UW Medicine
UNIVERSITY OF WASHINGTON MEDICAL CENTER

CT Simulation

Your guide to CT simulation

This handout explains the purpose of CT simulation, and what to expect during your CT simulation experience.

CT simulation is an important step in the radiation therapy process. It helps your doctors and radiation oncology team create a treatment plan tailored just for you. We will use a CT scanner to create detailed images of the part of your body that needs treatment. This helps to make sure that the radiation treatment is delivered precisely and effectively, while minimizing damage to healthy tissues.

What to expect during a CT simulation session in radiation oncology

Scheduling:

Our radiation therapists will ask you what time works best for your radiation treatment appointments. We will do our best to accommodate your schedule.

Getting into Position: You will lie down on a table, just like how you will be lying during your treatments. This is important to make sure your treatments are accurate and consistent.

CT Machine

UWMC Radiation Oncology | Box 356043
1959 N.E. Pacific St., Seattle, WA 98195 | 206.598.4100

Taking Pictures with a CT scanner:

A CT scanner will take pictures of your body. These images provide detailed information about the location, size, and shape of the tumor and surrounding structures.

Immobilization and Marking:

Depending on the treatment area and type of cancer, immobilization devices (such as cushions, molds, or personalized devices) might be used. These help you stay in the exact same position every day during your treatment. Our radiation therapists may also make small pinpoint tattoos or draw marks on your skin. This helps make sure your setup is the same every day.

Contrast:

A special kind of dye may be given to you through an IV to help show your tumor better on the scans.

Treatment Planning:

After the CT simulation is done, your doctor and the radiation oncology team will review the images to decide where to aim the radiation. Our goal is to treat the tumor while protecting nearby healthy tissues and organs. Creating the best possible plan can take several days or weeks.

Image Fusion:

The CT images we take during simulation can be compared with other imaging studies, such as MRI or PET scans. This can help create a more accurate radiation plan.

Dose Calculation:

We use special computer programs to create a customized radiation treatment plan for you. This helps make sure your plan is accurate and safe.

Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

Weekdays from 8 a.m. to 5 p.m., call 206.598.4100 and press 1.

After hours and on weekends and holidays, call 206.598.6190 and ask to page the Radiation Oncology resident on call.

Published PFES: 2024
Clinician Review: 01/2024
Reprints on Health Online: https://healthonline.washington.edu

UWMC Radiation Oncology | Box 356043
1959 N.E. Pacific St., Seattle, WA 98195 | 206.598.4100