

WHAT TO  
EXPECT  
WITH  
PARTIAL BREAST  
IRRADIATION



COMMUNITY  
CANCER CENTER  
NORTH FLORIDA • LAKE CITY

A large, mature tree with a thick trunk and dense canopy of green and yellow leaves, standing in a vast green field under a clear blue sky. The tree is the central focus, with its trunk and branches spreading out across the middle of the frame. The field is a vibrant green, and the sky is a clear, light blue. The overall scene is peaceful and serene.

THE BEST.

## ***Radiation Therapy in Cancer Treatment***

About half of people treated for cancer will receive radiation therapy at some point during treatment. Focused radiation is used either alone or in combination with other treatments such as chemotherapy and surgery. Radiation therapy is the use of high-energy x-rays to target specific cancer sites and eliminate cancer cells. It works by damaging each cancer cell's ability to reproduce.

Radiation therapy may be used to eliminate cancer or prevent the cancer from returning. Much of the newer, more advanced technology allows the radiation oncologists to better target these tumors while avoiding damage to the normal, healthy cells. Radiation can be delivered either from a machine outside the body (external beam radiation) or from a radiation source implanted permanently or temporarily in the body (brachytherapy).

## ***What is Breast Conservation Therapy?***

Based on twenty-year clinical data, breast conservation therapy (BCT) has become a standard treatment for early stage breast cancer patients. BCT involves removal of the tumor with a small margin of surrounding tissue (lumpectomy) followed by the delivery of radiation therapy. Prior to the development of BCT, patients with early stage breast cancer were faced with the removal of the entire breast (mastectomy) as the main surgical option. It has been clinically proven that BCT is as effective as mastectomy in terms of overall survival.

## ***What is Partial Breast Irradiation?***

Partial Breast Irradiation (PBI) is a standard option for early stage breast cancer patients that involves treating only the lumpectomy cavity plus the neighboring tissue. Traditional radiation therapies for breast cancer patients treat the entire breast over a six to seven week period. Because a higher dose of radiation is delivered to the lumpectomy cavity, PBI is able to accomplish treatment in as little as five days with good local tumor control and excellent cosmetic results in well-selected patients. Accelerated treatment makes it easier for patients who may find traditional daily radiation treatments logistically challenging. There are many methods of administering PBI. The most current method is a technique known as intracavitary brachytherapy.

## ***Who is a Candidate for PBI?***

Not every breast cancer patient is a candidate for PBI. Patient selection is critically important for achieving effective local control with cosmetic results. Appropriate candidates include women who are post-menopausal with small tumors measuring less than 2 cm, with negative lymph nodes and clear surgical margins. Your options will be thoroughly discussed during consultation with your physician, and an individualized plan will be developed specifically for you.

### ***Intracavitary Brachytherapy Devices***

Intracavitary brachytherapy involves the placement of a brachytherapy device in the lumpectomy cavity where the chance of recurrence is the highest. A catheter may be placed during surgery or post-operatively under image-guidance at the treatment site.

There are several state-of-the-art intracavitary brachytherapy devices available. The first and most widely used involves the placement of a balloon catheter directly into the lumpectomy cavity. Some patients may not be appropriate candidates for balloon brachytherapy because their tumor is located too close to the chest wall or skin surface or due to the amount of available breast tissue. There are other devices available that address some of these clinical challenges and make this treatment available to a broader group of patients. An interdisciplinary team including the breast surgeon and the radiation oncologist will determine the specific device to be used based on characteristics of your tumor including the size, shape, and location. For more information about the brachytherapy systems offered please consult your physician.

### ***Meet the Treatment Team***

Your care will be handled by a team of experienced oncology specialists dedicated to providing you and your family with the highest quality of care.

The ***Radiation Oncologist*** is the physician who will develop an individualized plan for how the radiation will be delivered and what doses of radiation are necessary to achieve successful treatment. If you are being treated with PBI, the radiation oncologist will be responsible for the placement of the radiation source at the target site.

