RADIATION THERAPY
FOR EARLY BREAST CANCER

Why radiation therapy?

Radiation therapy (also called radiotherapy) uses targeted, high-energy X-rays to kill cancer cells. It's very effective in killing fast-growing cells like breast cancer cells. It kills any cancer cells that may remain in or around the breast after surgery. This lowers the chance of the cancer returning (recurrence).

Radiation therapy can harm normal tissue, so it's carefully planned and precisely given. This helps ensure as many cancer cells as possible are killed with as little damage as possible to other parts of your body.

What to expect – Planning step-by-step

1. Your radiation therapy is planned just for you. It is based on the:
   - Tumor size, type and location
   - Number of lymph nodes that contain cancer
   - Type of breast surgery (and lymph node surgery) you had
   - Shape of your breast and your body
2. Your radiation oncologist oversees the radiation planning session (called a simulation or mapping). During this session, you will lie on a special table. The radiation oncologist will decide the proper dose and best areas to receive the radiation.
3. During the planning, the radiation oncologist will put small marks (about the size of a pinhead) on your skin. These marks ensure you are correctly positioned for each treatment. They may be ink marks, or they may be tattoos. Be sure to tell your radiation therapist, who runs the radiation therapy machine, if the marks start to fade.
4. You will meet with your radiation oncologist to discuss your treatment plan in detail.
5. You will meet with a radiation therapy nurse to discuss skin care and how to cope with possible side effects.
6. Your treatment will begin a few days or weeks after the planning session.

At a radiation therapy session...

You will lie on a special table. Most often your entire breast (and, if needed, the lymph nodes in the underarm area) will be given a dose of radiation. At each session, you get a small amount of radiation to the treatment area. This results in the least amount of damage to normal cells and allows them to recover quickly.

- Each session lasts about 10-20 minutes. Most of this time is spent positioning your body to ensure the treatment is given exactly as planned.
- Treatment usually is given once a day, 5 days a week, for 3-7 weeks. Radiation therapy is an outpatient treatment (you don't stay overnight in the hospital).
- After you complete your radiation therapy sessions, you may have more radiation (called a boost). This boost increases the radiation given to the area of the original tumor (the area most at risk for recurrence).
- Many women now get a shortened course (3-4 weeks) of radiation therapy. A slightly higher dose is given at each session, which reduces the number of treatment sessions.

For more information, visit komen.org or call Susan G. Komen's breast care helpline at 1-877 GO KOMEN (1-877-465-6636) Monday through Friday, 9 AM to 10 PM ET.

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Resources

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

Questions to Ask Your Doctor
komen.org/questions

National Cancer Institute
1-800-4-CANCER
cancer.gov

National Comprehensive Cancer Network
1-888-909-NCCN
nccn.org

National Lymphedema Network
1-800-541-3259
lymphnet.org

Related educational resources:

- Clinical Trials
- Life After Breast Cancer Treatment
- Lymphedema
- Making Breast Cancer Treatment Decision
- Questions to Ask Your Doctor - Lymphedema

Coping with side effects

Most often, side effects from radiation therapy begin within a few weeks of starting treatment. They should go away within a few weeks after treatment ends.

Symptoms vary depending on the area treated. The risk of having side effects increases as more skin and lymph nodes are treated.

Skin irritation and redness

During and just after treatment, the treated breast may be rough to the touch, red (like a sunburn) and swollen. Sometimes the skin may peel, as if it were sunburned. Your radiation oncologist may suggest special creams to ease this discomfort. Try to treat your skin like you would if you had a sunburn — wear loose, soft clothing over the treated area (for example, wear a soft cotton bra without an underwire) and use lukewarm water for bathing.

Sometimes the skin peels further and the area may become tender and sensitive. This is most common in the skin folds and the underside of the breast. If this occurs, let your oncologist or nurse know. He or she can give you creams and pads to make the area more comfortable until it heals.

Not all lotions and sunscreens can be used during treatment. Check with your doctor before using any on the treated skin. Cover up when you are outside and use a sunscreen of SPF 15 or greater.

Breast tenderness

During and just after treatment, your treated breast may be sore. Talk with your doctor about using mild pain relievers such as ibuprofen (Motrin) or acetaminophen (Tylenol) to help ease breast tenderness. Wearing loose cotton clothing and not wearing a bra may also help.

Fatigue

You may feel tired during and just after treatment. Your body is using a lot of energy to heal. Try to get as much sleep as possible. If you can, adjust your work schedule or activities to give you more time to rest. Even though it may be hard, exercise may help increase your energy.

Lymphedema (swelling of the hand or arm)

Lymphedema can occur after radiation therapy if the lymph nodes were treated. If you notice any changes to the arm or hand, see your doctor. Although there is no known way to prevent lymphedema, injury or infection to the arm or hand may trigger it. So treat any infections right away. Ask your doctor for information about lymphedema.

Clinical Trials

Clinical trials in radiation therapy are ongoing. Some are looking at giving radiation only to the part of the breast that had the cancer, which reduces the number of treatment sessions. This is called accelerated partial breast irradiation and can be done in a few ways. The long-term effectiveness of these and other methods are still under study.