

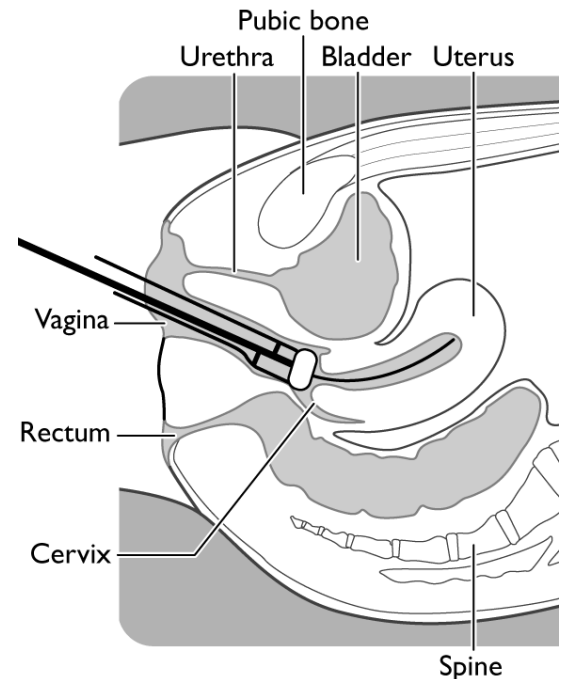
## Tandem and Ring or Tandem and Ovoid HDR Brachytherapy

### High-dose-rate radiation

This handout explains HDR brachytherapy using tandem and ring or tandem and ovoid. This is done to treat cancer in the uterus, cervix, or vagina.

### What are tandem and ring or tandem and ovoid HDR brachytherapy?

- **Brachytherapy** (*bray-key-THAIRuh-pee*) is a type of treatment for cancer. The doctor inserts radioactive implants directly into cancer tissue.
- **HDR** stands for high dose rate. In HDR brachytherapy, a full dose of radiation is given over a few minutes rather than hours or days.
- **Tandem and ring** and **tandem and ovoid** are applicators. They are used in some types of brachytherapy to deliver radiation directly to the cancer cells within the uterus, cervix, or vagina.
  - A **tandem** is a small metal tube. It is placed inside your uterus to provide treatment to that area, if you have not had a hysterectomy.
  - A **ring** is a thin tube that forms a circle on one end.
  - An **ovoid** is a round hollow metal holder. It is placed next to the cervix for some patients with cervical cancer.



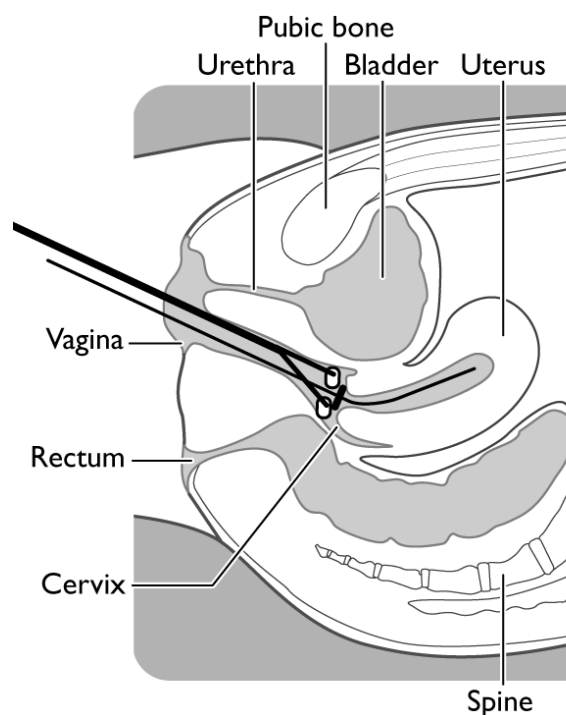
Tandem and ring applicator

## How does it work?

During treatment, a radioactive substance is placed inside an applicator. The applicator is then inserted into the treatment area. It stays in place for several minutes until the correct amount of radiation is given.

Most patients have 5 treatments 1 to 2 times a week. Each treatment takes about 3 hours.

