



## RADIATION THERAPY

### BREAST

*Disclaimer: Our material is not intended as a substitute for medical care. However, it can be used to formulate questions for discussion with your physician. Each medical condition is unique. If you have questions about your unique condition or about information you see here, the Breast and GYN Health Project strongly advises that you consult your physician.*

#### RADIATION THERAPY: What is it?

**Radiation Therapy** (also called “radiotherapy”) is a cancer treatment that uses high energy x-rays or particles that destroy cancer cells and stops them from spreading. Radiation to the breast is often given after breast-conserving surgery to help lower the chance that the cancer will come back in the breast or nearby lymph nodes. Radiation may also be recommended after mastectomy in patients either with a tumor 5 centimeters or larger, when cancer is found in the lymph nodes, or when there is a positive surgical margin (tumor cells right up to the edge of the incision). Radiation can be given in two main ways, external beam radiation and internal radiation or brachytherapy.

**External beam radiation** is the most common type of radiation therapy for women with breast cancer. It comes from a machine that aims radiation at your cancer; it is called a **linear accelerator**. External beam radiation therapy is a local treatment, meaning that the radiation is aimed only at a specific part of your body. It is much like getting an x-ray, but the radiation is more intense. The procedure itself is painless. Each treatment lasts only a few minutes, but the set up time—getting you into place for treatment— usually takes longer. Breast radiation is most commonly given 5 days a week, Monday through Friday, for somewhere between 4-7 weeks, depending on a number of variables specific to each person.

**Internal radiation or brachytherapy** is another way to deliver radiation therapy. Instead of aiming radiation beams from outside the body, radioactive seeds or pellets are placed into the breast tissue next to the cancer. It is often used in patients who had breast conserving surgery (BCS) as a way to add an extra boost of radiation to the tumor site (along with external radiation to the entire breast). It may also be used by itself (instead of radiation to the whole breast). Tumor size, location and other factors may limit the appropriateness for brachytherapy. There are different types of brachytherapy, which will be described by your radiation oncology physician if they are indicated in your situation.

The extent of radiation depends on whether mastectomy or breast-conserving surgery was done and whether or not lymph nodes are involved. If mastectomy was done and no lymph nodes had cancer, radiation is targeted at the chest wall and the places where any drains exited the body. If breast-conserving surgery was done, most often the entire breast gets radiation; this is called whole breast radiation. An extra “boost” of radiation is given to the area in the breast where the cancer was removed to prevent it from coming back in that area. The “boost” is often given after the treatments to the whole breast are completed. It uses the same machine, but the beams are directed to aim at the site your cancer was removed.

If you are going to receive radiation after chemotherapy, just know that radiation and chemotherapy occur in very different settings. Chemotherapy usually happens in a large room with a number of other people who are also receiving chemo, IV fluids, blood products or other condition-related medication(s). This makes it seem like more of a social setting, which some have called a chemotherapy “circle”. By its very nature and design, this has lent itself to built-in support for those present. Radiation therapy has a common waiting room, where much sharing occurs as well. The dressing rooms where people change their clothes provide a more intimate space for becoming acquainted. The actual treatment occurs in a very large room in order to accommodate the machine (linear accelerator) used to provide radiation therapy treatments. The difference in the two settings can be a challenging transition for some. To help with relaxation during treatment, people are welcome to bring and encouraged to use a CD-player with their favorite music or meditation recording that can be played without the need for headphones.

The staff in Radiation Oncology will welcome you and make every effort to ensure your comfort, both for your consultation and for any treatment you decide to receive. For many reasons, and mostly related to safety, you will be in the treatment room by yourself when the actual treatments are delivered. The technologists treating you will arrange you on the treatment table with exacting precision each day, according to the treatment plan developed specifically for you. They will be right outside the door with a monitor screen to help them visualize your positioning and comfort; there is a two way intercom so that you can communicate with them and vice-versa. You will not be alone, even though it may feel that way.

