

**5-Day Targeted
Radiation Therapy**

Get your life back

after a breast cancer diagnosis...



...in just five days.

Breast cancer isn't easy. Waiting to be diagnosed, going through procedures so that doctors can fully understand your cancer and work out a treatment plan, then getting treatment – it all feels like your life is on hold.

Thankfully, today more cancers are being found at the very earliest stages due to advancements in mammography screening and women advocating for their own health. More women are now able to have these early cancers treated with little or no change in physical appearance and with minimal disruption to their lives.

When your cancer is found early, targeted radiation therapy can often be used following a lumpectomy. It only takes five days and it targets the radiation to the area where the cancer is most likely to recur.¹

Your doctors will carefully evaluate your cancer to determine if you are a candidate for this advanced treatment. You should talk to your doctor about all of the risks and benefits of your treatment. Even qualified candidates may not complete the 5-Day treatment due to varying clinical conditions. In that event, you should consult your physician about alternative treatment options.

What you should know

Do I need a mastectomy?

In the past 30 years, significant advances have been made in the detection and treatment of breast cancer, which makes “breast-conservation therapy” – lumpectomy, rather than a mastectomy – possible. Forward-thinking surgeons began to study lumpectomy followed by radiation therapy as an option to mastectomy over five decades ago. Long-term studies have shown that for early-stage cancers, removing the cancerous tissue and a small rim of tissue surrounding it (lumpectomy), plus radiation therapy, gives women the same survival outcomes as a total breast removal (mastectomy).^{2,3}

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I decided to see three oncologists before I made my decision. One doctor told me an option was 5-Day Radiation Therapy (MammoSite® System). WOW did that sound like the way to go. I had 5 days of radiation, 10 treatments twice a day for 10 minutes – for me, totally painless treatments.

”

Barbara – Unionville, Missouri

Why do I need radiation therapy?

After the cancerous tissue is removed, radiation therapy is used to help keep the cancer from coming back. The intent is to kill any cancer cells that may remain so that they can't multiply.

Radiation therapy uses high-energy beams of radiation on the breast where the cancer occurred, disrupting the growth of the cells. Cancer cells are especially vulnerable to radiation, because unlike normal healthy cells, cancer cells can't repair themselves. Radiation therapy can be given in two primary ways: whole breast irradiation or partial breast irradiation.

What is **targeted radiation therapy** (partial breast irradiation)?

Radiation damages all cells in its path – cancer cells and healthy cells. Because of this, many women and their doctors want to limit radiation treatment only to the area immediately around the cancer, since this is where the cancer is most likely to recur.¹

This targeted therapy uses a high dose of radiation directed right at the area surrounding the lumpectomy cavity to destroy any cancer cells that may remain. Targeted radiation therapy delivered from inside the body – also known as “brachytherapy” – has been used to treat many cancers. Its usage as a treatment for prostate cancer dates back to 1917, and it has been the standard treatment for this type of cancer for several decades. Targeted radiation therapy of the breast limits the exposure of normal, healthy tissue to the radiation. This helps minimize side effects such as skin discoloration and scarring (“cosmesis”), burning, damage to surrounding organs and fatigue, which are more common with whole breast irradiation. Hologic’s 5-Day Targeted Radiation Therapy is the most widely utilized method of accelerated partial breast irradiation (APBI).

Targeted radiation therapy uses a higher dose of radiation limited to the site surrounding the cancer and can be completed in a shorter period of time – typically five days. Conventional external-beam radiation therapy takes five to seven weeks to complete. Also, if you were to have cancer appear in another part of your breast in the future, targeted radiation therapy may allow you to have radiation again – either 5-Day Targeted Radiation Therapy or conventional radiation.

100%

of patients in the initial clinical trial said that they would recommend Hologic’s 5-Day Targeted Radiation Therapy to a friend or family member, or use it again if they had to do it over.⁴

How does **5-Day Targeted Radiation Therapy** work?

Hologic’s 5-Day Targeted Radiation Therapy solutions - MammoSite® targeted radiation therapy system and Contura® multi-lumen balloon - use a small, soft balloon attached to a thin catheter (tube). This balloon is placed inside the lumpectomy cavity. To deliver the required therapy, a tiny source of radiation called a “seed” is placed within the balloon by a computer-controlled machine.

During ten treatments over five days, this “seed” is placed in the balloon, and therapeutic radiation is delivered to the area surrounding the lumpectomy cavity. After each treatment, the “seed” is removed, but the balloon catheter remains for the next treatment.

