

I CAN NEWSLETTER

Fighting cancer through science, healthy living, and prevention

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For more information about radiation therapy and other topics, visit www.TexasOncology.com.

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Visit www.TexasOncology.com for more information and tips.

About Texas Oncology

Texas Oncology delivers high-quality cancer care with leading-edge technology and advanced treatment and therapy options to help patients fight cancer.

A pioneer in community-based cancer care, Texas Oncology is an independent oncology practice with sites of service throughout Texas and southeastern Oklahoma. Texas Breast Specialists and Texas Urology Specialists are a part of Texas Oncology. Texas Oncology patients have the opportunity to take part in some of the most promising clinical trials in the nation for a broad range of cancers. For more information, visit www.TexasOncology.com.

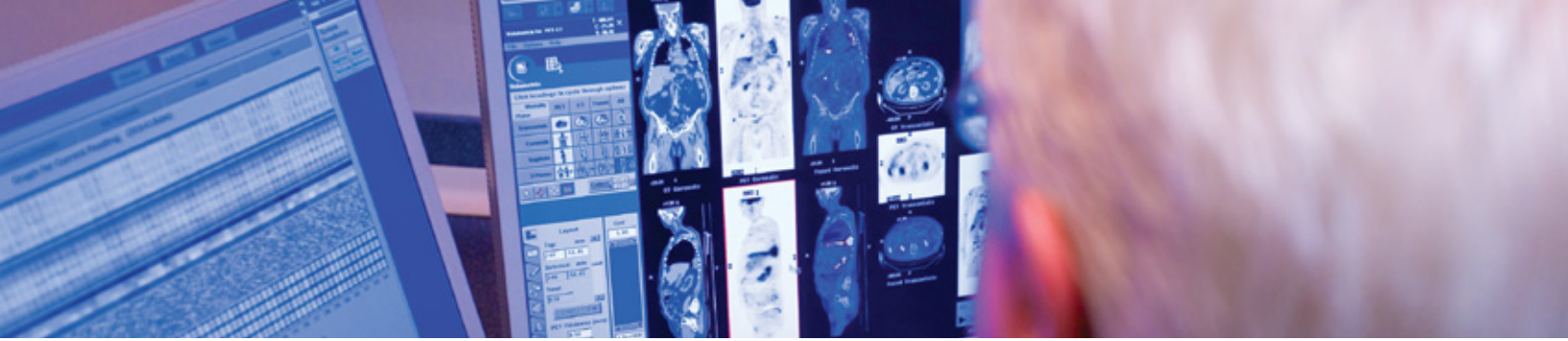
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TEXAS ONCOLOGY
More breakthroughs. More victories.®



Radiation Therapy 101

All cells in the body grow and divide, but cancer is characterized by the uncontrolled growth of cells. Radiation therapy uses specialized, high-tech equipment to deliver high doses of radiation to cancer cells, damaging their ability to grow and spread.

“Today radiation therapy is faster, safer, and more precise for patients than ever before.”

– Louis Munoz, M.D.

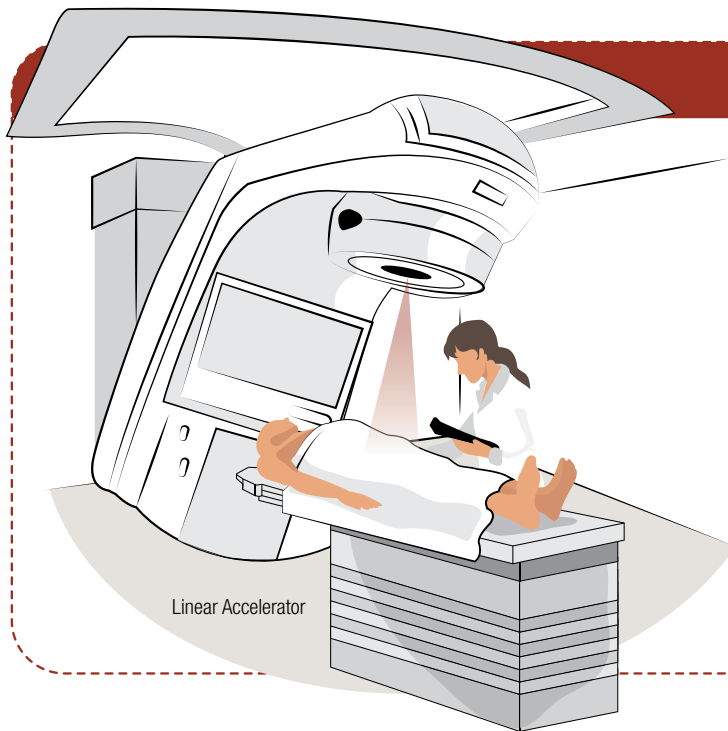
Radiation Oncologist, Texas Oncology–Medical City Dallas

