Head and neck cancers occur when cancerous cells develop in the mouth, throat, sinuses, and base of skull. Traditionally, many of these cases were caused by tobacco and smoking, but recently the cause is often the Human Papillomavirus (HPV). Proton therapy may be an ideal option for patients with head and neck cancers as the targeted, pencil-thin beam precisely targets the tumor and reduces the radiation exposure to the salivary glands, swallowing muscles, nerves, spinal cord, brain, eyes, and other important healthy tissues.

**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 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**

Proton beams can be targeted so that the highest energy of the beam is deposited at the tumor site to eliminate cancer cells. Less radiation is delivered as the proton beam enters the body and little to no radiation is delivered after it hits the tumor, reducing damage to surrounding healthy tissue as well as potential acute and late side effects.

**Proton Therapy Candidates**

When it comes to head and neck cancer, ideal candidates for proton therapy include patients who have experienced repeat radiation in the head and neck, and/or who have:

- Advanced cancers of the head and neck (non-surgical candidates)
- Larynx cancers
- Nasopharynx cancers
- Oropharynx cancers
- Recurrent cancers
- Salivary tumors
- Sinus cancers
- Skin cancers
- Skull base tumors
- Thyroid cancers

**More Benefits of Proton Therapy**

- Fewer side effects increases quality of life during and after treatment
- Less radiation to the head and neck (see left)
- May treat areas near previously irradiated tissues
- Non-invasive and may reduce side effects
- Patients may be less likely to need a feeding tube, and experience less weight loss
- Patients treated with proton therapy may have increased tolerance for chemotherapy

**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 head and neck cancers.

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.

- **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.

Head and Neck Cancers Best Treated by Proton Therapy

- Larynx
- Lymph Nodes
- Nasal Cavity
- Oral
- Paranasal Sinuses
- Pharynx
- Salivary Glands

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.

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.

469-513-5500

www.TexasCenterForProtonTherapy.com