

# Part I : Breast Cancer Surgery and Reconstructive Options

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*The Breast Care Center at the Froedtert & The Medical College of Wisconsin Clinical Cancer Center provides an interdisciplinary approach to breast cancer treatment in a state-of-the-art cancer center. Please visit [froedtert.com/cancer](http://froedtert.com/cancer) for more information on our facility.*

Our interdisciplinary team consists of surgeons, radiologists, radiation oncologists, medical oncologists, genetic counselors, pathologists and plastic surgeons. When women consult with one of our breast surgeons, surgical options are discussed and tailored around the patient's cancer and her desires. Breast surgery options include breast conserving surgery (BCS) or mastectomy.

## **Who is eligible for BCS vs. mastectomy?**

BCS, also known as lumpectomy or segmental mastectomy, consists of removing part of the breast to include the cancer with a rim of normal tissue around it. All patients considering lumpectomy meet with a radiation oncologist pre-operatively to discuss radiation therapy, which is typically administered five days a week for six weeks. Almost all patients who undergo BCS require post-lumpectomy radiation therapy to the remaining breast tissue. With the addition of radiation therapy after lumpectomy, 10-year local recurrence rates are reduced to less than 10 percent versus 25 percent to 30 percent without radiation therapy. For patients with invasive disease, the axilla is evaluated with sentinel lymph node biopsy if lymph nodes are not palpable, or if fine needle aspiration of a palpable node is negative or inconclusive prior to undergoing surgery. If the sentinel node biopsy is positive for malignancy, a completion axillary dissection is performed. For patients with biopsy-proven axillary lymph node involvement prior to surgery, an axillary lymph node dissection is performed at the time of breast surgery.

Patients with Stage 0 (ductal carcinoma in situ) and early stage breast cancer (Stage I and II) are usually eligible for BCS. Select Stage III patients may also be eligible for BCS. These patients receive neoadjuvant chemotherapy prior to surgery. If the patient responds well to chemotherapy and the tumor decreases in size, the patient may be a candidate for BCS.

In certain situations, mastectomy is indicated. These cases include: multicentric or extensive disease, locally advanced breast cancer, prior chest wall irradiation, inflammatory breast cancer, inability to achieve negative margins with BCS, inability/refusal to receive post-lumpectomy radiation treatment, and inability to perform BCS with a decent cosmetic result due to a large tumor size relative to breast size.

If a patient is a mastectomy candidate, she is offered the opportunity to meet with a plastic surgeon to discuss post-mastectomy reconstructive options prior to making her final decision regarding her surgical plan. The Women's Health and Cancer Rights Act of 1998 is a U.S. federal law that requires commercial health insurance companies to cover breast reconstruction after

breast cancer surgery at any time and considers surgery on the opposite breast to improve breast symmetry to be part of breast reconstruction.

### **Who should get immediate vs. delayed post-mastectomy reconstruction?**

About half of American women who pursue breast reconstruction do so at the time of mastectomy (immediate reconstruction), while the other half undergo reconstruction several months or even years after mastectomy (delayed reconstruction). Coordination of surgery, chemotherapy and, when necessary, post-mastectomy radiation therapy is carefully arranged at Froedtert & The Medical College through our interdisciplinary Breast Cancer Program team. As a result, more treatment options may be available.

If a woman desires post-mastectomy reconstruction, the most important issue to determine pre-operatively is whether she will require post-mastectomy radiation therapy. Post-mastectomy radiation therapy is typically reserved for women at high risk for locally recurrent disease. Currently, post-mastectomy radiation therapy is recommended to women who have Stage III or Stage IIB disease defined as: (1) tumors 5 cm or larger (T3), (2) > 4 positive axillary lymph nodes, or (3) skin or chest wall involvement. Women with one to three positive axillary lymph nodes are considered for post-mastectomy radiation therapy on an individual basis. If post-mastectomy radiation therapy is planned, reconstruction can be performed in a delayed fashion, usually six to 12 months after radiation therapy is completed, given the side effects of radiation therapy on the skin and subcutaneous tissues. Another option is to perform a delayed-immediate reconstruction, which consists of a temporary implant placement at the time of the skin-sparing mastectomy.

Delayed-immediate reconstruction is also utilized when final pathology results will determine the need for radiation therapy (largely Stage II patients). A skin-sparing mastectomy involves removal of the entire breast through a small incision that typically removes only the nipple-areolar complex, thereby sparing all of the woman's skin. The tissue expander is placed as a temporizing measure to preserve the skin-sparing mastectomy's envelope of skin. If radiation therapy is recommended, the expander may be left in place during radiation and the formal, permanent reconstruction can then be performed approximately six to 12 months after radiation therapy is completed.

If it is determined that radiation therapy is not necessary, the patient may undergo her permanent reconstruction approximately two weeks after initial surgery. For patients who are not anticipated to require post-mastectomy radiation (Stage 0, I and most Stage IIA women), immediate reconstruction after a skin-sparing mastectomy can be performed. Of course, patients may choose not to have breast reconstruction at all. These women can use an external breast prosthesis. This is a silicone or foam breast form that is placed within a bra or contained within a specialized post-mastectomy bra.

Whether a patient desires reconstruction at the time of mastectomy or years later, or even desires revision of a previous attempt at reconstruction, it is virtually always possible to find a reconstructive option that will work for her. Previous limitations like radiation therapy or abdominal surgery are rarely a barrier to reconstruction for women today. These options are available largely as the result of a commitment to coordinated care that is the hallmark of our Breast Cancer Program team.

All post-mastectomy reconstructive options offered at Froedtert & The Medical College will be discussed in Part II of this article series.

### **For More Information or an Appointment**

For more information or to arrange a consultation with one of our breast surgeons, please call 414-805-0505 or 866-680-0505. To arrange a consultation with one of our plastic surgeons specializing in breast reconstruction, please call 414-805-5440.

### References

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