

Proton Therapy for Patients with Head & Neck Tumors

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

Precision Therapy. Fewer side effects.

Proton Therapy is an advanced form of radiation therapy that precisely targets the tumor utilizing proton particles. Proton particles stop inside the body and do not deposit radiation beyond the tumor they are targeting, causing less damage to healthy tissue. 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.¹ 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.^{8,13}

Visit ProtonBenefits.com for more information.

Head & Neck Clinical Benefits

45% reduction in overall risk of needing a feeding tube for **nasopharyngeal cancer**

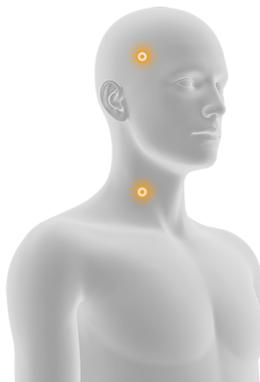
27% reduction in overall risk of needing a feeding tube for **oropharyngeal cancer**

44% increase of relative 5-year disease free survival rate for **nasal and paranasal sinus cavity cancers**

50% overall increase of disease control for **chordomas**

Less side effects during first 3 months after treatment, quicker return to normal function

50% less likely to have secondary tumor from treatment



**References available upon request. Results from separate studies compared in some instances. The benefits of proton therapy for each individual patient will vary based on their individual diagnosis. A personal consultation with a proton-experienced radiation oncologist is recommended in all cases.*

PROTON THERAPY BENEFITS

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 therapy^{7,8,14}
- 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.

