High Dose Rate (HDR) Intracavitary Brachytherapy for Treatment of Gynecologic Cancer

This information will help you prepare for your high dose rate (HDR) intracavitary (in-tra-cav-i-tar-e) brachytherapy (brak-e-ther-ah-pe) for treatment of cervical or endometrial cancer at Memorial Sloan Kettering (MSK).

Read through this resource at least once before your brachytherapy procedure and use it as a reference in the days leading up to your treatment. Bring it with you every time you come to MSK, including for your treatments. You and your healthcare team will refer to it throughout your care.

About the Female Reproductive System

Your reproductive system includes your ovaries, fallopian tubes, uterus, cervix, and vagina (see Figure 1).

Figure 1. The female reproductive system (front view)
Your uterus is located in your lower abdomen (belly) between your bladder and rectum (see Figure 2). The lower, narrow end of your uterus is called your cervix. Your cervix connects your uterus to your vagina, which leads to the outside of your body. Your ovaries and fallopian tubes are attached to the upper part of your uterus.

Figure 2. The female reproductive system (side view)

**About HDR Intracavitary Brachytherapy**

Brachytherapy is a type of radiation therapy. Radiation therapy kills cancer cells by making it hard for them to multiply.

With HDR brachytherapy, a radioactive source is placed inside or close to the tumor(s). This means that the tumor gets a large amount of radiation, while nearby healthy tissue gets less radiation and is less likely to be damaged. Iridium-192 is the radioactive source that will be used during your brachytherapy.

With HDR intracavitary brachytherapy, the radioactive source is placed into a cavity (open space) in your body, such as your uterus.

Most people have both HDR intracavitary brachytherapy and external beam
radiation therapy.

**What to Expect**

Before your first HDR intracavitary brachytherapy treatment, your doctor will place an applicator into your uterus through your vagina. The applicator will hold the radioactive source during your treatments. The applicator itself isn’t radioactive, and you won’t be radioactive between treatments.

The applicator has 2 parts:

- **Tandem**: a thin metal tube with a closed end.
- **Ring**: a thin metal tube with a closed end that’s circular in shape.

The procedure to place the applicator will be done in the operating room while you’re asleep. For more information about the applicator placement and your first treatment, read the “During Your Procedure” section.

The applicator will stay in your uterus between your first and second treatments. You will stay in the hospital overnight while the applicator is in place. For more information about what to expect while you’re in the hospital, read the “In Your Hospital Room” section.

Your second treatment will be the day after your first treatment. After your second treatment, the applicator will be removed and you will be able to leave the hospital. For more information about your second HDR brachytherapy treatment and applicator removal, read the “Your HDR Intracavitary Brachytherapy Treatments” section.

The same procedure and treatment schedule will be repeated the following week for your third and fourth HDR brachytherapy treatments.

You will have a total of 2 applicator placements separated by 1 week. After each applicator placement, you will receive 1 HDR brachytherapy treatment right away and 1 HDR brachytherapy treatment on the next day. You will have a total of 4 HDR intracavitary brachytherapy treatments.

**Your Role on Your Radiation Therapy Team**

You will have a team of healthcare providers working together to provide the
right care for you. You’re part of that team, and your role includes:

- Arriving on time for your procedures.
- Asking questions and talking about your concerns.
- Telling someone on your radiation therapy team when you have side effects.
- Telling your doctor or nurse if you’re in pain.
- Caring for yourself at home.
  - Quitting smoking, if you smoke. If you want to quit, call our Tobacco Treatment Program at 212-610-0507.
  - Drinking liquids as instructed by your healthcare team.
  - Eating the foods suggested by your healthcare team.
  - Maintaining your weight.
Before Your Procedure

The information in this section will help you prepare for your procedure.

Read through this section when your procedure is scheduled and refer to it as your procedure date gets closer. It contains important information about what you need to do before your procedure. Write down any questions you have and be sure to ask your doctor or nurse.

Preparing for Your Procedure

You and your healthcare team will work together to get ready for your procedure. Help us keep you safe during your procedure by telling us if any of the following statements apply to you, even if you aren’t sure.

- I take a blood thinner. Some examples are aspirin, heparin, warfarin (Coumadin®), clopidogrel (Plavix®), enoxaparin (Lovenox®), dabigatran (Pradaxa®), apixaban (Eliquis®), and rivaroxaban (Xarelto®). There are others, so be sure your doctor knows all the medications you’re taking.

