

# TomoTherapy

**A Revolution  
in the Fight  
Against Cancer**

**What TomoTherapy®  
Technology Means to You**





# Cancer Treatment that Revolves Around You


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When it comes to choosing the right treatment for your cancer, your team of healthcare professionals is here for you. We want to help you understand your options—including one of the most innovative and personalized treatment systems available in the world.

The TomoTherapy® treatment system really was designed to revolve around you. Not only does the system itself physically revolve around your body during treatment,

it also allows us to customize certain aspects of your treatment in ways formerly not possible. And, in addition to focusing on your health, *TomoTherapy* technology revolves around your time, comfort and safety.

We believe in what *TomoTherapy*—combined with the expertise of our team—can do for your fight against cancer. It's a fight for your life, and we're fighting to win.



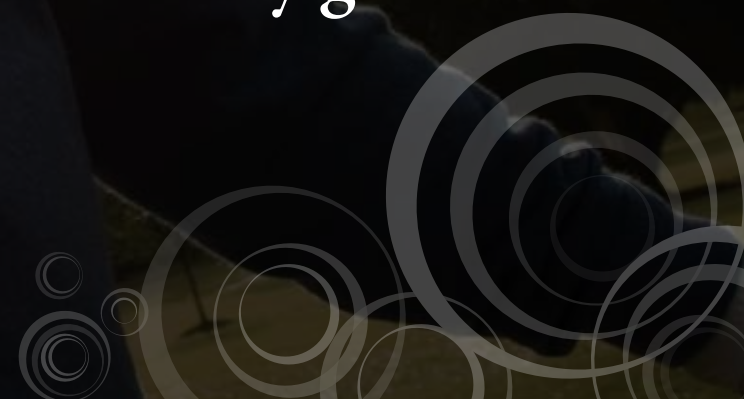


## SURVIVOR STORY

Laurens Pierce III never missed a day of a work—or a tee time—during his Tomo<sup>SM</sup> treatments. At age 65, he knows many men treated with traditional radiation therapy for prostate cancer. He was prepared for a grueling experience.

“My golfing buddy was treated with ‘old fashioned ordinary radiation’ at the same time,” Pierce says. “We’d compare notes every Sunday. He had diarrhea, lost his hair... and worse. I didn’t.”

“I never missed work. Never had a side effect. ...I never even missed my Sunday golf.”



Why TomoTherapy?	What is TomoTherapy?
<b>The <i>TomoTherapy</i> treatment system:</b>	<b>Advanced, image-guided, intensity-modulated radiation therapy (IMRT) that:</b>
<ul style="list-style-type: none"> <li>• Is one of the most integrated, advanced systems for comprehensive cancer treatment available today. The all-in-one system lets your physicians scan and treat you with a single piece of equipment, which makes it faster, more accurate and convenient.</li> </ul>	<ul style="list-style-type: none"> <li>• Is a revolutionary innovation that fights cancer in ways doctors used to only imagine.</li> </ul>
<ul style="list-style-type: none"> <li>• Provides highly precise targeting and attacking of cancer cells. This helps to effectively treat hard-to-reach and complex tumors.</li> </ul>	<ul style="list-style-type: none"> <li>• Is the only radiation therapy system designed on a CT scanner foundation. The system looks like a CT scanner because it <i>is</i> one. Advanced radiation technology is built in, letting your team complete your treatment all in one place.</li> </ul>
<ul style="list-style-type: none"> <li>• Customizes treatment delivery specifically for you. No two cancers are alike—but conventional radiation therapies often treat them the same way. The <i>TomoTherapy</i> system lets your radiation oncology team design a personalized treatment plan for you and adjust it at any time during your course of treatment.</li> </ul>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>
<ul style="list-style-type: none"> <li>• Minimizes damage to surrounding healthy tissue, so you have a lower risk of pain and complications.</li> </ul>	<ul style="list-style-type: none"> <li>• Is capable of treating small, large and multiple tumors—in multiple areas of the body—during the same treatment session or course of treatment.</li> </ul>
<ul style="list-style-type: none"> <li>• Helps you live your life during the course of treatment. Treatment itself takes only a few minutes a day, and you're in and out in as little as 10 minutes.</li> </ul>	<ul style="list-style-type: none"> <li>• Attacks tumors with highly precise radiation delivered from 360 degrees around you—which increases the control doctors have in getting radiation where it needs to be and helps to decrease the damage to surrounding healthy tissue and organs.</li> </ul>
<ul style="list-style-type: none"> <li>• Can often treat cancers that have returned, even if you've already had radiation therapy. Even if you've been told by others that you're not a candidate for more radiation.</li> </ul>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>
<ul style="list-style-type: none"> <li>• Is noninvasive, and as painless as having a CT scan or an x-ray.</li> </ul>	<ul style="list-style-type: none"> <li>• Documented advantages: Hundreds of scientific papers have been written on the use of <i>TomoTherapy</i> in clinics worldwide. Many show how its unique design results in superior treatment plans and improved clinical outcomes compared with traditional radiation therapy.</li> </ul>
<ul style="list-style-type: none"> <li>• Can result in fewer and less severe side effects. Many patients feel better than they expected they would while undergoing <i>TomoTherapy</i> treatment.</li> </ul>	
<ul style="list-style-type: none"> <li>• Can be used in combination with surgery, chemotherapy and other medications to attack your cancer in many ways at once.</li> </ul>	





