

Breast Brachytherapy

Your medical team recommends brachytherapy as part of your breast cancer treatment. It is a way to give radiation therapy to people who have breast cancer removed with a lumpectomy. The goal is to get rid of any cancer cells that may remain after surgery to remove the lump from your breast.

Brachytherapy has benefits over radiation to the entire breast:

- It takes a shorter time to complete.
- There is less damage to your healthy cells.

How does it work?

A few days after your surgery, a surgeon will insert a device into the space where the cancer was. The device is a tube with several branches at one end and a small balloon at the other. It is called a balloon catheter. The surgeon fills the balloon with saltwater, or saline solution, to fit snugly in the space. The inflated balloon catheter stays in place until the treatments are complete.

At each treatment, the radiation team puts tiny radioactive particles into the catheter. The particles are often called seeds. The seeds go through the catheter into the balloon. The radiation from the seeds kills the cells closest to where the cancer was. Catheter placement, the treatments, and catheter removal all happen in the Radiation Oncology clinic on the first floor of the cancer hospital. The entire process takes six to eight days.

Placing the Catheter

You will need someone else to drive on the day the catheter is placed. Most patients feel little or no discomfort during the process.

1. A nurse or assistant will clean the skin on your breast with a solution that kills germs.
2. You will get a shot to numb your breast where the catheter goes in.
3. The surgeon will make a small cut, less than ½ inch, to place the catheter. The surgeon will use ultrasound imaging to help guide the catheter to the correct place.

4. The surgeon fills the balloon with a saltwater solution so it fits snugly into the space where the tumor was.
5. Some of the catheter tube remains outside the breast. Bandages will hold it in place and cushion it.
6. You will have a CT scan to make sure the balloon catheter is in the correct place.

Caring for the Catheter

Please follow these tips about caring for the catheter:

Keep the catheter and the bandage dry. You must take sponge baths only until the catheter is removed.

Do not remove the red caps on the catheter. You will get an extra red cap in case one falls out.

Some clear or reddish fluid may drain from the wound. You do not need to change the bandage unless it becomes soaked. If this happens, follow the directions on the Home Care after Breast Brachytherapy factsheet.

You will get a prescription to prevent infection. You should take the antibiotics until your cancer care team removes the catheter.

What happens during the treatments?

The radiation treatments start the next morning after the catheter is in place. You will have two treatments every day for five days—a total of 10 treatments.

The radiation oncology team will give you a schedule for your treatments when they place the catheter. Each treatment takes about 30 minutes:

1. A nurse will remove the bandage over the catheter.
2. The physicist will connect the ends of the catheter to a computer-controlled machine. Your radiation doctor verifies the connection. The catheter inserts the radiation seed into the balloon.
3. After a few minutes, the machine removes the seed. No radiation remains in your breast between treatments.
4. After the treatment, the physicist disconnects the machine. The nurse then applies a new bandage over the catheter.

Removing the Catheter

After the 10 treatments, your radiation doctor will deflate the balloon catheter. It comes out through the same cut used to place it. Most people feel little or no discomfort when the catheter is removed.

After the catheter comes out, a radiation oncologist will cover the cut with bandages called Steri-Strips. Please follow these care instructions:

- Do not allow the Steri-Strips to get wet for 48 hours. After that, you may shower.
- Do not let the cut soak in water such as the bathtub, swimming pool, or hot tub for 2 weeks.
- The Steri-Strips fall off on their own after about 2 weeks. Do not pull on the Steri-Strips. You may trim away loose edges with scissors.

Side Effects

Many patients have some of these side effects during and after brachytherapy:

- Swelling, bruising, and mild pain in the breast during the process
- Mild skin redness, flaking and peeling near the catheter during and after the process
- Mild scar tissue after the process
- Slightly smaller breast size or change in the appearance of the breast after the process

Other side effects may happen in a few patients:

- Mild infection
- Small blood vessels showing on the skin near the catheter
- Firmer breast tissue and thicker skin near the catheter
- Skin color changes near the catheter
- Red, swollen, or tender area in the breast

These side effects are very rare:

- Severe scar tissue
- Severe infection
- Long-term breast pain
- Another cancer due to radiation therapy

When to Call the Doctor

Call right away if you have any of these signs on the treated breast:

- Moderate or severe skin redness
- Enlarging area of skin redness
- Swelling, warmth, or severe pain
- Fever higher than 100.3° F

Also, call if you have any of these in the catheter area:

- Sudden drainage of a large amount of fluid
- Creamy white or yellow drainage
- Foul odor

Monday–Friday, 8 a.m.–5 p.m.: Call 801-581-2396 and ask for your radiation doctor.

After hours, weekends, and holidays: Call 801-587-7000 and ask for the surgeon on call.