After five days of treatment, the balloon catheter is removed, and the area is closed with a small bandage. Most women say they feel little or no discomfort either during the treatment or when the device is removed.



“Opting for 5-Day Targeted Radiation Therapy meant that there would be minimal impact on my quality of life.”
Barb - Staten Island, NY

What are the potential side effects?

Clinical trials from 5-Day Targeted Radiation Therapy have shown it to be well tolerated, with mild side effects for a short period of time.⁵ Side effects that occurred most frequently include redness, bruising and breast pain. These do not occur in all patients, but are common side effects of breast surgery and/or radiation therapy. Occasionally, there is also drainage that occurs from the catheter insertion site, which is normal and should go away after a short time.

What to expect with 5-Day Targeted Radiation Therapy after your lumpectomy



1. Placement:

- An uninflated balloon catheter is gently placed inside the lumpectomy cavity through a small incision in your breast.
- The balloon is “inflated” with saline solution so that it fits snugly into the cavity. It remains inflated during your 5-Day treatment.
- A small portion of the catheter remains outside the breast; this is secured to a cushioned gauze pad to prevent movement of the catheter.



2. Treatment:

- Your treatment is planned by a radiation oncologist who will take images of the balloon catheter in your breast and determine the amount of radiation needed.
- During therapy, you will visit the radiation oncologist twice a day for five days. Each treatment takes about 30 minutes.
- During treatment, the portion of the catheter that remains outside your breast is connected to a computer-controlled machine that inserts the radiation “seed” to deliver the therapy. Once therapy is complete, the seed is removed, the catheter is unplugged, and you will be free to return to your normal daily activities.
- **No radiation** remains in your breast in between treatments.



3. Removal:

- After five days of treatment, your balloon catheter will be removed, usually on the last day of treatment.
- The balloon is gently removed through the same incision made to place it. The incision is then closed with a small bandage.
- Many women feel little or no discomfort either during insertion or during removal.

Additional Resources

American Cancer Society
1-800-ACS-2345 (24 hours)
www.cancer.org

American Society of Breast Surgeons (ASBS)
410-992-5470
www.breastsurgeons.org

American Society for Therapeutic Radiology and Oncology (ASTRO)
1-800-962-7876
www.astro.org

Breastcancer.org
www.breastcancer.org

Susan G. Komen Foundation
1-877-GO-KOMEN
(1-877-465-6636)
www.komen.org



“ I’m proud of what I’ve been through. Cancer is not easy. But, for me, going through 5-Day Targeted Radiation was a breeze. It didn’t hurt. It was fast. I was able to keep up with the flow of my life - pick it right back up in just a few days. ”

Gail - Greenwood, SC

Talk to someone who knows

Women from all across the country who have undergone 5-Day Targeted Radiation Therapy have volunteered to talk with other women about their experiences. You can connect with a volunteer via phone or email. Talking with someone who has been treated with this therapy can help you better understand what to expect and help you decide if 5-Day Targeted Radiation Therapy is right for you. You can also log onto our website to read women's stories about their experience with treatment.

To talk to a volunteer:

Call 1-877-566-9866 or visit
www.voicesofmammosite.com

To order more brochures:

Patients: Ask your physician

Facilities: www.breasthealthmarketing.com

References: **1.** King TA, et al. Long-term results of wide-field brachytherapy as the sole method of radiation therapy after segmental mastectomy for Tis, 1,2, breast cancer. *Am J Surg.* 2000;180:299-304. **2.** Veronesi U, et al. Twenty-year follow-up of a randomized study comparing breast-conserving surgery with radical mastectomy for early breast cancer. *NEJM.* 2002;347:1227-1232. **3.** Fisher B, 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. *NEJM.* 2002;347:1233-1241. **4.** Benitez PR, Keisch ME, Vicini F, Stoller A, Scroggins T, Walker A, et al. Five-year results: the initial clinical trial of MammoSite balloon brachytherapy for partial breast irradiation in early-stage breast cancer. *Am J Surg.* 2007;194:456-62. **5.** Keisch M, Vicini F, Kuske R, et al. Initial clinical experience with the MammoSite breast brachytherapy applicator in early-stage breast cancer treated with breast conserving therapy. *International Journal of Radiation Oncology*Biophysics*, Volume 55, Number 2, 1 February 2003, pp. 289-293.

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Breast and Skeletal Health

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