and deeply as you can without discomfort.
- Let it stay in place for about 10 minutes.
- Withdraw and clean the dilator with hot, soapy water, rinsing well.

You may have spotting and some discomfort following intercourse or the use of the obturator. This is not a cause for concern. As the tissues begin to stretch, the spotting and discomfort should end. Your doctor may also prescribe a vaginal hormone cream to help tissue healing. Your doctor will tell you how often you may need to use this cream.

## **How Can I Eat to Regain My Strength?**

It is very important to eat a balanced diet after the procedure. As a result of your radiation treatment, you may have a loss of appetite. Even if you have no desire for food, it's important that you make every effort to keep your protein and calorie intake high. If you are not eating well, you may not have all the strength you need for healing and rebuilding new tissues. Try to remember that your diet is one area where you can control what's happening to your body. You can improve the course of your therapy by eating well.



The list below suggests ways to perk up your appetite when it's poor and make the most of it when you do feel like eating.

- Eat frequent small meals during the day rather than 3 large ones.
- Eat when you are hungry, even if it is not mealtime.
- Create a pleasant dining atmosphere; use candlelight, quiet music, brightly colored table settings, or whatever helps you to feel good while eating.
- Keep healthful snacks close by for nibbling when you get the urge, drink large amounts of liquids. You may find that you are able to do this more easily than eating solid foods. Try to get the most from each glassful by having drinks enriched with powdered milk, eggs, honey or liquid supplements.

### Follow-Up Appointments

Regular follow-up exams are very important for any woman who has received internal radiation. The doctor will want to watch you closely for several months to be sure the cancer has been completely destroyed. Regular follow-up exams include a physical exam, pelvic exam, Pap test and other lab tests.

### Notes:

---

---

---

---

As a result of your internal radiation treatment, you may experience diarrhea. A low-fiber diet decreases diarrhea by reducing further irritation to your bowels. This diet also allows you to eat foods that are easily digested and non-irritating. It also will help you control gas. The following chart describes a list of foods that are allowed and those you should avoid if diarrhea is a problem. Also included are some helpful suggestions to control diarrhea. If you are not having diarrhea, there is no need to restrict your diet.

Food Group	Foods Allowed	Foods To Avoid
<b>Dairy products</b>	Milk (not chocolate), buttermilk, cottage cheese, low lactose milk and milk products, soybean products.	Strong cheese; if milk causes gas, these foods should be avoided.
<b>Poultry, fish and eggs</b>	Ground or well-cooked tender beef, ham, veal, lamb, pork, poultry, fish, oysters, shrimp, lobster, clams. Organ meats, eggs (except fried).	Tough, fibrous meat with gristle; pickled, spiced or fried foods.

<b>Food Group</b>	<b>Foods Allowed</b>	<b>Foods To Avoid</b>
<b>Breads and cereals</b>	White bread, toast, rolls, Italian/French bread, Melba toast, farina, corn flakes, cream of wheat, puffed rice, Rice Krispies®, strained oatmeal and noodles.	Whole grains and cereal, whole wheat bread, bran, cracked wheat and oat bran.
<b>Vegetables</b>	Cooked beets, carrots, green beans, wax beans, pumpkin, squash and peeled potatoes.	Peas, parsnips, collard greens, broccoli, cabbage, Brussels sprouts, cauliflower, turnips; lima, dry and baked beans; eggplant, raw tomatoes, corn, potato skins and zucchini.
<b>Fruits</b>	Canned fruits: peeled pears, apples, apricots, cherries, pineapple and applesauce. Fresh fruits: ripe bananas, raw apple (peeled), sectioned oranges and grapefruit, and fruit juice from above fruits.	Raw fruit with skin or seeds; raisins, prunes and dried fruit.
<b>Desserts</b>	Plain cake, plain iced cookies, custard, gelatin, tapioca, vanilla ice cream, plain soft puddings, sherbet, plain hard candy, marshmallows, Italian ice and popsicles.	Any cake made with chocolate, nuts, coconut, seeds, berries, or restricted fruits. Avoid desserts made with milk or milk products if milk causes diarrhea or cramps.
<b>Beverages</b>	Juices from allowed fruits, carbonated beverages (allow them to lose some carbonation before drinking), fruit-flavored drinks and milk as tolerated.	Beverages containing caffeine, and prune juice.
<b>Fats</b>	Butter, margarine, cream and mayonnaise (small quantity).	Nuts, olives, fried foods and salad dressings.
<b>Soups</b>	Clear broth, bouillon and cream soups.	Highly seasoned soups.

