

**Please follow all of your physician instructions. Your physician may ask you to report the following:**

- Warmth, redness or swelling of the treated breast
- Moderate to severe breast pain
- Fever higher than 100.5 degrees
- A significant amount of drainage from the insertion site (clear, red fluid or purulent (pus-like) fluid)
- If the skin on the treated breast becomes moist and peels even several weeks after treatment

**Schedule follow up appointments:**

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

**Phone List:**

Please call if you have any questions

Radiation Oncology Nurse \_\_\_\_\_

Surgical Nurse \_\_\_\_\_

**› Electronic Brachytherapy**  
*What to expect for early stage breast cancer*

Just as breast cancer surgery has gone from a radical mastectomy to a lumpectomy, so has radiation therapy evolved from whole breast irradiation to Accelerated Partial Breast Irradiation using Electronic Brachytherapy. By now you and your surgeon may have decided on your course of treatment: lumpectomy followed by radiation therapy.

*"Radiation has always been a little scary to me, but the fact that the technicians could stay in the room with me during treatments increased my comfort level tremendously." -Sandra W.*



Electronic Brachytherapy (eBx) is a form of accelerated partial breast irradiation (APBI) that delivers radiation from inside the patient close to the cancer. Like conventional external radiation treatment, APBI is used as follow-up treatment to surgery to reduce cancer recurrence. *eBx* replaces the traditional six and a half weeks of daily treatments with just 10 treatments within 5 days.

## What Is Brachytherapy?

Brachytherapy is radiation therapy delivered over a short distance. Instead of using external radiation from outside the body, brachytherapy delivers the dose directly inside the body where the cancer was removed or next to the existing tumor. Brachytherapy is most often performed as an outpatient procedure.

Unlike alternative brachytherapy procedures which use radioactive isotopes, the Axxent System uses a non-radioactive electronic source which only emits radiation when the power is on.

## What Is Electronic Brachytherapy (eBx)?

*eBx* utilizes a miniaturized X-ray source to deliver high dose radiation internally at low energy, allowing treatment to be delivered in a minimally shielded environment, thus making *eBx* accessible to more clinical settings.

## Step 1 - Lumpectomy

The tumor is removed by your surgeon using a procedure called lumpectomy. If *eBx* is determined appropriate for your treatment, the Axxent balloon will be implanted into the breast cavity after the entire tumor is removed.

## Step 2 – The Axxent Balloon Applicator Placement

The Axxent balloon applicator will be inserted into the tumor cavity through a small incision in the skin. The balloon is placed while the patient is under local anesthetic. Once in place, the balloon is inflated with saline to fill the cavity. After placement, an image is taken to confirm proper positioning. The balloon shaft will remain on the outside of the breast. It is thin and flexible so it can be easily tucked into a bra.



*Patient being treated with the Axxent Electronic Brachytherapy System*

## Step 3 - Treatment Planning

A treatment plan will be designed to deliver an appropriate amount of radiation to treat the tissue around the tumor cavity. The miniaturized Axxent *eBx* X-ray source delivers the same dose as radioactive isotopes to the target, but reduces the radiation exposure to surrounding healthy tissue and organs.

## Step 4 - Radiation Treatments

Radiation treatments are done on an outpatient basis so no hospital stay is needed. There will be a total of 10 treatments given over the course of five days; two treatments are given per day. During treatment, the balloon applicator will be connected to the Axxent *eBx* System which turns the radiation on and off. Each treatment will take approximately 15 minutes to complete.

## Step 5 - Removal of the Applicator

On the fifth day, after the final treatment is complete, the balloon applicator will be deflated and removed. No stitches should be necessary.

## Potential Side Effects

- Mild tenderness or discomfort
- A small amount of drainage from the balloon applicator site
- Mild breast redness, swelling or bruising

## Balloon Applicator Care

- Do change the dressing at home if it becomes saturated or if directed by your physician
- Keep the caps on the end of the applicator
- Wear a support bra 24 hours a day, even while sleeping
- Do not shower during the week of treatment – sponge baths only