- I take prescription medications (medications prescribed by a doctor), including patches and creams.

- I take over-the-counter medications (medications I buy without a prescription), including patches and creams.

- I take dietary supplements, such as herbs, vitamins, minerals, and natural or home remedies.

- I have a pacemaker, automatic implantable cardioverter-defibrillator (AICD), or other heart device.

- I have sleep apnea.

- I have had a problem with anesthesia (medication to make you sleep during your procedure) in the past.

- I am allergic to certain medication(s) or materials, including latex.

- I am not willing to receive a blood transfusion.

- I drink alcohol.

- I smoke.
I use recreational drugs.

About Drinking Alcohol
The amount of alcohol you drink can affect you during and after your procedure. It’s important to talk with your healthcare providers about how much alcohol you drink. This will help us plan your care.

- Stopping alcohol suddenly can cause seizures, delirium, and death. If we know you’re at risk for these complications, we can prescribe medication to help prevent them.
- If you drink alcohol regularly, you may be at risk for other complications during and after your procedure. These include bleeding, infections, heart problems, and a longer hospital stay.

Here are things you can do to prevent problems before your procedure:

- Be honest with your healthcare provider about how much alcohol you drink.
- Try to stop drinking alcohol once your procedure is planned. If you develop a headache, nausea, increased anxiety, or can’t sleep after you stop drinking, tell your healthcare provider right away. These are early signs of alcohol withdrawal and can be treated.
- Tell your healthcare provider if you can’t stop drinking.
- Ask us any questions you have about drinking and your procedure. As always, all of your medical information will be kept confidential.

About Smoking
People who smoke can have breathing problems when they have a procedure. Stopping even for a few days before your procedure can help. If you smoke, your nurse will refer you to our Tobacco Treatment Program. You can also reach the program at 212-610-0507.

About Sleep Apnea
Sleep apnea is a common breathing disorder that causes a person to stop breathing for short periods of time while sleeping. The most common type is obstructive sleep apnea (OSA). With OSA, the airway becomes completely blocked during sleep. It can cause serious problems during and after your
Please tell us if you have sleep apnea or if you think you might have it. If you use a breathing machine (such as a CPAP) for sleep apnea, bring it with you the day of your procedure.

**Within 30 Days of Your Procedure**

**Presurgical Testing (PST)**

Before your procedure, you will have an appointment for presurgical testing (PST). The date, time, and location of your PST appointment will be printed on the appointment reminder from your surgeon’s office.

You can eat and take your usual medications the day of your PST appointment.

During your appointment, you will meet with a nurse practitioner (NP) who works closely with anesthesiology staff (doctors and specialized nurses who will give you anesthesia during your procedure). Your NP will review your medical and surgical history with you. You will have tests, including an electrocardiogram (EKG) to check your heart rhythm, a chest x-ray, blood tests, and any other tests needed to plan your care. Your NP may also recommend you see other healthcare providers.

Your NP will talk with you about which medications you should take the morning of your procedure.

It’s very helpful to bring the following things to your PST appointment:

- A list of all the medications you’re taking, including prescription and over-the-counter medications, patches, and creams.
- Results of any tests done outside of MSK, such as a cardiac stress test, echocardiogram, or carotid doppler study.
- The name(s) and telephone number(s) of your doctor(s).

**Complete a Health Care Proxy Form**

If you haven’t already completed a Health Care Proxy form, we recommend you complete one now. A health care proxy is a legal document that identifies the person who will speak for you if you’re unable to communicate for yourself. The
person you identify is called your health care agent.

If you’re interested in completing a Health Care Proxy form, talk with your nurse. If you have completed one already, or if you have any other advance directive, bring it to your next appointment.

10 Days Before Your Procedure
Stop Taking Vitamin E

If you take vitamin E, stop taking it 10 days before your procedure. Vitamin E can cause bleeding. For more information, read our resource Common Medications Containing Aspirin and Other Nonsteroidal Anti-inflammatory Drugs (NSAIDs) (www.mskcc.org/pe/common_meds).

7 Days Before Your Procedure
Stop Taking Certain Medications

If you take aspirin, ask your doctor if you should keep taking it. Aspirin and medications that contain aspirin can cause bleeding. For more information, read our resource Common Medications Containing Aspirin and Other Nonsteroidal Anti-inflammatory Drugs (NSAIDs) (www.mskcc.org/pe/common_meds).