### *Helpful Suggestions for Preventing Diarrhea*

- Eat small, frequent meals and sip liquids slowly.
- Avoid foods that are extreme in temperature. Very hot or cold foods may aggravate diarrhea. Foods served at room temperature are better digested.
- Add nutmeg to foods. This spice can help decrease the rate at which foods are digested.
- If diarrhea persists, include foods high in potassium, such as bananas, baked potatoes, halibut and asparagus tips.
- Bananas, rice, applesauce, tapioca and toast can help stop diarrhea.
- If gas or cramping is a problem, avoid carbonated drinks, beer, chewing gum, dried beans, greens, vegetables of the cabbage family and excessive sweets.
- It is important to replace fluids that may be lost when diarrhea occurs. Drink at least 1 quart of fluid each day. Bouillon, apple juice, weak tea and gelatin are good sources of fluid. Carbonation tends to aggravate diarrhea.
- You may note a short-term intolerance of milk and milk products; if so, you might try low-lactose milk products. These are found at most major grocery stores. Look for Lactaid® milk or sweet acidophilus milk. You also can ask your pharmacist for Lactaid® tablets (to be taken before eating foods containing lactose), or Lactaid® drops (for making your own low-lactose milk).

### *Radiation Dictionary*

- **Applicator:** A small container of radioactive material placed in or near cancer.
- **Bladder:** A hollow organ in the body that stores urine.
- **Bowel:** The part of the body, also called the intestines, that removes wastes from the body in the form of bowel movements.
- **Cervix:** The lower, narrow end of the uterus.
- **Dilator:** A tube-like device inserted into the vagina for a specific amount of time to keep it from closing.
- **Douche:** A stream of water or a medicated solution to clean the vagina and cervix.
- **External Radiation Therapy:** Radiation therapy using a machine that is focused on the cancer site.
- **Fallopian Tubes:** Tubes on each side of the uterus that transport the egg cells from the ovaries to the uterus.
- **Internal Radiation Therapy:** A type of radiation therapy where a radioactive material is placed inside the body close to the cancer site.
- **Ovaries:** The pair of female reproductive glands in which the eggs are formed. The ovaries are located on each side of the uterus.

- **Pelvis:** The lower part of the abdomen located between the hip bones. Organs in the female pelvis include the uterus, vagina, ovaries, fallopian tubes, bladder and rectum.
- **Rectum:** The last 5 to 6 inches of the bowel leading to the outside of the body.
- **Sitz Bath:** A bath taken in a sitting posture.
- **Uterus:** The part of the body in which an unborn baby develops. Also called the womb, it is small, hollow and shaped like a pear.
- **Vagina:** The muscular canal extending from the uterus to the outside of the body.

## Health Information Resources

For more information, visit one of Northwestern Memorial Hospital's Health Learning Centers. These state-of-the-art health libraries are located on the third floor of the Galter Pavilion and on the first floor of the Prentice Women's Hospital. Health information professionals are available to help you find the information you need and provide you with personalized support at no charge. You may contact the Health Learning Centers by calling 312-926-LINK (5465) or by sending an e-mail to [hlc@nmh.org](mailto:hlc@nmh.org).

For additional information about Northwestern Memorial Hospital, please visit our Web site at [www.nmh.org](http://www.nmh.org).

*Para asistencia en español, por favor llamar a el departamento de representantes para pacientes al 312-926-3112.*

Northwestern Memorial is an equal opportunity employer that welcomes, respects and serves with dignity all people and does not discriminate, including in hiring, or employment, or admission, or access to, or treatment in its programs or activities on the basis of race, color, gender, national origin, religion, disability, handicap, age, Vietnam or other veteran status, sexual orientation or any other status protected by relevant law. To arrange for TDD/TTY, auxiliary aids and foreign language interpretation services, call the Patient Representative department at 312-926-3112, TDD number 312-926-6363. Issues related to the Rehabilitation Act of 1973 should be directed to the director of Employee Relations or designee at 312-926-7297.

Developed by: Gynecology/Gynecologic Oncology Nursing with the Department of Gynecology/Gynecologic Oncology