

Understanding  
*your choices*  
In Breast Cancer  
Treatment



It's About  
*Choices*



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oday, more and more cancers are found at their earliest, most treatable stages. Not only does this improve chances for survival, it also means the availability of more treatment options.

If you have been diagnosed with early-stage breast cancer, you might be eligible for an advanced form of radiation therapy with the SAVI® applicator. SAVI only delivers radiation where it's needed most, meaning your treatment can be completed with fewer side effects in as little as 2–5 days.\*<sup>2</sup>

SAVI was developed so more women could choose breast conservation therapy without a major interruption in their work and family life. Talk to your doctor to see if you are a candidate for radiation therapy with SAVI.



**“The most appealing thing to me is that SAVI directs the radiation right to where the cancer was. I think women will choose SAVI over traditional treatment because it takes so little time and has minimal impact on your physical ability to carry on with life.”**

**Judy D.**  
Fountain Hills, AZ

# Evolution of *5-day Radiation Therapy*

## **Mastectomy vs. Breast Conservation Therapy**

Twenty years ago, the standard treatment for women diagnosed with breast cancer was a mastectomy (removal of the entire breast). Since then, thanks to technological advances in detection combined with new treatment approaches, most women now have the option to save their breast by choosing a treatment called breast conservation therapy (BCT).

BCT involves the removal of the tumor (lumpectomy), followed by radiation therapy. After decades of research, physicians agree that BCT is as effective as mastectomy in decreasing the risk of local recurrence.<sup>1</sup>

## **Whole Breast Radiation vs. Partial Breast Radiation**

In the past, the only option for radiation as part of breast conservation therapy was whole breast radiation, which uses an external beam to deliver radiation to the entire breast and requires 6-7 weeks of daily treatments. However, women may experience side effects as a result of excessive radiation exposure to healthy tissue, as well as the skin, ribs, heart and lungs. In addition, the extended treatment schedule can significantly disrupt a woman's life, whether it is interference with family, the cost of missed work, or the difficulty of traveling to a medical facility every day for several weeks.

Accelerated partial breast irradiation (APBI) was developed to address these issues. SAVI is a form of APBI known as breast brachytherapy, which delivers radiation from inside the breast. This allows physicians to precisely deliver treatment to the tumor cavity and surrounding tissue.

This results in two significant advantages over whole breast radiation: it spares healthy tissue from unnecessary radiation and reduces treatment time from several weeks to just 2-5 days. Research indicates APBI can be as effective as whole breast radiation in terms of survival and controlling local recurrences.<sup>2</sup>

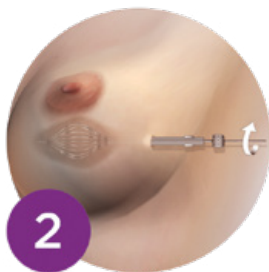


# How the SAVI Applicator Works

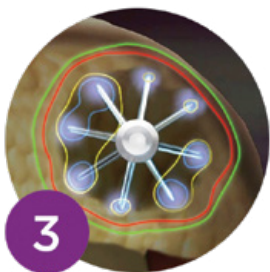
SAVI uses a bundle of tubes (catheters) to deliver radiation from inside the breast. It is inserted into the tumor cavity through a small incision in the breast. The catheters are expanded to fit the size and shape of the cavity, and a tiny radioactive seed is placed in each catheter. This allows every catheter to deliver an individual dose of radiation, so your physician can customize treatment just for you, regardless of the size, shape or location of your lumpectomy cavity.



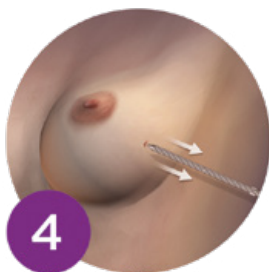
**Placement** – SAVI is gently inserted in a closed position through a small incision, either at the time of surgery or in your physician's office.



**Expansion** – The catheters are then expanded to conform to the shape of your cavity. The ends of the catheters remain outside the breast during treatment for the delivery of radiation. The SAVI device will remain in your breast during the entire course of treatment.



**Radiation Delivery** – Once the device is inserted, you will go to your radiation oncologist to begin treatment, which is delivered twice a day for 5 days or less. The ends of the catheters are connected to a device—called an HDR afterloader—and a computerized system painlessly delivers a tiny radioactive seed into each catheter. The radiation source is completely removed after each treatment—no radiation remains in your body between treatments.