Radiation therapy targets the precise area of the cancer tumor and can be delivered in two different ways to patients – externally or internally. External radiation therapy uses high-energy X-ray or electron beams delivered by a machine called a linear accelerator that is aimed at specific points on the patient’s body. Internal radiation therapy involves


implanting radioactive material directly into the patient’s body. Patients may be treated with radiation therapy alone or in combination with other treatments, such as chemotherapy and surgery.

Radiation oncologists are physicians who specialize in radiation therapy. Texas Oncology’s radiation oncologists use the most advanced treatment planning systems and state-of-the-art radiation technology to fight cancer and deliver radiation to cancerous cells.

Radiation therapy begins with a consultation during which a customized treatment plan is developed, based on the patient’s particular diagnosis. The plan includes determining the most effective type and amount of radiation treatment. The process includes taking scans to pinpoint the cancer’s position, determining the correct body position for radiation delivery, making reference marks for the positions on the skin, and virtual simulation of the treatment. The Texas Oncology radiation therapy team works together to determine the best treatment approach and to deliver the treatments to each patient.



Steps in External Radiation Therapy

- 1 Imaging, including traditional X-rays or PET (positron emission tomography)/CT (computed tomography), targets cancer tumor
 - 2 Image-guidance technologies precisely aim radiation beams at the cancer
 - 3 High-energy radiation beams are targeted and delivered to the cancer
 - 4 Cancer cells are damaged and growth is disrupted
-  **Internal radiation therapy involves implanting radioactive material directly into the patient’s body through a variety of channels such as a surgical procedure or oral pill.**



Advances in Radiation Therapy

Radiation therapy is one of the most sophisticated and ever changing aspects of cancer care. As new research is explored, new standards of treatment are discovered and adopted. The newest radiation technologies include:

- Computerized simulation and treatment planning, allowing for a more accurate, optimal course of treatment
- Integrated image guidance, enabling treatment to be localized to the cancer tumor, minimizing damage to surrounding healthy tissue
- Motion management, to compensate for breathing motion during treatments
- Hypofractionation, delivering radiation in higher doses to reduce the need for more visits

One of the most exciting advancements in radiation therapy is proton therapy. The unique properties of proton therapy allow delivery of radiation doses with an even higher degree of accuracy, enabling cancer cells to be destroyed with less damage to healthy tissue. In collaboration with other healthcare organizations, Texas Oncology is planning a proton therapy facility in North Texas and expects it to be completed in two to three years.

As radiation oncology evolves, Texas Oncology physicians have a wide array of sophisticated radiation options available so that treatment may be customized for each patient. Texas Oncology's commitment to fighting cancer allows physicians to treat patients with the most advanced technologies right in their own communities.

“Breakthroughs in radiation therapy offer patients fewer side effects, greater precision, shorter treatment times, improved comfort, and faster recovery times.”

– Bernard Taylor, M.D.

Radiation Oncologist, Texas Oncology–Longview

Radiation Clinical Trials in Your Hometown

Radiation clinical trials are essential to the advancement of cancer treatment. Texas Oncology, through its affiliation with US Oncology Research and as a leader in the Radiation Therapy Oncology Group® (RTOG), is at the forefront of the country's most innovative radiation clinical trials. This involvement provides Texas Oncology patients with the opportunity to participate in a significant number of ongoing radiation clinical trials at 10 Texas Oncology community-based cancer treatment centers across the state. Involvement in RTOG also enables Texas Oncology physicians to stay abreast of the latest advancements in radiation therapy.