You may or may not also receive *external beam radiation* treatments on the other days of the week. Ask your doctor if you have questions about this.



*Tandem and ovoid applicator*

## How do I prepare?

- Tell your doctors if you are taking a blood-thinning medicine, or if you usually have to take antibiotics before having your teeth cleaned.
- If you have diabetes, talk with your diabetes care provider about adjusting your diabetes medicine before the treatment.
- Arrange for a responsible adult to drive you home after your treatment.

## Treatment Day

### At Home

- Do **not** eat or drink liquids for 4 hours before your treatment. (See our handout, “Sedation for Your Radiation Treatment.”)
- Take your prescription medicines in the morning with **only** a small sip of water.

### At the Hospital

Before treatment:

- You will change into a hospital gown.
- We will place a small *intravenous* (IV) needle into an arm vein. This will be used to give you medicine during the treatment.

## **During Treatment**

- You will lie on your back with your legs raised.
- Your nurse will monitor your vital signs and give you medicines.
- We will give you IV medicines to make you comfortable. They may also make you sleepy.
- The doctors will do a pelvic exam to see which shape and size of applicator will work for you.
- We will clean the area around your genitals with an anti-bacterial soap.
- We will place a soft rubber tube into your bladder to drain urine.
- The doctor will place the applicator inside your vagina and uterus.
- You may have some cramping and feel pressure. This should be relieved by IV medicine. Tell us if you are uncomfortable.
- We will then place wet gauze inside your vagina to hold the applicator in place. We will gently move your bladder and rectum so they receive the lowest possible dose of radiation.
- We will take X-rays of the treatment area. These X-rays help your doctor see where to place the applicator. They are also used for computer treatment planning, which will take about 30 to 45 minutes.

The computer treatment planning ensures you receive the exact dose of radiation needed. The computer will calculate how long it will take to deliver the correct dose of radiation to the tumor site.

- Once the computer provides your treatment plan:
  - Your doctors and nurses will go into another room. We will be able to see you on a monitor and talk with you using an intercom.
  - We will give you the dose of radiation using a remote-controlled machine. The machine is connected to the applicator with a thin hose-like tube. The radiation source is passed through this tube into the applicator. It will stay there until the prescribed dose of radiation has been given.
- You will not feel the radiation treatment as it is delivered.

## **After Your Treatment**

- We will remove the applicator, gauze, and IV.
- You will be able to go home after the comfort medicines have worn off.
- A responsible adult may drive you home.

## Self-care at Home

- Your memory may be “fuzzy.” This is a short-term side effect from the medicines.
- For 24 hours:
  - Do **not** drive.
  - Do **not** drink alcohol.
  - Do **not** use machinery.
  - Do **not** travel by yourself.
  - Do **not** sign legal papers or make important decisions.
  - Do **not** be responsible for children, pets, or an adult who needs care.
- Do not use tampons or douche after your treatment.
- You may resume your normal diet.
- You will not be radioactive after your treatment.

Watch for these signs and follow these tips:

- You may have some burning or irritation when you urinate for the first time. This is caused by the applicator.
- For 1 to 2 days:
  - Drink 8 to 12 glasses (8 ounces each) of fluids each day.
  - You will have some spotting or bleeding from your vagina. The bleeding should **not** be more than a regular menstrual period (see “When to Call,” below).
- You may have some uterine cramping after your treatment. You may want to try taking ibuprofen or naproxen. Follow the dose directions on the bottle.
- It is OK to have sexual intercourse between treatments, but it may be uncomfortable.

## When to Call

- Call the nurse at 206.606.7650 before taking aspirin for pain or fever.
- Call your doctor if you have:
  - Fever higher than 101°F (38.3°C)
  - Pain that is not relieved with pain medicine
  - Bleeding as much or more than a normal menstrual period
  - Burning with urination or blood in your urine for more than 24 hours

## Your Treatment Schedule

Date	Time	Doctor	Clinic

### Questions?

Seattle Cancer Care Alliance (SCCA): Weekdays, 8 a.m. to 5 p.m., call 206.606.7318

After hours, and on weekends and holidays, call the Paging Operator at 206.598.6190 and ask to page the Radiation Oncology Resident on-call.