Stop Taking Herbal Remedies and Other Supplements

Stop taking herbal remedies and other dietary supplements 7 days before your procedure. If you take a multivitamin, ask your doctor or nurse if you should keep taking it. For more information, read our resource Herbal Remedies and Cancer Treatment (www.mskcc.org/pe/herbal_remedies).

2 Days Before Your Procedure
Stop Taking Certain Medications

Stop taking nonsteroidal anti-inflammatory drugs (NSAIDs), such as ibuprofen (Advil®, Motrin®) and naproxen (Aleve®), 2 days before your procedure. These medications can cause bleeding. For more information, read our resource Common Medications Containing Aspirin and Other Nonsteroidal Anti-inflammatory Drugs (NSAIDs) (www.mskcc.org/pe/common_meds).
1 Day Before Your Procedure

Note the Time of Your Procedure

A clerk from the Admitting Office will call you after 2:00 PM the day before your procedure. If you’re scheduled for your procedure on a Monday, you will be called on the Friday before.

The clerk will tell you what time you should arrive at the hospital for your procedure. They will also tell you where to go on the day of your procedure. This will be the following location:

Presurgical Center (PSC) on the 6th floor
Memorial Hospital
1275 York Avenue (between 67th and 68th Streets)
New York, NY 10065
B elevator to the 6th floor

If you don’t receive a call by 7:00 PM, please call 212-639-5014.

If you have any changes in your health or you need to cancel your procedure for any reason, call your radiation oncologist.

Follow a Clear Liquid Diet

You will need to follow a clear liquid diet starting after you eat breakfast on the day before your procedure. Aim to finish your breakfast before 10:00 AM. After 10:00 AM, start the clear liquid diet.

A clear liquid diet includes only liquids you can see through. Examples are listed in the “Clear Liquid Diet” table. While you’re on this diet:

- Don’t eat any solid foods.
- Try to drink at least 1 (8-ounce) glass of clear liquid every hour while you’re awake.
- Drink plenty of liquids other than water, coffee, and tea. Don’t drink more than 2 cups (16 ounces) of liquids with caffeine.
- Don’t drink sugar-free liquids unless you have diabetes.
For People with Diabetes

If you take insulin or another medication for diabetes, you may need to change the dose. Ask the doctor who prescribes your diabetes medication what you should do the day before and the morning of your procedure. Tell your doctor you will be drinking a sugar-free liquid diet the day before your procedure.

While you’re following a clear liquid diet, drink only sugar-free clear liquids and check your blood sugar level often. If you have any questions, talk with your healthcare provider.

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<thead>
<tr>
<th>Clear Liquid Diet</th>
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<tr>
<td><strong>Drink</strong></td>
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<td><strong>Sweets</strong></td>
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<td><strong>Drinks</strong></td>
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The Night Before Your Procedure

- Take the medications that your nurse or doctor told you to take the night before your procedure. Take them with a small sip of water.
- Shower using soap and water the night before or the morning of your procedure.
Instructions for eating and drinking before your procedure

- Do not eat anything after midnight the night before your procedure. This includes hard candy and gum.
- Between midnight and up until 2 hours before your scheduled arrival time, you may drink a total of 12 ounces of water (see figure).
- Starting 2 hours before your scheduled arrival time, do not eat or drink anything. This includes water.

The Morning of Your Procedure

Take Your Medications

If your doctor or NP instructed you to take certain medications the morning of your procedure, take only those medications with a sip of water. Depending on what medications you take, this may be all, some, or none of your usual morning medications.

Things to Remember

- Don’t put on any lotion, cream, deodorant, makeup, powder, perfume, or cologne.
- Remove nail polish and nail wraps.
- Don’t wear any metal objects. Remove all jewelry, including body piercings. The equipment used during your procedure can cause burns if it touches metal.
- Leave valuable items (such as credit cards, jewelry, or your checkbook) at home.
- If you wear contact lenses, wear your glasses instead. Wearing contact lenses during your procedure can damage your eyes.
What to Bring

☐ A pair of loose-fitting pants, such as sweatpants.

☐ Your breathing machine for sleep apnea (such as your CPAP), if you have one.

☐ Your Health Care Proxy form, if you have completed one.

☐ A case for your personal items (such as eyeglasses, hearing aid(s), dentures, prosthetic device(s), wig, or religious articles), if you have one.

☐ This guide. Your healthcare team will use this guide to teach you how to care for yourself after your procedure.

You may also want to bring the items below. You will be lying in bed most of the time that you’re in the hospital. Having ways to pass the time will be helpful.

