

Radiation therapy is a treatment for cancer that uses high-energy x-rays to stop cancer cells from growing and multiplying. Radiation therapy is sometimes called irradiation or radiotherapy. Most people receive external beam radiation therapy for cancer. For these treatments, a machine called a linear accelerator is used to deliver high-energy x-rays to a specific part of your body (for example, the breast, chest, or pelvis). Certain other radiation treatments may require the use of internal radiation therapy (brachytherapy), such as radioactive implants placed inside the body. Usually, radiation therapy is given as an outpatient procedure. This means that you come and go from your home to the hospital each day to receive your treatments.

## Who Will Provide My Radiation Therapy?

You will be cared for by an Interdisciplinary Team in the Department of Radiation Oncology that includes the following staff members: Radiation Oncologist, Registered Nurse, Radiation Therapist, Dosimetrist / Physicist, Social Worker, Nutritionist, and support staff. As an informed patient, it is important that you understand the role of each person on the team.

## What is the Radiation Therapy Process?

Radiation therapy is technically complex. In general, patients receiving radiation treatments will go through the steps listed below. Before every appointment, please check in at the front desk. The front desk staff will update your personal information, make sure you have completed any necessary paperwork, check you in for your appointment, and give you a patient wristband to ensure proper identification for your safety.

### **Step 1: Consultation with a Doctor (45 minutes to 1 hour and 30 minutes)**

During this appointment, the doctor (Radiation Oncologist) will review your current health records, diagnostic tests, and any procedures you may have had. During this appointment you and the Radiation Oncologist will decide on your treatment goals, your treatment options, and any potential side effects you may experience during the course of radiation therapy. If you decide that radiation therapy is the best choice for you, the Radiation Oncologist will schedule you for a simulation.

**Note:** Sometimes, you may require an additional consultation called a re-evaluation. A re-evaluation is scheduled if you require treatments such as chemotherapy, hormone therapy, or surgery before your course of radiation.

## **Step 2: Simulation (45 minutes to 1 hour and 30 minutes)**

**The simulation is a planning procedure done before you begin radiation therapy.** Here, the Radiation Oncologist and Radiation Therapist work together to determine the exact area or "field" where the radiation will be directed. This is also called a "CT simulation." Simulation can be 1-3 sessions depending on the complexity of your treatment. Simulation is done while you are lying on an x-ray table.

### **Most often simulation will consist of the following:**

- Making an immobilization device to help keep you very still during treatment.
- Placing temporary marker lines on your skin to determine the treatment "fields."
- Taking measurements for the physics calculations.
- Taking x-ray pictures and a photograph of your "set-up" for keeping accurate records of your daily treatment.
- Placing 2 to 5 permanent "pin" dots on your skin. These are permanent tattoos.

## **What are Temporary Markings?**

These are markings that are placed on your skin by your therapist to align your body to the machine for treatment. Sometimes, if your treatment is complex your therapist may ask you to keep these markings on. However, most of the time you may wash these markings off before you leave the department or at home. Alcohol preps are available to you in the dressing room during the first visit to remove the marks. Please do not use the alcohol preps daily, as they will dry your skin. Please be aware that these markings can come off on your clothing so do not wear fancy clothes to your treatments.

## **"Plan Verify (PV)" and/or Your First Treatment (30 minutes to 1 hour)**

- "Plan Verify (PV)" – Your treatment plan may require a "Plan Verify (PV)." This is actually a second simulation. This procedure is used to double check your treatment plan before starting radiation treatments. You might not receive a treatment at all this first day as it depends on the complexity of your treatment plan.
- The first day of treatment is a little longer than your regular treatments. On this day, your radiation therapist will take special x-rays, called "port films," to assure that you are correctly aligned to the machine.
- Talk with your nurse after today's appointment for information on skin care treatment and side effects of treatment.

## Regular Treatments (15 – 30 minutes)

- Most treatments take between 10 and 15 minutes per day. Treatments are scheduled 4 or 5 times per week, Monday through Friday.
- Treatments are given from 8:00 a.m. – 4:45 p.m. Please arrive a few minutes before your treatment time to change from your clothes into a hospital gown.
- Check in with your Radiation doctor once a week or as needed for questions.
- About once a week the therapists will take verification films to make sure you are still aligned properly. These films usually take an extra 5 to 10 minutes.
- Plan to keep the same time each day for your appointments, unless there is a special reason to change it. If you cannot make your appointment, please contact the therapist treating you.

## Will I Experience Any Side Effects?

- Generally, side effects are different for each person and are specific to the site of treatment.
- The side effects from radiation are usually temporary and may last as long as you are receiving radiation therapy. Usually, side effects go away once the treatment has ended.
- Most patients will experience some degree of fatigue and skin reaction. You will receive more detailed information about the possible side effects you may experience from your nurse, doctor, or radiation therapist.
- **It is very important to report any changes you are feeling or any side effects you may have to your doctor, nurse, or radiation therapist as soon as possible.**

## Follow-up Appointments

When your treatment is completed, your doctor will discuss the need for follow-up appointments with you. Check in at the front desk before you come in to see your doctor.

## Caring for Yourself at Home

During the course of your treatment, it is very important that you take very good care of yourself.

- Pacing your activities reduces your stress levels and helps you cope with treatment.
- Good nutrition is important to maintaining good health and even more so when you are ill. If you would like information about nutrition, please see our Nutrition handout. For further guidance ask to speak with the Nutritionist.

- Exercise is recommended if you feel up to it. However, please discuss this with your doctor, nurse, or radiation therapist as certain types of exercise may not be advisable during your treatment.
- Following your course of radiation therapy, your skin in the treated area(s) may remain sensitive. Please see our skin care handout for further guidance.

California Pacific Medical Center Radiation Oncology offers *Integrative Oncology*, a team of experts who provide supportive cancer services at no cost to you. Please learn more about our team and services in the packet “Department of Radiation Oncology – The Interdisciplinary Team.”

## More Ways to Learn About Your Health

### Educational Information

- Visit the [American Cancer Society](#), or call 1-800-227-2345.
- Visit the [National Cancer Institute](#), or call 1-800-4-CANCER (1-800-422-6237).

## Frequently Asked Questions

### **Question: What is radiation therapy?**

Answer: Radiation therapy is a treatment for cancer that uses high-energy x-rays to stop cancer cells from growing and multiplying.

### **Question: How long will each appointment take?**

Answer: Please plan to be in the Department for about 30 minutes each day for your treatment.

### **Question: Will I experience any side effects?**

Answer: Generally, side effects vary and are specific to the site of treatment.

---

Produced by the staff and physicians at California Pacific Medical Center in association with the Center for Patient and Community Education. Last updated: 10/13

Note: This information is not meant to replace any information or personal medical advice which you get directly from your doctor(s). If you have any questions about this information, such as the risks or benefits of the treatment listed, please ask your doctor(s).