# The Tomo Advantage

Conventional radiation therapy machines deliver a wide beam of radiation from only a few angles. The *TomoTherapy* system allows doctors to deliver radiation continuously from all angles around you. Instead of a single beam of radiation, *TomoTherapy* technology “modulates,” or divides, one beam into many smaller, narrow “beamlets.” Each beamlet can deliver a different dose of radiation. Different doses go to different parts of each tumor, with less damage to surrounding healthy tissue.

The new TomoDirect™ delivery option offers your doctors one more tool in the fight against your cancer. Unlike the “helical” or continuous, 360-degree delivery pattern of *TomoTherapy* treatment, the *TomoDirect* method of delivery utilizes stationary radiation beams to precisely target more typical tumors. *TomoDirect* provides your treatment team more options to treat a wider variety of cancers.



“I believe I am  
here today in  
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## SURVIVOR STORY

Andrea Gildner received *TomoTherapy* treatments when her breast cancer came back in a much more aggressive form. Even though she was told she had already received the maximum dosage of radiation, *TomoTherapy* worked for her—with very few side effects.

More than five years later, Andrea is doing well and is optimistic about her future. “I try really hard not to skip a beat in my life. And, I tell everyone that *TomoTherapy* made a difference for me. I believe I am here today in part because of *TomoTherapy*.”







# TomoTherapy and You

## Behind the Scenes

Before beginning *TomoTherapy* treatment, your treatment team puts together 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.

## The Day of Treatment

After checking in for a daily treatment, you'll be taken to the *TomoTherapy* 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

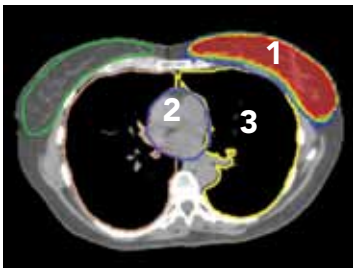
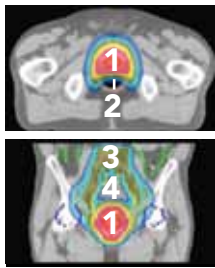
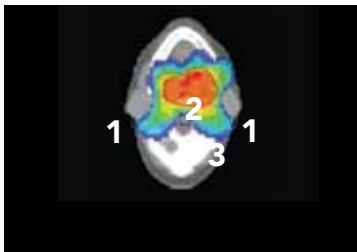

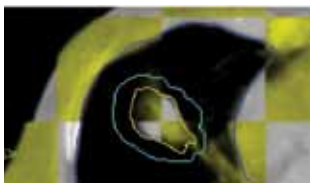
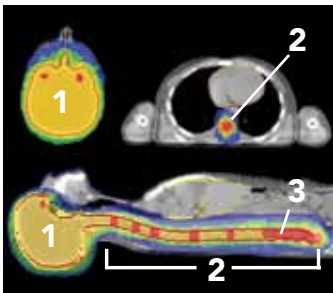
A typical course of radiation therapy involves a daily visit, Monday through Friday. The number of treatments varies by case. On average, the full daily *TomoTherapy* procedure takes 10-20 minutes from when you enter the treatment room until you leave. This includes time for the daily CT imaging process 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 and peaceful.