☐ Your cell phone and charger.

☐ Your portable music player.

☐ Things to read.

☐ Other electronic devices and chargers.

Where to Park

MSK’s parking garage is located on East 66th Street between York and First Avenues. If you have questions about prices, call 212-639-2338.

To reach the garage, turn onto East 66th Street from York Avenue. The garage is located about a quarter of a block in from York Avenue, on the right-hand (north) side of the street. There is a pedestrian tunnel that you can walk through that connects the garage to the hospital.

There are also other garages located on East 69th Street between First and Second Avenues, East 67th Street between York and First Avenues, and East 65th...
Once You’re in the Hospital

You will be asked to state and spell your name and date of birth many times. This is for your safety. People with the same or similar names may be having a procedure on the same day.

Get Dressed for Your Procedure

When it’s time to change for your procedure, you will get a hospital gown, robe, and nonskid socks to wear.

Meet With Your Nurse

You will meet with your nurse before your procedure. Tell your nurse the dose of any medications (including patches and creams) you took after midnight and the time you took them.

Your nurse may place an intravenous (IV) line into one of your veins, usually in your arm or hand. If your nurse doesn’t place the IV, your anesthesiologist will do it later once you’re in the operating room.

Meet With Your Anesthesiologist

Your anesthesiologist will:

- Review your medical history with you.
- Ask you if you’ve had any problems with anesthesia in the past, including nausea or pain.
- Talk with you about your comfort and safety during your procedure.
- Talk with you about the kind of anesthesia you will receive.
- Answer questions you have about your anesthesia.

Prepare For Your Procedure

Once your nurse has seen you, 1 or 2 visitors can keep you company as you wait for your procedure to begin. When it’s time for your procedure, your visitor(s)
During Your Procedure

You will either walk into the operating room or be taken in on a stretcher. A member of the operating room team will help you onto the operating bed. Compression boots will be placed on your lower legs. These gently inflate and deflate to help blood flow in your legs.

Once you’re comfortable, your anesthesiologist will give you anesthesia through your IV line and you will fall asleep. You will also get fluids through your IV line during and after your procedure.

Once you’re fully asleep, you will have a breathing tube placed through your mouth into your windpipe to help you breathe. You will also have a urinary (Foley®) catheter placed through your urethra into your bladder to drain urine from your bladder.

Applicator Placement

When they’re ready to start the procedure to place the applicator, your doctor will gently dilate your cervix. They will place a small tube called a cervical stent into your cervix. Once the cervical stent is in place, the tandem will be placed into the stent. Then, the ring will be placed over the tandem, around your cervix.

The applicator will be held in place by 2 small balloons placed in your vagina and filled with water. The balloons will also push your bladder and rectum away from the applicator. This will help lower the amount of radiation they get during your treatments.

Once the applicator is in place, a magnetic resonance imaging (MRI) scan will be done to make sure it’s in a good position. Your doctor will also use the scan to plan your treatment, including the dose (amount) of radiation that will be used. This will only take a couple of minutes. You will still be asleep.

HDR Brachytherapy Treatment

Once your treatment plan is ready, you will be brought to a separate treatment...
The position of the applicator will be checked again using x-ray images.

For your treatment, the applicator will be connected to a machine that holds the radiation source. The radiation source will travel from the machine into the applicator to deliver the treatment.

Once your treatment is complete, the source will move back into the machine and the applicator will be disconnected from the machine.

After your treatment, you will be brought to the Post-Anesthesia Recovery Unit (PACU).
After Your Procedure

The information in this section will tell you what to expect after your procedure, both during your hospital stay and after you leave the hospital. It will also tell you what to expect during your HDR brachytherapy treatments. Write down any questions you have and be sure to ask your doctor or nurse.

In the Post-Anesthesia Care Unit (PACU)

When you wake up after your procedure, you will be in the Post Anesthesia Care Unit (PACU).

A nurse will be monitoring your body temperature, pulse, blood pressure, and oxygen levels. You will get oxygen through a thin tube that rests below your nose called a nasal cannula. You will have compression boots on your lower legs. You will also have a Foley catheter in your bladder to monitor the amount of urine you’re making.

You may have some pain after your procedure. Your doctor and nurse will ask you about your pain often. You will have a pain pump called a patient-controlled analgesia (PCA) device. PCA uses a computerized pump to deliver pain medication into your IV line. For more information, read our resource Patient-Controlled Analgesia (PCA) (www.mskcc.org/pe/pca). If your pain isn’t relieved, tell your doctor or nurse.

