# Proton Therapy for Recurrent Cancers

Sometimes a patient can appear to be cancer-free at the end of treatment, but the disease reappears at a later time. When cancer reappears after a period of remission, it is considered a recurrence. This does not mean the cancer was insufficiently treated, but that some of the cancer cells were resistant and survived. Proton therapy may be an ideal option for patients with recurrent cancer, as the targeted, pencil-thin beam treats areas of the body that may have already received radiation. Proton therapy may be better able to treat recurrent tumors compared to more conventional radiation therapy techniques such as IMRT or SBRT.

#### **How Proton Therapy Works**

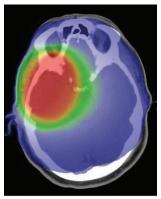
During treatment, a narrow proton beam is guided to focus the highest energy of the beam at the location of the tumor to destroy cancer cells while minimizing exposure to non-targeted, healthy tissue. While the proton beam is being delivered, it can also:

- Be designed to conform to the shape, size and depth of tumors
- Limit excess radiation near surrounding areas of the body

#### **Precise Radiation Targeting**

Once the proton beam enters the body at the targeted tumor, less radiation is administered. To help protect nearby tissue, little to no radiation is delivered after the proton beam hits the tumor.

Proton Therapy



Conventional X-Ray Therapy

Red: High Radiation Dose

Green: Intermediate Radiation Dose

Blue: Low Radiation Dose

#### **Proton Therapy Candidates**

For patients with cancer recurrence, proton therapy is an ideal second treatment option as it is highly precise and can be used as a targeted therapy for tumors that have already been treated with radiation.

#### More Benefits of Proton Therapy

- Fewer side effects increases quality of life during and after treatment
- Less radiation to the heart and lungs
- May reduce recurrence rates
- May treat areas near previously irradiated tissues
- Non-invasive and may reduce side effects

#### Refer a Patient Today

To refer a patient to Texas Center for Proton Therapy, fax the applicable referral form and the patient's medical records to the patient intake team at 469-420-9619 or visit www.TexasCenterForProtonTherapy.com and click the "Request an Appointment" button in the upper right-hand corner of the home page. If you need further assistance or have questions, please call Texas Center for Proton Therapy at 469-513-5500.



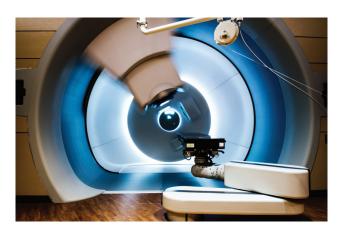
### **Texas Center for Proton Therapy**

Texas Center for Proton Therapy provides an advanced lifesaving cancer treatment to North Texas – bringing more hope to cancer patients experiencing recurrent cancer.

#### Leading Edge Technology

Texas Center for Proton Therapy offers some of the most advanced treatments available with next-generation proton and imaging technology.

- Pencil-beam scanning, combined with 4D treatment planning, allows for adaptation to complex-shaped tumors, improves dose conformity and reduces excess radiation to normal tissues.
- Cone-beam computed tomography (cone-beam CT) provides 3D volumetric imaging, which delivers improved anatomic visualization, better patient positioning and more precise targeting of cancerous tumors.
- Fluciclovine F-18 Axumin® PET scans help identify areas of prostate cancer recurrence.
- PET/CT is a powerful imaging tool used to diagnose, stage or restage cancer, as well as evaluate the effectiveness of treatment.
- 3-Tesla MRI is double the strength of the clinical-setting standard and provides extremely clear and vivid images that can often be performed faster, decreasing overall scan time. The larger bore opening also has a more spacious feel and can accommodate larger patients.





#### **Clinical Expertise**

With more than 70 years of combined experience delivering proton therapy, our physicians, nurses, and scientists provide high-quality care for our patients.

## Recurrent Cancers Best Treated by Proton Therapy

- Abdomen
- Head and neck
- Bladder
- Lung

• Brain

• Pelvis

• Breast

- Prostate
- Gastrointestinal
- Spine
- Gynecologic

### Patient-Centered Approach

Texas Center for Proton Therapy has a patient support services team dedicated to making patients' lives easier so they can focus on their care and recovery. Patient support services include:

- Assistance with logistics of care and travel
- Child play area
- Focused luncheons and activities for patients, families, and caregivers
- On-site tours and patient orientations
- Wellness programs

Sources: American Cancer Society, American Society of Clinical Oncology, National Cancer Institute, and Texas Cancer Registry.

