



what
lumpectomy
begins...

MammoSite completes



Radiation therapy from within

Your most important decisions...

Today, more and more women with early-stage breast cancer are able to treat their cancer effectively and preserve their breasts through an option called **breast conservation therapy** (BCT). BCT begins with a **lumpectomy**, the surgical removal of the cancerous tumor. The lumpectomy is generally followed by 7 weeks of **external beam radiation therapy** (EBRT), during which radiation is directed at the whole breast. This combination of surgery and radiation works well to fight breast cancer.

However, some women aren't comfortable with the idea of radiation going through healthy breast tissue in order to treat the affected area. Now, there is an internal treatment option—and it **only takes 5 days to complete**.

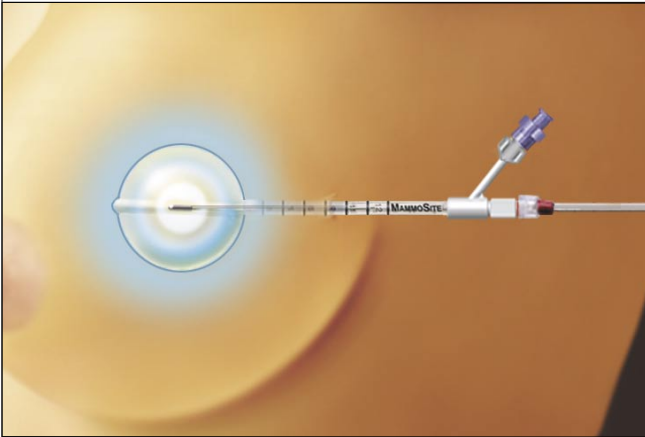
...are made from within

MammoSite is a form of **partial breast irradiation**. It works by delivering radiation from inside the **lumpectomy cavity** (the space that is left after the tumor is removed) directly to the tissue surrounding the cavity where cancer is most likely to recur. Radiation therapy with MammoSite can be completed in 5 days, allowing you to get back to your life.

This booklet contains important information about MammoSite. However, it is not intended to replace a discussion with your doctor. As with any medical procedure, talk to your doctor and carefully consider all treatment options before deciding.

How does MammoSite work?

MammoSite is a small, soft balloon attached to a thin catheter (tube) that is placed inside the lumpectomy cavity. In order to deliver radiation, a tiny radioactive source, called a seed, is placed within the balloon by a computer-controlled machine.



Because the seed is inside the balloon, radiation is directed only to the area of your breast where cancer is most likely to recur. When used as **primary therapy**—the only form of radiation following a lumpectomy—you would receive treatment twice a day for 5 days.

If your doctor feels that whole breast external beam radiation is more appropriate for you, MammoSite may be used as **boost therapy**. Boost therapy combines MammoSite with external beam radiation, to deliver additional radiation directly to the area of the breast where cancer is most likely to recur. In this case, you would receive MammoSite treatment for 1 to 2 days.

What are the benefits of MammoSite?

MammoSite offers many advantages in the delivery of radiation therapy:

- Radiation is delivered to the area where it is needed most
- Radiation to healthy tissue is minimized, reducing the potential for side effects
- Placement of the MammoSite balloon is simple
- The treatment is given on an outpatient basis, so no hospital stay is required
- Patient satisfaction has been overwhelmingly positive¹
- A clinical study has shown cosmetic results to be good/excellent in 88% of women treated²
- Radiation can be delivered in 5 days



What should you expect during treatment with MammoSite?

MammoSite treatment is a 2-stage process: balloon placement and radiation delivery.

MammoSite balloon placement

After the **surgeon** removes your tumor, an uninflated MammoSite balloon is gently placed inside the lumpectomy cavity through a small incision in your breast. A portion of the catheter will remain outside of your breast (*Figure 1*). The balloon can be placed during your lumpectomy surgery or up to 10 weeks after surgery in a separate procedure.



Fig. 1 Uninflated MammoSite balloon is placed into lumpectomy cavity.

Once in place, the balloon is inflated with a saline solution to fit snugly into your lumpectomy cavity. The balloon remains inflated for the entire time you are receiving radiation therapy (*Figure 2*).



Fig. 2 MammoSite balloon is inflated to fill lumpectomy cavity.

After the MammoSite balloon is placed, your breast is bandaged and you may go home.

MammoSite radiation delivery

Next, you will visit a **radiation oncologist**—a doctor specializing in treating cancer with radiation—who will take images of the MammoSite balloon in your breast and determine the amount of radiation needed. Once your treatment plan is established, MammoSite therapy will begin.