**Removal** – After your last radiation treatment, your physician will close the device and remove it through the same incision in which it was inserted.

# Frequently Asked Questions

## Is APBI with SAVI effective?

SAVI (Strut Adjusted Volume Implant) is a device used for delivering Accelerated Partial Breast Irradiation (APBI). For appropriately selected patients, research indicates APBI can be as effective as whole breast radiation in terms of survival and controlling local recurrences.<sup>1</sup>

## How do APBI radiation therapy devices like SAVI work?

All breast brachytherapy devices offer the convenience of radiation treatment in 5 days or less for eligible patients. SAVI's multiple catheters and open architecture design allow for the precise delivery of radiation. This precision enables physicians to optimally spare normal tissues, which can improve outcomes and increases the number of women who are candidates for treatment in 5 days or less. You should discuss the benefits of all devices with your physician, who will help determine the best option for you.

## What can I expect during treatment?

Once SAVI is in place, you will visit your radiation oncologist where you will receive a CT scan to confirm that SAVI has conformed to the lumpectomy cavity. Using the CT images, your radiation oncologist and the medical physicist will develop your treatment plan. This typically happens within 48 hours of when SAVI was placed, with your first treatment beginning within the next few days. The device will remain in your breast during this time.

Treatment takes place twice a day over 2–5 days. Each treatment fraction will be 6 hours apart and lasts approximately 5–10 minutes. During treatment, a computer-controlled machine is connected to the ends of the catheters



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**“SAVI is exceptional for the working professional with a busy schedule. As a business owner, I did not have time for six weeks of radiation treatments nor could I afford to have any side effects. This fit my schedule and life style because it was painless, over and done!”**

**Betty G.**  
Irving, TX

remaining outside of your breast. The machine painlessly places a tiny radioactive seed into each catheter. Radiation does not remain in your body between treatment sessions. A dressing is applied between treatments to help prevent movement or infection.

Following your last treatment, your physician will close the bundle of catheters and gently remove it through the same incision in which it was inserted. Your physician will dress the incision and you are free to return to your daily activities.

### **How will the device impact my daily life during treatment?**

SAVI remains in the breast during the entire course of treatment, so patients must refrain from showering. However, the device is carefully secured with gauze to minimize movement between treatments, and many women report minimal disruption to their daily lives. While some women choose to take time off from work and other activities, others report that they were able to carry on their normal schedules during the 2–5 days of treatment.

### **How soon can I return to my normal routine?**

Most women find it possible to resume their normal daily activities immediately following treatment. Be sure to follow physician's orders regarding follow-up appointments or additional treatments.

### **What are the side effects of treatment with SAVI?**

Following treatment, the most common side effects are redness, bruising and discomfort. These do not occur in all patients and are typical side effects associated with any type of radiation therapy. Several studies show that the SAVI applicator's ability to customize the radiation dose reduces the chances that these side effects will occur.<sup>3</sup> You should talk to your doctor about the risks and benefits of treatment with various APBI methods.



# ADDITIONAL RESOURCES

## **American Cancer Society**

1-800-ACS-2345 (24 hours)

[cancer.org](http://cancer.org)

## **American Society of Clinical Oncology**

571-483-1300

[asco.org](http://asco.org)

## **National Breast Cancer Foundation**

[nationalbreastcancer.org](http://nationalbreastcancer.org)

## **American Society of Breast Surgeons**

410-992-5470

[breastsurgeons.org](http://breastsurgeons.org)

## **American Brachytherapy Society**

703-234-4078

[americanbrachytherapy.org](http://americanbrachytherapy.org)

## **National Comprehensive Cancer Network**

[nccn.org](http://nccn.org)



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1. Fisher B, Anderson S, Bryant J, et al. Twenty-year follow-up of a randomized trial comparing total mastectomy, lumpectomy, and lumpectomy plus irradiation for the treatment of invasive breast cancer. *N Engl J Med.* 2002;347:1233–41.
2. Polgar C et al. Breast-conserving therapy with partial or whole breast irradiation: Ten-year results of the Budapest randomized trial. *Radiother Oncol.* 2013 Jun 3
3. Khan, Atif J. et al. Three-Fraction Accelerated Partial Breast Irradiation (Apbi) Delivered With Brachytherapy Applicators Is Feasible And Safe: First Results From The Triumph-T Trial. *International Journal of Radiation Oncology.* 2019. Online publication.