

# Proton Therapy for Patients with Cancer

Talk to your doctor or call Provision to learn how Proton Therapy can help you.

When considering cancer treatment, side effects and outcomes are a major concern. A non-invasive treatment, **proton therapy** is a trusted method for accurately targeting tumors and **minimizing damage to healthy tissues**, thus having a positive impact on **reduced side effects and improved quality of life**.

Traditional radiation therapy uses x-rays that continually deposit energy as they enter and exit the body, potentially causing damage to healthy tissue that surrounds the tumor being treated. Proton therapy delivers treatment to a specific area and stops. This unique property of protons eliminates the exit dose of unnecessary radiation. Protons deposit the prescribed dose of radiation to the tumor, while limiting collateral damage to healthy tissues.

## Precision Therapy. Fewer side effects.

The important organs and tissues surrounding the cancer are better protected from unnecessary radiation. Proton treatment minimizes treatment-induced side effects.

## Effective in treating a broad range of tumors

Although tumors can be treated with surgery, chemotherapy and traditional x-ray radiation, proton therapy can be particularly beneficial for patients with certain types of cancer, as well as some non-cancerous tumors and arteriovenous malformations. The ability of protons to deposit more energy directly in the tumor makes proton therapy an ideal treatment option for many patients, especially those whose tumors are near critical organs or structures.

## Tumors most appropriate for proton therapy include:

- Bladder Cancer
- Lung and Thoracic Cancers
- Brain and Skull Base Tumors
- Lymphoma
- Breast Cancer
- Orbital & Eye Tumors
- Head, Neck & Oral Cancers
- Tumors Needing Re-Irradiation
- Gastrointestinal (GI) Cancers
- Pediatric Cancers
- Prostate Cancer
- Gynecologic Cancers
- Sarcomas of Bone or Soft Tissue

The goal of treatment is to deliver the proper dose of radiation to the tumor while limiting the dose received to the surrounding healthy tissue.

## Treatment plan comparison for a brain tumor

Proton therapy spares much of the healthy tissue and critical organs surrounding the tumor from receiving less radiation than with traditional radiation (x-ray/IMRT). With traditional radiation (x-ray/IMRT), more healthy tissue and critical organs surrounding the tumor receive radiation.

