



South Texas
**Comprehensive
Cancer Centers**



DIFFERENT
FROM THE
REST



FOCUSED
ON THE
FUTURE

A guide to understanding
TomoTherapy® treatments



- ⊕ Advanced treatment planning
- ⊕ Integrated, daily CTrue™ imaging
- ⊕ 360° treatment delivery
- ⊕ A platform for truly personalized care

Radiation
therapy that
revolves
around you



For more than 80 years, radiation therapy has been used in cancer care. Through the decades, the primary challenges have remained the same:

How can doctors be sure the beam is reaching the tumor as planned?

How can harm to healthy tissue around the tumor be minimized?

With a fresh approach and a new design, the Tomotherapy® Hi-Art® treatment system addresses these needs.

www.tomotherapy.com/patient/

www.stxcancer.com

The *TomoTherapy* treatment difference

Revolutionary, not evolutionary

Today's conventional radiation treatment devices are at the end of an evolutionary path. With design roots in 2D x-ray imaging equipment from more than a century ago, they have been adapted over time to stay current with advances in the field. The *Hi-Art* treatment system, in contrast, was designed in the 1990s. The goal was to develop a machine free of historical constraints—one that could make full use of recent, key advances in computing, diagnostic imaging and treatment delivery technologies.

The imaging advantage

The *Hi-Art* treatment system looks like a CT scanner because it is a CT scanner. It lets clinicians efficiently acquire 3D *CTTrue* images of every patient, every day. With these images, clinicians can check the size, shape and location of tumors before each treatment. Then they can compare that day's image with the one used for planning, to make sure that radiation will be directed to where it should be. Importantly, daily *CTTrue* images can also be used to analyze—and, if necessary, modify—a patient's treatment at any point during the treatment course.

Unparalleled precision

Conventional radiation therapy machines deliver a wide beam of radiation from only a few angles. The *Hi-Art* treatment system uses its unique CT scanner design to deliver radiation continuously from all angles around the patient. And, it features patented beam-modulating technology that divides a single beam into many smaller, narrow "beamlets." More angles and more precise modulation result in dose distributions that conform to tumors like never before. This, in turn, minimizes damage to surrounding healthy tissue.

A simplified treatment process

The *Hi-Art* treatment system is an all-in-one solution, incorporating software for treatment planning, quality assurance, patient set-up and treatment delivery. It facilitates the first fully-integrated process for radiation therapy, reducing the number of technical decisions that need to be made and giving clinicians more time to focus on patients.



This is a process
that puts the patient first.



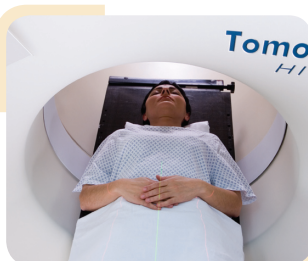
The *TomoTherapy* treatment process



Behind the scenes

Before beginning a *TomoTherapy* treatment, the doctor puts together a plan using 3D images from a combination of scanning technologies (such as CT and MRI) and special software to establish the precise contours for each tumor and surrounding sensitive organs or tissues.

The doctor then prescribes how much radiation the tumor should receive, as well as acceptable levels for healthy tissue nearby. The *Hi-Art* treatment system calculates the appropriate pattern, position and intensity of the radiation beams to be delivered, based on the doctor's prescribed dose.



The day of treatment

After checking in for a daily treatment, the patient will be taken to the *TomoTherapy* treatment room where a radiation therapist will help them onto the *Hi-Art* system's couch. The patient will most likely lie on their back, and the therapist may fit them with a special device to help them hold still during the treatment.

First, the couch will move the patient through the machine once for daily *CTTrue* imaging. Based on these images, the therapist may fine tune the patient's position via small couch adjustments. Then the couch will move the patient through the machine once again, this time more slowly, as the *Hi-Art* system delivers treatment.



What you can expect

A typical course of radiation therapy involves a daily process, Monday through Friday. The number of treatments varies by case. On the average, the full daily *TomoTherapy* procedure takes 20 minutes from when the patient enters the treatment room until they leave. This includes about five minutes for the daily CT to be performed and another five minutes

for treatment to be delivered ("beam-on time"). The remaining time is used for patient set-up and image registration for proper positioning.

TomoTherapy treatments are completely painless. The experience is similar to having a CT scan or an x-ray taken. You may hear a clicking noise and the hum of the machine, both of which are normal sounds that the machine makes.



A new standard of care

In July of 2003, the first patient was treated on a clinical *TomoTherapy Hi-Art* treatment system. Today, hundreds of people will begin their own Tomo[®] treatments at hospitals, clinics and cancer centers worldwide. The rapid, widespread embrace of the *TomoTherapy* process is one way to gauge its impact on cancer care. But it is the growing, global community of people served by this technology that's most important of all.



A new day for cancer patients in South Texas.





South Texas
**Comprehensive
Cancer Centers**

Calallen Location

14120 Northwest Blvd.
Corpus Christi, TX 78410

(361) 248-7920

www.stxcancer.com

www.TomoTherapy.com

Reshaping Radiation Therapy™

The TomoTherapy® Hi-Art® treatment system is one of the most advanced and versatile radiation therapy systems commercially available for the treatment of a wide variety of cancers. It has been installed at university research centers, hospitals, private and governmental institutions and cancer treatment centers in North America, Europe and Asia.