# TomoTherapy and Your Cancer

*TomoTherapy* delivers radiation therapy for the treatment of cancer and other diseases as prescribed by a radiation oncologist. As reported by many users, reduced side effects are often observed with *TomoTherapy* as compared to conventional forms of radiation therapy. Because of the ability to more precisely deliver the radiation, oncologists have reported that they are able to treat patients who have been treated before, when their cancers have returned.

Radiation oncologists have treated many types of cancers with the *TomoTherapy* system, ranging from routine to complex types including the following:

<h3>Breast Cancer</h3>  <p>Shows treatment of breast tissue while avoiding the heart and lung.</p> <p>1 - breast 2 - heart 3 - lung</p>	<h3>Prostate Cancer</h3>  <p>Shows the high dose contained within the tumor (red color) and the avoidance of the rectum.</p> <p>Shows ability to treat the prostate and lymph nodes while avoiding the bladder.</p> <p>TomoTherapy provides the ability to treat both early and late stage prostate cancer.</p> <p>1 - prostate 2 - rectum 3 - lymph nodes 4 - bladder</p>	<h3>Head and Neck Cancer</h3>  <p>This image shows high dose to tumor while limiting dose to spinal cord and parotid (salivary) glands.</p> <p>1 - parotid (salivary) glands 2 - tumor 3 - spinal cord</p>
<h3>Lung Cancer</h3>  <p>Treatment of the tumor with a fast reduction of dose to limit the dose to the healthy lung tissue and avoid mediastinum and spinal cord.</p> <p>1 - lung tumor 2 - mediastinum 3 - healthy lung tissue 4 - spinal cord</p>  <p>Merged registration image. Daily pre-treatment CT (yellow) is seen to be correctly placed relative to the planning CT.</p>	<h3>Pediatric Cancer</h3>  <p>Craniospinal irradiation is a common treatment for children and a difficult challenge due to the amount of tissue to be treated. The image shows the treatment of the head and spinal cord while avoiding eyes, mouth, heart, kidneys and liver. Using image guidance can help keep the amount of healthy tissue treated as small as possible.</p> <p>1 - head 2 - spinal cord 3 - metastases</p>	

Areas highlighted in red represent the Primary Targeted Volumes, which include the tumor volume and other areas of interest.





## SURVIVOR STORY

Mike Schafer had cancer at the base of his tongue, and chose *TomoTherapy* treatment after extensive research. His side effects were far less severe than he thought they would be.

"I've heard from others who have had terrible dry mouth for years afterwards. While I had some mouth sores during the process, I know of others whose mouths were so inflamed that even drinking was horrible," he says. "They've told me their skin was burned. I didn't experience that, just some mild redness was the extent of it."

Mike sums it up by saying, "I can infer from my experience with radiation and how I tolerated it versus others who went through other types of radiation, that I made the best decision with my treatment choice. A lot of people have to wait a year before returning to work and I was back in six weeks."

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**"I made the best decision with my treatment choice."**



## A New Standard of Care

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In July of 2003, the first patient was treated on a clinical *TomoTherapy* treatment system. Now, there are hundreds of *TomoTherapy* treatment systems in more than 20 countries. The rapid, widespread adoption 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.

Is *TomoTherapy* right for you? Your team will work with you and your doctor to make that decision. More than 3 million treatments have been delivered worldwide since 2003. Today, hundreds of people will begin their own *Tomo* treatments at hospitals, clinics and cancer centers worldwide. Today, hundreds of people will be one step closer to winning their battle with cancer. Today, you might be one of them.

We're committed to fighting your cancer with the best tools technology has to offer. Call us today to see if *TomoTherapy* treatment is right for you. For more information, visit **[www.TomoTherapy.com](http://www.TomoTherapy.com)**.





## SURVIVOR STORY

Dr. Mary Barnhart is a breast cancer surgeon—and an endometrial cancer survivor. She was told she'd have to abandon her vegan diet to begin IMRT radiation therapy. Then she stumbled upon TomoTherapy.com, and discovered the *Tomo* advantage.

Despite concerns that her diet would complicate possible side effects—such as diarrhea, leg swelling, bladder issues and skin problems—Mary never experienced a single one. And, she never changed her diet.

Mary began every single *TomoTherapy* treatment session by wrapping herself in a special purple quilt and donning her signature pink boxing gloves. "My overwhelming emotion was that this was the right thing for me to be doing," Mary says. "I'm taking advantage of the best technology that is on the market today. I've given it my best."

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A C C U R A Y<sup>®</sup>

*Our Business Begins with Patients<sup>™</sup>*