## California Protons Cancer Therapy Center: World Class Treatment as Unique as You

California Protons Cancer Therapy Center, affiliated with UC San Diego Health Cancer Network, delivers precise cancer radiation treatment while improving quality of life, and offering hope to cancer patients with its unparalleled radiation treatment.



California Protons offers three gantry-style treatment rooms, allowing the proton beam to be rotated 360 degrees around the patient for greater accuracy.

One of only two proton therapy centers in California – and one of 30 in the nation – California Protons is equipped with the latest generation of revolutionary technology and offers the most precise form of radiation therapy available today. A compassionate team comprised of highly skilled oncologists, medical physicists, certified oncology nurses, radiation therapists, medical dosimetrists, dieticians, social workers and many others provide compassionate care and support to hundreds of cancer patients each year from its beautifully designed facility in San Diego. California Protons also features special spaces and treatment protocols for children diagnosed with cancer through its affiliation with Rady Children's Hospital.

Proton therapy works by delivering a pencil-sized beam of proton therapy radiation specifically to within one-tenth of an inch of the area surrounding the cancer or benign tumor. Evidence-based research shows that the cure rates for proton treatment are the same as standard radiation, while the exposure to radiation is less.

Oncologist Andrew Chang, M.D., who specializes in treating breast and children's cancers and has treated over 4,000 patients with proton therapy, explained that proton therapy treatments are individualized to target the tumor or cancer with precision. The result is fewer side effects and secondary cancers than with standard radiation.

"Cancer patients often experience secondary health issues as a result of traditional radiation therapy. For a breast cancer patient, the heart might be weakened, or for a prostate cancer patient the rectum or bladder might be damaged," Dr. Chang said. "Children – who

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are often diagnosed with cancers of the head, neck or spine – also benefit greatly from targeted proton therapy, because traditional radiation can result in damaged areas such as the tissue inside the mouth, making it difficult for them to eat during treatment."

Even though the curative rate is the same for proton therapy and standard radiation, the biggest difference with proton therapy is in the reduction of side effects and the long-term risks, such as secondary cancers, Dr. Chang said.

"Each case is individual, and therapies are designed specifically for every patient's type of cancer, stage and medical history," he added. "Treatments typically are five days a week for five to eight weeks. The actual time at the Center is about an hour with most of that taken to set the patient up in the exact correct position. The short dose of proton therapy takes about a minute or less."

Proton treatment works in tandem with surgery and/ or chemotherapy, depending on the oncology team's plan of action. Patients resume their daily activities very quickly, which is another benefit of precision therapy.

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"Because proton therapy is able to reduce the radiation exposure to normal tissue, many of our patients feel great throughout the treatment course," Dr. Chang said. "The majority of our patients report they are not overly tired or nauseous, which can be common side effects for cancer patients undergoing traditional radiation therapy. When they leave California Protons after their daily treatment, most of our patients are able to return to their normal day - work, playing golf or running errands."

Proton therapy is not a new concept – it was first proposed in a 1946 publication, followed by the first treatment with a patient in the 1950s. When high-quality imaging became available with MRI technology in the 1970s and 1980s, the therapy gained ground.

As research has evolved, proton therapy has gained acceptance.

Many treatments are delivered through the pencilbeam dose of radiation. Breast, prostate and lung cancer are the most common forms of cancer treated in addition to head and neck, and brain tumors. California Protons treats the following cancers and tumors:

Andrew Chang, MD, radiation oncologist

is a leading expert in proton therapy and

has treated more than 4,000 patients during

- Brain
- Breast
- Esophageal
- Eye
- Gastrointestinal
- Gynecological
- Head and neck
- Liver
- Lung
- Lymphoma
- Pancreatic
- Prostate
- Soft tissue
- Spine
- Many pediatric cancers

California Protons Cancer Therapy Center is located in Sorrento Valley, between I-805 and I-15. The Center partners with physicians from health systems throughout the United States and is affiliated with the UC San Diego Health Cancer Network and Rady Children's Hospital. During the COVID19 crisis and Shelter in Place, the Center is offering telemedicine consultations and physician appointments via video conference. Patients continue to undergo treatment and staff is adhering to strict sanitation and social distancing protocols. A waiting list is also available for those interested in taking a physician-led tour of the facility once social distancing protocols are lifted, and a virtual tour of the Center will soon be available on their website.

For more information about California Protons Cancer Therapy Center, please visit www.californiaprotons.com, or call (858) 433-4886.



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