

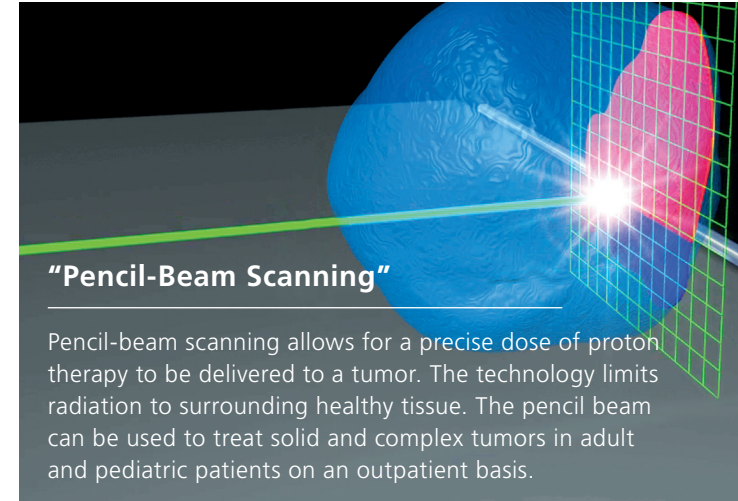
Scripps Proton Therapy Center

What is Proton Therapy?

Proton beam therapy is one of the most precise and aggressive forms of radiation treatment available for cancerous and non-cancerous tumors. Proton therapy uses a controlled beam of protons to destroy cancer cells, while minimizing harm to healthy tissue.

Cyclotron

The proton beam is generated here, using hydrogen and oxygen to create a plasma stream. Protons are extracted, accelerated to roughly 100,000 miles per second, and then sent to the beam transport system. The cyclotron is about 6 feet tall and 10 feet wide and weighs approximately 95 tons.



“Pencil-Beam Scanning”

Pencil-beam scanning allows for a precise dose of proton therapy to be delivered to a tumor. The technology limits radiation to surrounding healthy tissue. The pencil beam can be used to treat solid and complex tumors in adult and pediatric patients on an outpatient basis.

Beam Transport System

Using a series of electromagnets to steer the beam, the protons from the cyclotron are transported to each treatment room using a vacuum line. The proton beam is only in one treatment room at a time.

Gantry

Three of the Scripps Proton Therapy Center’s treatment rooms are equipped with a gantry, which rotates around the patient 360 degrees to allow treatment from any direction. Each gantry is three stories tall and weighs 283 tons. The center’s other two treatment rooms have fixed-beam machines.