### TREATMENT PLANNING (Simulation): What is it, anyway?

Prior to beginning your radiation therapy, you will be scheduled for a session of treatment planning or “simulation” (“sim”). During this process, your radiation

oncology physician will use a CT scanner to determine and “outline” the area of your body that will receive treatment. Simulation has been likened to creating a 3-dimensional digital model of the part of your body being treated. From this model, the physician will design and shape your radiation beams to ensure that radiation is getting to the areas that need treatment, avoiding the parts of the body that do not need radiation (i.e., the heart and lungs). For this CT scan, you will be placed in the same position as for your treatment. The CT helps to precisely outline the treatment area.

This process is scheduled after your initial meeting (“consultation”) with the radiation oncology physician and usually takes about an hour. Certainly, the length of time can vary, depending on the area of your body involved and the level of treatment complexity. Other factors include the number of films the technologist needs to take (x-rays of proposed treatment field) and the radiation oncologist’s ability to review the multiple films in a timely manner. Our local radiation oncologists’ perceive the viewing of simulation films as a priority so that your wait time is as short as possible.

Gather more information from those who have had radiation therapy and gone through all the steps of preparation this treatment requires; you may want to consider attending support group at BGHP, where you are likely to meet someone who has experienced what you are facing. BGHP may be able to link you with a “buddy” and/or arrange for someone to go with you to this appointment.

### TREATMENT PLANNING: What happens during simulation?

Even though other people who have gone through this may offer to share the stories of their experience(s) with you, yours will be unique. You may experience feelings of fear and anxiety when you first walk into the simulation room. Take a deep breath or two and remind yourself that these people are here to help you and that this procedure is important for your ongoing healing. One survivor said she pretended she was the heroine in a sci-fi movie during simulation and treatment. Another imagined herself, hours later, at home eating dinner. Whatever it takes, call on your own personal coping skills.

Your support person can be with you during the simulation, although they will be asked to leave the room when radiographs ( x-rays) are being taken. You will be placed on a firm table for simulation and treatment. If needed, padding can be provided to improve your comfort. Conversation with the therapy staff during simulation may be somewhat limited, because even talking can change your position.

Talk with the technologist before you get on the table about the best time to ask questions during this process and a signal for if/when you need help.

You will have “marks” drawn on your body and small (freckle-sized), permanent tattoos placed on your body to outline the treatment area. The “marks” will go away eventually; the small tattoos will remain. These “marks” and “tattoos” will be used as reference points for your treatment. After the marks are placed on your body, you will have a CT scan which will allow the radiation oncology physician to determine how the treatment field will be arranged in relationship to your internal organs, e.g., heart and lungs. Once the simulation is complete, the radiation oncology physician will share the treatment plan with you. This is another opportunity to clarify your understanding and ask any additional questions.

Occasionally there is a need to build a “stabilizing” device that prevents movement during treatment, ensuring the same exact position every day you receive treatment. Think of yourself as being “cradled” for the duration of each treatment.

#### RADIATION TREATMENTS: How to prepare :

You may want to consider requesting an appointment at BGHP for “consultation planning” or “visit preparation” to help you prepare for your appointment with the radiation oncology physician. Some questions you might consider asking:

- What side effects might I expect from treatment?
- What measures will you, the physician, take, both before and after treatment, to minimize the expected side effects of treatment?
- What measures can I, the client or patient, take, both before and after treatment, to minimize the expected side effects of treatment?
- What are the possible short-term side effects (immediate and during treatment)?
- What are the possible long-term side effects of treatment (months to years after treatment)?
- What, if any, differences are there between treating my right breast from my left breast? i.e., what organs /structures need to be protected when treating the right vs. left breast(s)?
- Is there anything I should avoid during treatment, e.g., sun exposure, specific medications or substances, topical applications (lotion, baby oil), etc.?

--How can I best take care of myself while undergoing treatment?

--Are there any physical limitations with treatment, e.g., lifting, exercising, massage?