During radiation therapy, you will visit the radiation oncology office twice a day for 5 days. The portion of the MammoSite catheter that remains outside of your breast will be connected to a computer-controlled machine (*Figure 3*).



Fig. 3 MammoSite is connected to a computer-controlled machine, which delivers a radioactive seed into the balloon.

A tiny radioactive seed will travel from the machine, through the catheter, and into the inflated balloon inside your breast. The seed will remain in the balloon and deliver radiation for about 10 minutes. The seed will then be drawn back into the machine. The machine is disconnected from the MammoSite catheter and your treatment session will be complete. No radiation will remain in your breast between treatments or after the final treatment.

Usually on the same day as your last radiation session, the MammoSite balloon will be deflated and easily removed.

Frequently asked questions

Q. Why may breast conservation therapy with MammoSite be a good treatment option for me?

A. The use of partial breast irradiation following lumpectomy is rapidly becoming a preferred method for minimizing radiation exposure to healthy tissue. MammoSite is a simple means of delivering safe and effective partial breast irradiation with minimal side effects and good cosmetic results.³ In addition, radiation therapy with MammoSite only takes 5 days to complete.

Q. Am I a candidate for MammoSite?

A. Physicians generally recommend MammoSite for appropriate early-stage breast cancer patients. There are many factors that your doctor will need to consider when determining if MammoSite is right for you. As with any medical procedure, talk to your doctor and carefully consider all treatment options before deciding.

Q. What are the side effects of this type of treatment?

A. MammoSite has been carefully tested in clinical trials. Following treatment, some women did experience minor breast-related side effects, such as redness, bruising, and breast pain. All of these are common side effects of breast surgery and/or radiation therapy and usually last for only a short time. You may also have some drainage from the catheter insertion site, which is normal and will decrease over time.

Q. Are there any risks in exposing family members to radiation while the MammoSite balloon is implanted?

A. No. Because the radioactive seed is present in your breast during treatment sessions only, no radiation remains in your body between treatments or after the final treatment. The MammoSite balloon and the liquid inside of it are not radioactive in any way.

"I looked at all the options, and I chose MammoSite."

-Patrice

"My life is really busy. To say you're too busy for your cancer treatments is crazy, but still, I didn't want all that time spent in radiation therapy. But I didn't want a mastectomy either."

"I'm an attorney, and I'm used to doing research. So that's what I did. I looked at all the options. MammoSite let me keep my breast, it only took 5 days, and it targeted the area right around the tumor. I said, 'That's what I want!'"



Frequently asked questions *(continued)*

Q. Will MammoSite limit my ability to receive other types of treatments in the future?

A. Other treatments, such as chemotherapy or hormonal therapy, may be prescribed following treatment with MammoSite. Many factors will influence whether additional radiation therapy is possible, but treatment with MammoSite may not exclude the use of radiation in the future.

"I didn't want my only choices to be mastectomy or driving 200 miles each day for 6 weeks."

-Gloria

"It wasn't an easy choice. All that driving, all that time...was concerning me. So my doctor asked me if I would be interested in a new kind of radiation therapy, one that took a lot less time. It was

MammoSite. I spent 5 days in the Ochsner Clinic in New Orleans for the treatment. That was 3 years ago, and I've been cancer-free ever since."



Q. How long will the MammoSite balloon be implanted? How long does the radiation treatment last?

A. The MammoSite balloon will typically be implanted for 7 to 10 days. Radiation therapy with MammoSite will usually last no more than 5 days.

Q. Are there any special requirements for the care of MammoSite during treatment?

A. Your doctor will provide instructions on caring for MammoSite during the course of therapy.

Q. Will health insurance cover the cost of the procedure?

A. Radiation therapy with internal radiation is an accepted treatment for breast cancer and is covered by most insurers. Specific coverage for MammoSite will depend on your individual healthcare plan.

Q. How can I find a doctor who currently uses MammoSite?

A. A list of doctors who are currently using MammoSite is available at: www.mammosite.com.

The testimonials included are from women who were treated with MammoSite. These women have allowed us to use their words and pictures, because they believe that their experiences might be of interest to other women who have breast cancer. Results vary from patient to patient.



For more information about MammoSite,
ask your doctor or visit the MammoSite website at
www.mammosite.com



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3. Food and Drug Administration. *FDA Clears New Device for Radiation Treatment for Breast Cancer.* Rockville, Md: National Press Office; May 6, 2002. Talk Paper T02-23.

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