The ***Surgeon*** will be responsible for your breast conservation surgery and may place your brachytherapy device either during surgery or post-operatively under image-guidance.

***Radiation Oncology Nurses/Radiation Therapists*** will work closely with you to answer any questions you may have before, during and after treatment and to assist with the management of side effects.

***Dosimetrists*** take the prescription written by the radiation oncologist and create the best treatment plan to ensure the tumor gets enough radiation while sparing the normal tissue.

***Medical Physicists*** work closely with the radiation oncologist during treatment planning and delivery. They make certain that complex treatments are properly customized to each patient.

### ***What to Expect with PBI:***

PBI is a simple outpatient procedure. During an initial consultation with your radiation oncologist your entire medical history will be reviewed and current treatment options discussed. Outlined below is an example of what to expect if it has been determined you are a candidate for PBI.

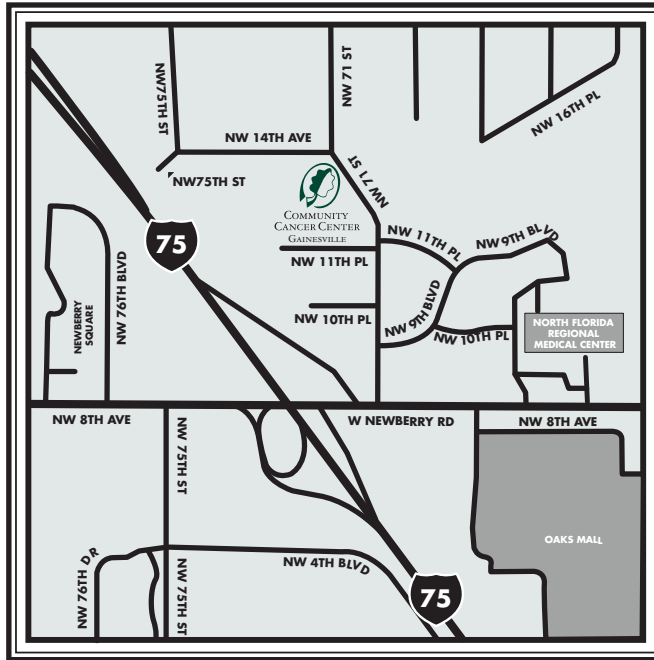
- During your breast conservation surgery or sometime after, the brachytherapy device will be placed into the lumpectomy cavity through a small incision in your breast. A portion of the catheter will remain outside of the breast.
- Usually within 48 hours of the brachytherapy device placement, detailed CT images will be performed for treatment planning purposes.
- During treatments the catheter that remains outside your breast will be connected to a computer-driven device that will push the radioactive source through the catheter to the target site. The radioactive source will be left in place for a predetermined time and then withdrawn. The specific number of treatments will depend on the details of your case with each treatment lasting no longer than 15 minutes.
- After you have completed all of your treatments the catheter will be carefully removed from your breast. This is a simple procedure that will be performed in the clinic.

### ***What are the Side Effects Associated with PBI?***

Before treatment begins you and your physician will discuss some of the potential side effects. Your nurse will be able to work with you and discuss ways to manage these and make you feel more comfortable. The most commonly reported side effects associated with PBI have been redness, bruising and breast pain. There may also be leakage at the incision site where the catheter was placed. This should go away after a short time. If you have any concerns, it is important for you to notify your treatment team.

### ***Will My Insurance Cover PBI?***

We are committed to helping you and your family have complete access to all cancer services. Most insurance plans are accepted. If you have any questions regarding your insurance carrier, please contact our patient insurance specialist.



COMMUNITY  
CANCER CENTER  
NORTH FLORIDA • LAKE CITY

7000 NW 11th Place ■ Gainesville, FL 32605  
*phone:* (352) 331-0900 ■ *fax:* (352) 331-1511

4520 West US Hwy 90 ■ Lake City, FL 32055  
*phone:* (386) 755-0601 ■ *fax:* (386) 755-0602

[www.ccnf.com](http://www.ccnf.com)