

FACTS ABOUT BREAST CANCER

Breast cancer is the most common type of cancer in American women, according to the American Cancer Society.

- This year, 182,000 women and 2,000 men will learn they have breast cancer.
- Another 68,000 women will learn they have noninvasive (also called in situ) breast cancer.
- Breast cancer can often be cured. About 80 percent of all patients with breast cancer live at least 10 years after their diagnosis.

TREATING BREAST CANCER

The main treatment for breast cancer is surgery. This is often followed by radiation therapy. Some patients will also need chemotherapy and/or hormone blocking therapy.

- Breast conserving surgery is surgical removal of only the cancerous tissue. This operation is called a **lumpectomy** and is usually followed by radiation therapy.
- **Mastectomy** is surgical removal of the breast.
- Both surgeries may be done in combination with tests that check the lymph nodes near the breast for cancer.
- **Radiation therapy** involves delivering X-rays to the breast to destroy cancer cells. Radiation treatment is designed and administered under the care of a radiation oncologist. Radiation therapy works within cancer cells to make them unable to multiply. When these cells die, the body naturally eliminates them. Healthy tissue is able to repair itself in a way cancer cells cannot.
- **Chemotherapy** is medication prescribed by a medical oncologist to destroy cancer cells that may have traveled elsewhere in the body.
- **Hormonal therapy** is medication prescribed by a medical oncologist to block the effects of hormones that may be helping your tumor grow.

EXTERNAL BEAM RADIATION THERAPY

Painless radiation treatments are delivered in a series of sessions Monday through Friday, for three to eight weeks. Each treatment lasts less than 30 minutes. The radiation beam usually comes from a machine called a **linear accelerator or linac**.

- Before beginning treatment, you will be scheduled for a **simulation** to map out the area being treated. This will involve having X-rays and/or a CT scan. You may also receive tiny marks on your skin, like a tattoo, to help the radiation therapist precisely position you for daily treatment.
- The usual course of radiation treats only the breast, although you may need to have nearby lymph node areas treated also.
- **3-dimensional conformal radiotherapy (3D-CRT)** combines multiple radiation treatment fields to deliver very precise doses of radiation to the breast and spare surrounding normal tissue.
- **Intensity modulated radiation therapy (IMRT)** is a form of 3D-CRT that further modifies the radiation by varying the intensity of each radiation beam. Doctors are still studying IMRT for the treatment of some types of breast cancer. Talk to your radiation oncologist for more information.



ACCELERATED PARTIAL BREAST IRRADIATION

External beam radiation therapy to the whole breast for several weeks after a lumpectomy is the standard of care for early-stage breast cancer. In clinical trials, doctors are studying if **accelerated partial breast irradiation (or APBI)** — where radiation is delivered to only part of the breast over four to five days — works as well. These techniques are only available in a few clinics and then only to a select group of patients.

- **Breast brachytherapy** involves placing flexible plastic tubes called catheters or a balloon into the breast. Twice a day for five days, the catheters or the balloon are connected to a brachytherapy machine, also called a high-dose-rate afterloader. Your radiation oncologist then directs a special computer to guide a small, radioactive seed into the breast tissue near where the tumor was removed. The radiation is left in place for several minutes. After the end of the five days, the catheters or balloon are removed.
- **3-D conformal partial breast irradiation** is a type of external beam radiation therapy where only part of the breast receives external beam radiation.

The long-term results of these techniques are still being studied. Talk with your radiation oncologist for more information.

RADIATION AFTER MASTECTOMY

After a mastectomy, your doctor may suggest radiation therapy for the chest wall and nearby lymph node areas.

- Whether or not radiation therapy should be used after removal of your breast depends on several factors. These factors include the number of lymph nodes involved, tumor size, and whether or not cancer cells were found near the edge of the tissue that was removed.
- Many patients who have a mastectomy can safely skip radiation therapy. Ask your doctor for more information.

POSSIBLE SIDE EFFECTS

- Side effects are usually temporary and should go away after treatment ends. However, ask your doctor what you can expect from your specific treatment.
- Skin irritation similar to a sunburn.
- Mild to moderate breast swelling.
- Mild fatigue that generally gets better a month or two after treatment ends.
- A few women report mild tenderness in the breast or chest wall. This will slowly get better over time.
- Scarring of a small part of the lung just under the breast. This generally does not cause side effects.
- Many of these side effects can be controlled with medications. Tell your doctor or nurse if you experience any discomfort so they can help you feel better.

CARING FOR YOURSELF DURING TREATMENT

Get plenty of rest during treatment, and don't be afraid to ask for help.

- Follow your doctor's orders. Ask if you are unsure about anything. There are no stupid questions.
- Tell your doctor about any medications or vitamins you are taking, to make sure they are safe to use during radiation therapy.
- Eat a balanced diet. If food tastes funny or if you're having trouble eating, tell your doctor, nurse or dietician. They might be able to help you change the way you eat.
- Treat the skin exposed to radiation with special care. Stay out of the sun, avoid hot or cold packs, only use lotions and ointments after checking with your doctor or nurse and clean the area with warm water and mild soap.
- Battling cancer is tough. It may help to seek out help from support groups and friends.