



Breast Cancer Treatment Options

Finding out that you have breast cancer, and then deciding which treatment option is best for you, is not easy. This chart, with information from the National Cancer Institute and BreastCancer.org, may be a helpful guide to the treatment options available, so you can talk to your doctor about which options are right for you.

Treating breast cancer is often a two-part process involving surgery to remove the cancer and post-surgical treatment. This chart outlines the various options that comprise both the surgical and post-surgical portions of your treatment. Your doctor will advise as to which treatment options are available to you, depending on the type and stage of your cancer.

Surgery

There are two main types of surgery for breast cancer: Breast Conserving Surgery and Mastectomy.

1. Breast Conserving Surgery

(removes the cancer but not the whole breast)

Lumpectomy:

Surgery to remove a tumor (lump) and a small amount of normal tissue around it.

Possible Additional Surgery

Patients who are treated with breast-conserving surgery may also have a lymph node procedure in which some lymph nodes are removed for examination. If only a few lymph nodes are removed with a special technique, the procedure is called sentinel node mapping and biopsy. A sentinel lymph node procedure is done through a separate incision most of the time.

Many early-stage breast cancer tumors can be treated with lumpectomy and radiation. Your physician can tell you if this option is right for you.

2. Mastectomy

(removal of breast)

Total (simple) mastectomy:

Surgery to remove the whole breast that has cancer.

Modified radical mastectomy:

Surgery to remove the whole breast that has cancer, as well as many of the lymph nodes under the arm.

Radical mastectomy:

Surgery to remove the breast that has cancer, chest wall muscles under the breast, and all of the lymph nodes under the arm. This procedure is sometimes called a Halsted radical mastectomy.

Possible Additional Surgery:

With a total (or simple) mastectomy, one may also have a lymph node procedure in which some lymph nodes are removed for examination. If only a few lymph nodes are removed with a special technique, the procedure is called sentinel node mapping and biopsy.

If a patient is going to have a mastectomy, breast reconstruction (surgery to rebuild a breast's shape after a mastectomy) may be considered.

Breast reconstruction may be done at the time of the mastectomy or at a future time. The reconstructed breast may be made with the patient's own (non-breast) tissue or by using implants filled with saline or silicone gel.

Post-Surgery Treatments

After your breast surgery and lymph node surgery (if needed) is done, some patients may be given radiation therapy, chemotherapy, or hormone therapy to prevent local (in the remaining breast tissue or chest wall) or systemic (in the rest of your body) recurrence.

Treatment given after the surgery is called adjuvant therapy.

Radiation Therapy

Radiation therapy is a cancer treatment that uses high-energy x-rays or other types of radiation to kill cancer cells or keep them from growing. There are two types of radiation therapy. The way the radiation therapy is given depends on the type and stage of the cancer being treated.

1. External radiation therapy (whole breast) uses a machine outside the body to send radiation toward the cancer site.
2. Internal radiation therapy (partial breast) uses a radioactive substance sealed in needles, seeds, wires, or catheters that are placed directly into or near the cancer site.

1. External Radiation Therapy

The most common type of radiation is known as external beam. In this technique, a large machine called a linear accelerator delivers high-energy radiation to the affected area.

The linear accelerator creates high-energy radiation to treat cancers, using electricity to form a stream of fast-moving subatomic particles. You'll receive this form of radiation as an outpatient in daily sessions over five to seven weeks, depending on your particular situation.

2. Internal Radiation Therapy (partial breast)

MammoSite 5-day Targeted Radiation Therapy is the most widely utilized method of partial breast or internal radiation therapy. A radiation source is placed in the center of a balloon-catheter that is placed inside the lumpectomy cavity. This allows the radiation to be targeted to the lumpectomy bed and a small area of surrounding tissue, the site where cancer is most likely to recur.¹

Using a higher dose than conventional external beam, partial breast irradiation with MammoSite Targeted Radiation Therapy can be completed in a shorter time frame, typically over 5 days.

Because you are receiving less radiation to healthy skin and tissue, and because this radiation is targeted to the area surrounding the lumpectomy cavity, side effects from the radiation may be minimized.

The safety and effectiveness of the MammoSite Radiation Therapy System (RTS) as a replacement for whole breast irradiation in the treatment of breast cancer has not been established.

Chemotherapy

Chemotherapy is a cancer treatment that uses drugs to stop the growth of cancer cells, either by killing the cells or by stopping them from dividing. The way the chemotherapy is given depends on type and stage of the cancer being treated.

Hormone Therapy

Hormones are substances produced by glands in the body and circulated in the bloodstream. Some hormones can cause certain cancers to grow.

Hormone therapy is a cancer treatment that either blocks the production of hormones (aromatase inhibitors) or blocks their target (the hormone receptor site - tamoxifen) and therefore help to reduce systemic recurrence (cancer recurrence in your body, outside the breast).

Reference:

1. King TA, Bolton JS, Kuske RR, 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.