There isn’t anything radioactive in your body between your treatments. You can have visitors and don’t have to be alone. Your visitors can see you briefly in the PACU, usually within 90 minutes after you arrive there. A member of the nursing staff will explain the guidelines to them.

After your stay in the PACU, you will be taken to your hospital room.

In Your Hospital Room

While the applicator is in place, you will need to lie still on your back in bed. You must stay in bed until the applicator is removed. You will be able to raise the head of your bed a little bit, about 20 degrees. You won’t be able to move your hips or legs, but you can wiggle your toes. You will be able to move your arms and upper body.
We understand that lying still and flat in bed can be challenging. You will be able to read and use your phone and other electronic devices. You can also have visitors.

If you need help while you’re in your room, use your call bell to let a nurse know. The call bell is by the side of your bed. Your nurse will show you how to use the call bell system.

Your nurse will give you an incentive spirometer and teach you how to use it. They will ask you to do deep breathing exercises using your incentive spirometer. This helps your lungs expand, which prevents pneumonia. For more information, read our resource How to Use Your Incentive Spirometer (www.mskcc.org/pe/incentive_spirometer).

You will follow a low-residue diet while you’re in the hospital. A low-residue diet has low amounts of fiber, which will help you have fewer bowel movements. You will also get medication to keep you from having a bowel movement. You may want to avoid eating foods that cause gas or make you feel bloated. You will eat all of your meals in bed.

The Foley catheter will stay in your bladder until your applicator is removed.

**Your HDR Intracavitary Brachytherapy Treatments**

For your HDR brachytherapy treatments, your bed will be moved from your room to the Brachytherapy Suite in the Department of Radiation Oncology. You will talk with your doctor before or after your treatment.

In the Brachytherapy Suite, your radiation therapist will check the position of the applicator using x-ray images. Once they know the applicator is in a good position, your radiation therapist will connect the applicator to the machine that holds the radiation source.

Once everything is ready, your radiation therapist will leave the room while you receive your treatment. The room has a video camera, microphone, and speaker so your radiation therapist can see, hear, and talk to you at all times.

During your treatment, the radiation source will move from the machine into the applicator. You won’t feel any pain or discomfort during your treatment. You
won’t see or feel the radiation. You may hear a clicking sound from the machine.

Your treatment will take about 10 to 20 minutes.

After your treatment is done, the radiation source will move back into the machine. Your radiation therapist will come into the room and disconnect the applicator from the machine.

**Applicator Removal**

Right after your second and fourth treatments (the treatments you’re awake for), your nurse will give you medication to make you relaxed and sleepy. Once you’re relaxed, the applicator and Foley catheter will be removed and you will be brought back to your hospital room.

After the applicator is removed, you may feel some cramping in your uterus and pressure in your vaginal area. These feelings usually go away over a couple of hours. Ask your nurse for pain medication if you’re uncomfortable.

You will be discharged from the hospital the same day.

**At Home**

After your treatments, you aren’t radioactive and don’t need to follow any radiation precautions.

You can go back to moving around and eating normally as soon as you leave the hospital.

You may have cramping for a day after your treatment. You can take an over-the-counter pain reliever such as ibuprofen (Advil® or Motrin®) or acetaminophen (Tylenol®) as needed. **Don’t take aspirin, products that contain aspirin, or vitamin E for at least 1 week after your procedure.** Your doctor or nurse will tell you when it’s safe to start talking them again.

Follow the guidelines below after you leave the hospital.

- Walk around and do light activities on the days following your treatment.
- Don’t lift anything heavier than 10 pounds (4.5 kilograms) for 6 weeks following your treatment.
- You can shower after you’re discharged from the hospital, but don’t take baths or swim in a pool for 6 weeks following your treatment.
- You can drive as long as you aren’t taking any prescription pain medications that make you sleepy.
- Don’t put anything inside your vagina (such as tampons and douches) or have vaginal intercourse for 6 weeks following your treatment.

**Side Effects of HDR Intracavity Brachytherapy**

You may have side effects after your treatment. Talk to your nurse or doctors if you have questions about side effects.

**Vaginal Scarring and Loss of Elasticity**

After HDR brachytherapy, your body will start to heal. Your vaginal walls may start to stick together from scar tissue. Your vaginal tissue may also become less elastic. These changes can cause pain and discomfort and make things such as vaginal exams and vaginal intercourse more difficult.

