**Proton Therapy for Patients with Head & Neck Tumors**

*Talk to your doctor about how Proton Therapy can help.*

**Precision Therapy. Fewer side effects.**

Proton therapy is an advanced form of radiation cancer treatment that precisely targets tumors. This causes less damage to healthy tissue. Proton therapy patients experience fewer side effects than with standard X-ray radiation. Proton therapy is effective in treating a broad range of tumors including brain, prostate, head and neck, central nervous system, lung, breast, sarcoma, gastrointestinal and many pediatric cancers.

**Head and neck treatment with protons compared to treatment with conventional radiation/X-rays/IMRT**

Protons can be controlled with greater precision than X-rays. This means that more energy goes into destroying the tumor and less radiation is delivered to surrounding healthy tissue. For this reason, proton therapy is particularly good for treating tumors near healthy organs, including head and neck tumors.1-10

**Proton Therapy delivers significantly less radiation to the spinal cord than X-Rays, reducing the likelihood of side effects.**

**Particularly effective in treating head & neck tumors**

More than 60,000 Americans are diagnosed annually with head and neck cancer. When treating head and neck tumors it’s critical to protect the delicate organs that surround the tumor. Proton therapy can substantially reduce damage to eyes, optic nerves, salivary glands, and other tissue and organs near head and neck tumors.7-9 Proton therapy also reduces the likelihood of side effects such as blindness, hearing deterioration, and dry mouth.8 Secondary malignancies are also less likely with proton therapy.7

- Head and neck tumors treated with proton therapy7,8,14
- Nasopharynx (back of the nose where it meets the throat)
- Nasal (nose) cavity
- Paranasal sinuses (sinuses in the face)
- Oropharynx (area of the throat at the back of the mouth), including the tonsils and base of tongue

In the chart below, the grey/white areas indicate no radiation exposure, while the colored areas indicate radiation exposure.

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