In July 2010, Courtney Frayard, a 40-year-old Houston-area wife and mother, was diagnosed with advanced cancer involving her esophagus and extending into her stomach, and was told that her prognosis was not good. Courtney's tumor needed to be reduced before surgeons could safely remove the cancer. With a family at home, Courtney was prepared for any measures necessary to beat the disease.

“Texas Oncology patients can take comfort in knowing that they are receiving the highest quality of care with the most current techniques and technologies right in their own communities.”

– Vivek Kavadi, M.D.

Radiation Oncologist, Texas Oncology–Sugar Land

Courtney participated in a RTOG clinical trial evaluating the treatment of radiation and chemotherapy to see if the addition of a new drug would be of benefit. While the study is still in progress and is evaluating whether this treatment protocol will help patients without the need for surgery, Courtney has seen remarkable results and today is living cancer-free.

At-A-Glance: Radiation Technologies at Texas Oncology

Texas Oncology radiation therapy offers patients an arsenal of the most effective, leading-edge radiation technology available to fight cancer. Radiation oncologists at Texas Oncology treat patients with a wide range of advanced radiation therapies designed to deliver treatments with accuracy and precision while minimizing the effects on healthy organs and tissues. Texas Oncology adheres to the highest standards and protocols to ensure patient safety and accuracy in all treatments, including comprehensive patient management and treatment planning systems. Below is a snapshot of technologies available at Texas Oncology. Visit www.TexasOncology.com for more detailed information.

Radiation Therapies	Select Technologies Available at Texas Oncology	Types of Cancer Treated
External Radiation Therapies		
Linear Accelerators	<ul style="list-style-type: none"> Multi-purpose radiation machines 	<ul style="list-style-type: none"> Many types of cancer including breast, head and neck, lung, and prostate
Intensity Modulated Radiation Therapy (IMRT)	<ul style="list-style-type: none"> Varian RapidArc™ 	<ul style="list-style-type: none"> Many types of cancer including brain, breast, colorectal, gynecologic, lung, pancreatic, and prostate
Volumetric Modulated Arc Therapy (VMAT)	<ul style="list-style-type: none"> Elekta VMAT Varian VMAT 	<ul style="list-style-type: none"> Many types of cancer including brain, breast, head and neck, lung, and prostate
Image Guided Radiation Therapy (IGRT) Technology	<ul style="list-style-type: none"> Elekta XVI Exac Trac External Portal Imaging Device/ Computerized Radiography Varian On-Board Imager® (OBI) with Cone Beam Computed Tomography (CBCT) Vision RT Ultrasound 	<ul style="list-style-type: none"> Many types of cancer including brain, breast, head and neck, lung, and prostate
Stereotactic Radiosurgery (SRS)	<ul style="list-style-type: none"> Brainlab Elekta Infinity Varian Novalis Tx™ Varian Trilogy™ Varian TrueBeam™ STx 	<ul style="list-style-type: none"> Brain Head or Neck
Stereotactic Body Radiotherapy (SBRT)	<ul style="list-style-type: none"> Elekta Infinity Elekta Synergy® XVI Varian IX with OBI/CBCT Varian Novalis Tx™ Varian Trilogy™ Varian TrueBeam™ STx 	<ul style="list-style-type: none"> Abdomen Liver Lung Pancreatic Prostate Spine
Internal Radiation Therapies		
Low Dose Rate (LDR) Brachytherapy	<ul style="list-style-type: none"> Gynecologic Applications Prostate Applications 	<ul style="list-style-type: none"> Prostate Gynecologic
High Dose Rate (HDR) Brachytherapy	<ul style="list-style-type: none"> Breast HDR <ul style="list-style-type: none"> Mammosite® Contura™ Balloon SAVI™ AccuBoost™ Gynecologic HDR Prostate HDR 	<ul style="list-style-type: none"> Breast Gynecologic Prostate