Using a vaginal dilator can help keep scar tissue from forming. It also helps your vaginal tissue stay elastic. Vaginal dilator therapy is a form of physical therapy you can use throughout your life. It’s very important for you to use vaginal dilator therapy after treatment. It will:

- Allow your healthcare provider to do a more thorough vaginal exam.
- Make vaginal exams more comfortable for you.
- Keep your vagina from becoming too narrow.
- Keep your vagina more elastic.
- Allow you to have vaginal sex with less discomfort.

Your nurse will give you a vaginal dilator kit and explain how and when to use it. For more information, read our resource *How to Use a Vaginal Dilator* ([www.mskcc.org/pe/vaginal_dilator](www.mskcc.org/pe/vaginal_dilator)).
**Vaginal Bleeding**
You may have mild vaginal bleeding (spotting) after going home. If you have heavy vaginal bleeding (bleeding that requires more than 3 pads per day), call your nurse or doctor.

Use sanitary pads for vaginal bleeding. Don’t use tampons.

**Vaginal Dryness**
You may have vaginal dryness after your treatment. The dryness may last for the rest of your life. To help, you can use a vaginal moisturizer.

Vaginal moisturizers help to increase moisture in your vagina and improve tissue quality. They can be used up to 3 to 5 times a week. You can use them at any time, not only before or during sexual activity.

Over-the-counter vaginal moisturizers don’t have any hormones. You can buy them online or at your local pharmacy without a prescription. See below for information about types of vaginal moisturizers and how to use them.

**Hydrating Moisturizers**

- **HYALO GYN®**
  - This moisturizer can be applied both inside of your vagina and on your vulva.
  - You can buy HYALO GYN online at [www.hyalogyn.com](http://www.hyalogyn.com).

- **Replens™ Long-Lasting Vaginal Moisturizer**
  - This vaginal moisturizer can be inserted into your vagina with a disposable applicator or applied to your vulva.
  - You can buy Replens Long-Lasting Vaginal Moisturizer at your local pharmacy.

**Soothing (natural oil) moisturizers**

- **Carlson® Key–E® Suppositories**
  - These are suppositories (solid medications that dissolve) that you insert into your vagina with a disposable applicator. They work best if you use
them at bedtime.

- You can buy Carlson Key-E suppositories online at www.carlsonlabs.com
- Natural oils, such as vitamin E or coconut oil

If you need more help or support, contact the Female Sexual Medicine and Women’s Health Program at 646-888-5076.

**Vaginal or Anal Irritation**

Your vaginal or anal area may become irritated after your treatment. Avoid rubbing the area, because it can lead to more irritation.

To help with irritation:

- Use a warm, wet cloth to cleanse the area.
- Use a sitz bath. A sitz bath is a warm, shallow bath that cleanses your perineum (the area between your vulva and anus). You can buy a plastic sitz bath that fits over your toilet at your local pharmacy. Don’t take a regular bath for 6 weeks after your treatment.
- Use a peri-bottle (small plastic bottle with a squirt tip) to wash your vaginal area, anal area, or both with warm water. You can buy a peri-bottle at your local pharmacy.

**Call Your Doctor or Nurse if You Have:**

- A temperature of 100.4° F (38°C) or higher
- Chills
- Vaginal bleeding requiring more than 3 pads per day
- Cloudy or foul smelling urine
- Blood in your urine
- Watery bowel movements (diarrhea) more than 3 times in 1 day that isn’t helped by medication
- No bowel movements in 3 days
- Bleeding from your rectum
- Nausea or vomiting that keeps you from eating or drinking
- Pain in your abdomen or pelvis that isn’t helped by medication
- Shortness of breath (difficulty breathing) that’s new or getting worse
- A faster heartbeat than usual
- A cough that’s new or getting worse
- Leg pain or cramping that’s new or getting worse
- Swelling in one or both legs, calves, ankles, or feet that’s new or getting worse

**Contact Information**

If you have any questions or concerns, talk with a member of your healthcare team. You can reach them Monday through Friday from 9:00 AM to 5:00 PM at the numbers listed below.

Radiation oncologist: ___________________________
Phone number: ___________________________

Radiation nurse: ___________________________
Phone number: ___________________________

After 5:00 PM, during the weekend, and on holidays, call ____________ and ask for the radiation oncologist on call. If there’s no number listed, or you’re not sure, call 212-639-2000.

For more resources, visit [www.mskcc.org/pe](http://www.mskcc.org/pe) to search our virtual library.