Check the BGHP library for information about radiation therapy (tapes, CDs, books, pamphlets). The brochure rack at BGHP has copies of Radiation Therapy and You, a publication by the NCI (National Cancer Institute) which the nursing staff in Radiation Oncology will give you. Familiarize yourself with its contents; whether you speed read it, skim over it, or digest it slowly and completely, it can be a valuable resource, with specific sections easily identified for quick reference. It is also available online at: [www.cancer.gov](http://www.cancer.gov) and can be downloaded as a PDF.

The BGHP library has several copies of Susan Love's Breast Book, the Fully Updated and Revised Sixth Edition (2015); there is an entire chapter devoted to Radiation Therapy, complete with diagrams and pictures for better visualization of the concepts involved in this treatment modality.

A variety of relaxation and meditation materials are also available in the BGHP library, including A Meditation To Help You With Radiation Therapy by Belleruth Naparstek.

#### RADIATION TREATMENTS: Helpful hints:

--Practice gentle range of motion (ROM) exercises; check with your surgeon re: any limitations. During radiation therapy, you may be positioned with your affected arm above your head while lying on your back; you may be required to "hold" that position for some time. Ask the technologist doing the simulation and/or treatment how long you will need to stay in that position and if/when you will get a break so you can "pace" yourself. You may want to work out a signal if/when your arm needs to rest.

--Collect some inexpensive, comfortable bras or undershirts to wear for your simulation appointment and for your daily (M-F) treatments. The radiation therapy technologist (technical and treatment staff) will draw on your chest with ink markers; these can stain your undergarments. Save that frilly, leopard print bra to wear in celebration after treatment.

--Find a nice pair of warm socks to take with you to wear during simulation and treatment. The simulation and treatment rooms can be cold and they are kept that

way to protect the treatment equipment. The staff in Radiation Therapy can provide you with a warm blanket during simulation and treatment, so don't be shy about asking for one if they do not remember to offer it.

--If you are challenged by claustrophobia (difficulty being in a closed space), let the nurse or physician know in advance. You may be given a medication to help you relax for the simulation process.

--It is okay to eat food and drink liquids before simulation and treatment. You may be advised to avoid alcohol during the course of your treatment. Ask your radiation oncology physician to review your medications and any OTC (over-the-counter) and non-prescription medications/substances with you to ensure that they are safe to take while you are receiving radiation treatments. He/she may ask you not to take any medications that can increase your sensitivity to sunlight.

#### TREATMENT:

If you have a need to request a certain time of the day to receive your treatment, you can certainly ask the treatment staff; just know that at any given time, the radiation therapy schedule can include 30-50 patients per day and the staff will do their best to accommodate your request when they are able to do so. There are separate dressing/changing rooms for men and women with lockers for your street clothes and personal items. You will change into a "gown and robe" and can either wait in the dressing room or the waiting room for a technologist to come get you and escort you to the treatment room. Where you wait for the technologist is a matter of your personal comfort; their only preference is that you be punctual and changed into your gown and robe, ready for treatment.

Check to see if you can take your "gown" home with you and reuse it each day to decrease the time needed to change clothes every day. Each time you get a new gown, you have to deal with those tricky snaps! Ask the Radiation Therapy staff if you even need a gown; you might not!

The therapy room is kept cool to protect the machinery. Ask for a warm blanket and don't forget those socks!

Friends, family members, and /or volunteer drivers can wait for you in the waiting area, as they will not be allowed to go with you to the treatment room. During the brief wait, they can enjoy a cup of tea or coffee and read a book or magazine, work on knitting/crochet projects or simply sit quietly and send you healing energy! You

may want to consider having a conversation with your support people about the level or amount of information you feel comfortable having shared with others in the waiting room, then if you wish, save more detailed conversations with them for later. **Remember: it is your story to tell (or not!).**

### SKIN CARE:

It is very important that nothing be applied to your skin in the area of treatment up to and including six (6) hours prior to your daily treatment. This includes oils, lotions, powder, rubbing alcohol, bath & shower gels, even some deodorant and soaps. These “potions” can either dry out the skin or increase the dose of radiation to the skin surface, much like rubbing baby oil all over your body and then baking in the sun!

