

# Proton Therapy for Patients with Lung Cancer

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

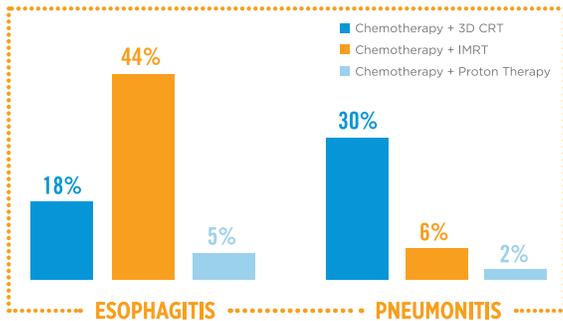
## Precision Therapy. Fewer side effects.

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.

## Particularly effective in treating lung cancer

Studies show that patients with stage III NSCLC who were treated with proton therapy experienced lower rates of pneumonitis and esophagitis (inflammations of the lungs and esophagus) compared to patients treated with x-ray radiation therapy such as three-dimensional conformal radiotherapy (3-D CRT) and intensity modulated radiation therapy (IMRT). At the same time, proton therapy achieved the same treatment success as conventional radiation therapy. Proton therapy may be an option if you:

- ✓ Have stage I-III NSCLC
- ✓ Have limited or poor pulmonary function
- ✓ Need concurrent chemotherapy
- ✓ Had prior radiation therapy



Proton therapy provides the precision to target your tumor while avoiding the healthy tissue and organs around it. This is especially important when it comes to lung cancer because the cancer may be close to your heart, lung, and other uninvolved vital organs.

Visit [ProtonBenefits.com](http://ProtonBenefits.com) for more information.

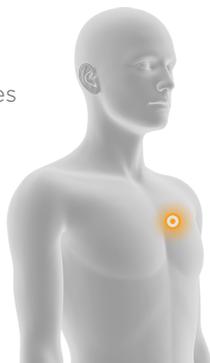
## Lung Clinical Benefits

**56% relative reduction** in incidences of grade 3 esophagitis

**50% reduction** in relative risk of recurrence

**Higher radiation dose** to the tumor while reducing risks of overall side effects

**64% relative increase** in 5-year overall survival



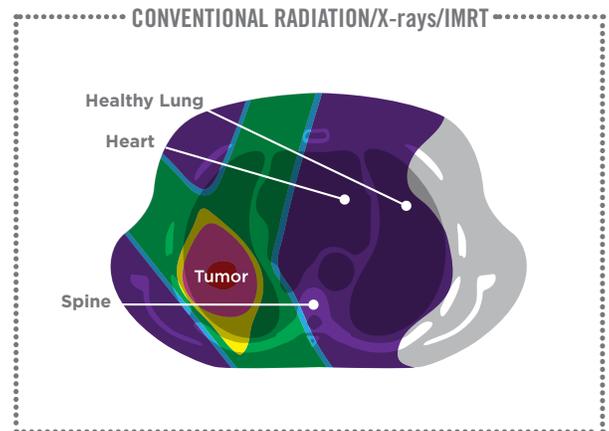
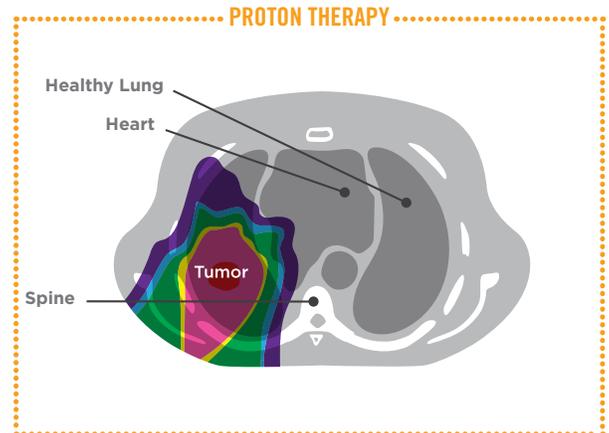
## PROTON THERAPY BENEFITS

### Lung Cancer treatment with protons compared to treatment with conventional radiation/X-rays/IMRT

With proton therapy, much of the healthy tissue and critical organs surrounding the cancer are spared from receiving unnecessary radiation. This is a major concern when it comes to radiation treatment for lung cancer because the cancer may be close to your heart, healthy lung, and other critical organs. The unique properties of protons allow proton radiation to better conform to your cancer, reducing excess radiation to the healthy tissues and organs around it.

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

### LUNG CANCER TREATMENT COMPARISON



\*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.