OHSU Knight Cancer Institute offers the newest in TomoTherapy technology: TomoHD. We have the only TomoHD in the Pacific Northwest and it provides even more accurate radiation therapy for even the smallest tumors and reduced treatment times.

TomoTherapy is an integrated, advanced form of image-guided radiation therapy. Your anatomy can change from day-to-day: Image-guided radiation therapy helps doctors make immediate adjustments to allow for tumor movement or shrinkage, weight loss and more.

Conventional radiation therapy machines deliver a wide beam of radiation from only a few angles. TomoTherapy allows doctors to deliver radiation therapy from all angles around you. The all-in-one system lets your doctor scan and treat you with a single piece of equipment, which makes radiation therapy precise, fast and personalized.

**Precise**
- Attacks tumors with highly precise radiation delivered from 360 degrees around you—increasing the control doctors have in getting radiation where it needs to be.
- This level of accuracy helps decrease damage to surrounding healthy tissue and organs, allowing a lower risk of pain and complications.
- OHSU Knight Cancer Institute offers new technology that provides increased accuracy, leading to shortened treatment times and better efficiency.
- Uses daily CTrue™ imaging to guide the treatment each day—so doctors can adjust your treatment as they go based on even the smallest changes in your anatomy.

**Fast**
- TomoTherapy is the only radiation therapy system designed on a CT scanner foundation. The system looks like a CT scanner because it is one. Advanced radiation technology is built in, letting your team complete your treatment all in one place.
- Noninvasive, and as painless as having a CT scan or an X-ray.
- Helps you live your life during the course of treatment; TomoTherapy takes only a few minutes a day, and you’re in and out in as little as 10 minutes.
- Is capable of treating small, large and multiple tumors—in multiple areas of the body—during the same treatment session or course of treatment.

**Personalized**
- TomoTherapy customizes treatment delivery specifically for you. The system lets your radiation oncology team design a personalized treatment plan for you and adjust it at any time during your course of treatment.
- Can be adapted at any point to best deliver your treatment, making sure you get the right dosage, in the right places, at the right time.
- May be used in combination with surgery, chemotherapy and other medications to attack your cancer in many ways at once.
- TomoTherapy can often treat cancers that have returned, even if you’ve already had radiation therapy.
- Is able to treat cancers all over the body, but is especially effective for pediatric cancers, head and neck, pancreatic, left-sided breast, anal and rectal cancers.

To make an appointment, call 503 494-8756
Benefits of Treatment with TomoTherapy® TomoHD™

Prior to treatment

Before beginning TomoTherapy treatment, your OHSU Knight Cancer Institute team will create a plan using 3-D images from a combination of scanning technologies (such as CT and MRI) and special software that help define the size and shape of each tumor and proximity to surrounding sensitive organs or tissues.

Your doctor then prescribes how much radiation the tumor should receive, as well as acceptable levels for healthy tissue nearby. The TomoTherapy treatment system calculates the appropriate pattern, position and strength of the radiation beams to be delivered, based on the prescribed dose.

During treatment

When you are treated with TomoTherapy, you will be taken to the treatment room where a radiation therapist will help you onto the TomoTherapy system’s couch. You will most likely lie on your back, and your therapist may fit you with a special device to comfortably help you remain still during treatment.

If imaging is necessary, the couch will move you through the ring once for daily CTrue™ imaging. Based on these CT images, the therapist may fine-tune your position via small couch adjustments. Then the couch will move you through the ring once again, this time more slowly, as the TomoTherapy system delivers your daily treatment.

What you can expect

A typical course of radiation therapy involves a daily visit Monday through Friday. The number of treatments will depend on your cancer. In general, the full daily TomoTherapy procedure takes 10-20 minutes from when you enter the treatment room until you leave. This includes time for the daily CT imaging process to be performed and for treatment to be delivered (“beam-on time”). The remaining time is used for set-up and proper positioning.

TomoTherapy treatments are painless. The experience is similar to having a CT scan or an x-ray taken. You’ll hear hums and clicks of the system at work—calibrating to your customized treatment plan—but treatment is comfortable.

Are there side effects?

Whether you have side effects depends on many factors, including your medical condition, general health and any other treatments you receive. Side effects of TomoTherapy may include diarrhea, leg swelling, bladder issues and skin problems.

How can I learn more?

Talk with your doctor to see if TomoTherapy is right for you.

To make an appointment, call 503 494-8756