Report to your doctor any changes in your skin that you are concerned about as soon as possible.

Radiation Therapy has a very short list of recommendations for skin issues: aloe vera gel or juice from an aloe Vera plant (leaf sliced lengthwise, opened and placed on the affected skin). Sometimes it is necessary to add Lidocaine gel to the skin toward the end of treatment when it can become very warm, red and irritated, much like a bad sunburn. Lidocaine and aloe Vera can also be mixed together and applied to the skin. Occasionally, Silvadene will be recommended; this is an ointment that has been effective in treating and soothing burns for many years.

NOTE: Always ask your Radiation Oncology Physician before applying anything to your skin during treatment.

Skin changes from radiation may necessitate wearing garments that are loose fitting and of soft fabrics, such as cotton or silk. These “special” garments can be as simple as an old soft cotton t-shirt, camisole, or tank top. Many women find that wearing a soft camisole under a loose-fitting outer shirt is more comfortable than trying to wear a bra and close fitting shirt during this time (and for several weeks afterwards). Some women have shared that avoiding underwire bras and/or placing soft socks under the band of a bra where it meets the affected skin relieves some of the discomfort from skin irritation. The use of special dressings can help to minimize the discomfort from radiation therapy induced skin changes, e.g., Mepilex Transfer Foam, a dressing with silicone, can be purchased locally at Cloney’s Prescription Pharmacy on Harrison Ave. in Eureka. You can ask your Radiation Oncologist to write a prescription for these dressings so that your insurance will help to cover it.

## FINANCIAL ASSISTANCE:

Inquire at BGHP for information and assistance regarding available programs that might be helpful to you and for which you might be eligible, e.g., Breast and Cervical Cancer Treatment Program (BCCTP).

For questions about your bill, costs, insurance, etc., call the Radiation Oncology Department directly: **(707) 445-8121, 6550**. Curtis Prevost, Department Director, can assist you or further direct you with these issues. You may also be directed to call Louise at Dr. Harmon's billing office: **707-668-5743**.

St. Joseph Hospital may be a provider for your insurance and Radiation Oncology may not be a provider for your insurance. This can be quite perplexing and frustrating during an already confusing time! You may need to be in close touch with your insurance carrier (if you have one).

## Payment and Insurance

The radiation oncology physicians are independent of the hospital and are not employed by St. Joseph Hospital. Dr. Harmon and Dr. Luh accept patients with Medicare and Medi-Cal, as well as patients with no insurance. They accept patients with all insurances, but are NOT Blue Cross or Blue Shield in-network providers. That means that if you have Blue Cross or Blue Shield, the insurance company will send a check to you directly for a portion of the doctor's bill. If you sign over the check to the doctors, they will most likely accept that check as "payment in full." If you cash the check or deposit it, you may be responsible for the full amount of the bill with no "write off." If you have any questions about payment or billing, insurance matters related to radiation therapy, you may call **Louise** at Dr. Harmon's billing office at **707-668-5743**.

## References:

- 1) Radiation Therapy and You, National Cancer Institute, U.S. Department of Health and Human Services; National Institutes of Health, NIH Publication No. 08-7157; Revised March 2007.
- 2) American Cancer Society website: [http://www.cancer.org/cancer/breast\\_cancer](http://www.cancer.org/cancer/breast_cancer)
- 3) Love, Susan M., with Lindsey, Karen & Love, Elizabeth. Susan Love's Breast Book, 6<sup>th</sup> edition. Philadelphia: DaCapo Press, 2015.
- 4) Naparstek, B. CD: A Meditation to Help You With Radiation Therapy. Health Journeys audio series; Image Paths, Inc., 1999.



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