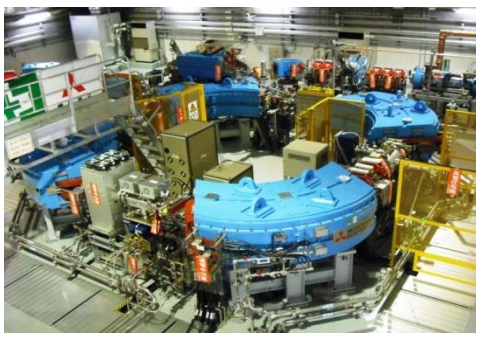
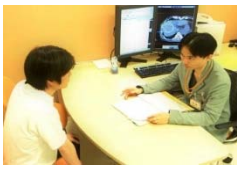
Quality Cancer Treatment in Resort Environment

PROTON THERAPY





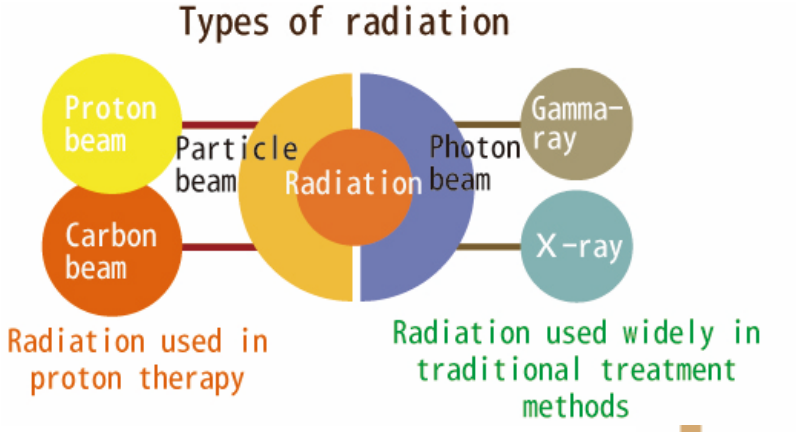
Medipolis Medical Research Institute

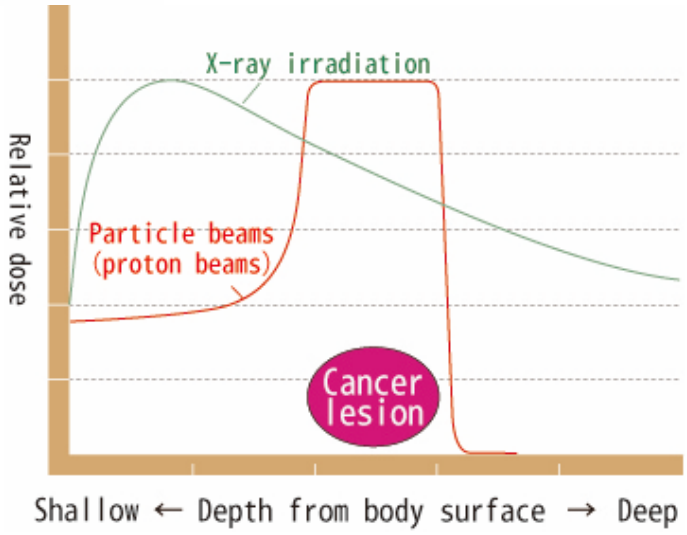
Medipolis Proton Therapy and Research Center

What is Proton Therapy?

Proton beams are a flow of particles generated from hydrogen gas. By using an accelerator, a synchrotron accelerating these particles to near the speed of light, cancer can be accurately targeted. The proton beams have the ability to focus and affect cancer lesions with minimal impact on surrounding muscle and tissues. Thus it is possible to minimize detrimental effects on healthy tissues. Established in 2011, Medipolis Proton Therapy and Research Center has treated about 2,150 patients as of June, 2017 with favorable results.

There are 2 kinds of radiation used for cancer treatment: photon and ion beams. The photon beams are an electromagnetic wave used in traditional radiation therapy such as X-rays and gamma rays. Ion beam radiation uses hydrogen or carbon atoms, and the radiation therapy using these particles is called particle therapy. One of the characteristics of particle therapy is that the particle beam has a physical property of energy emission called the Bragg peak, by which it can inflict lethal and concentrated damage on cancer cells.

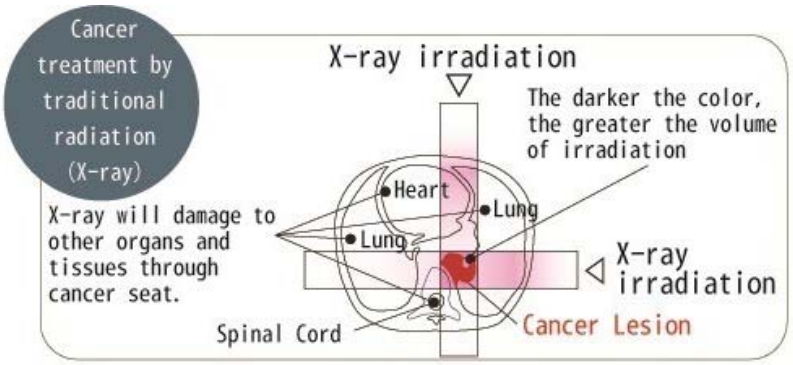


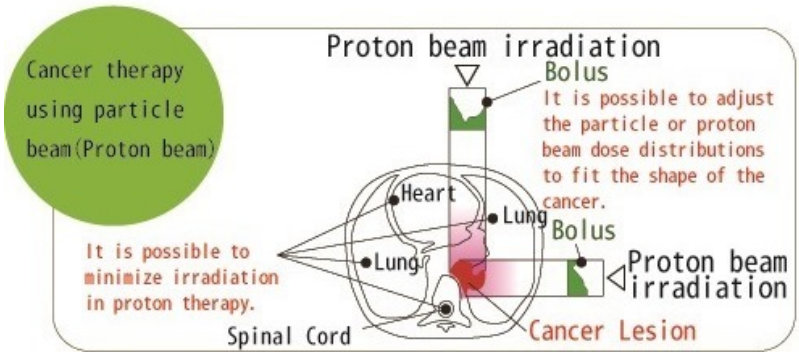


What is Proton Therapy?

Difference between X-ray and proton beam treatments

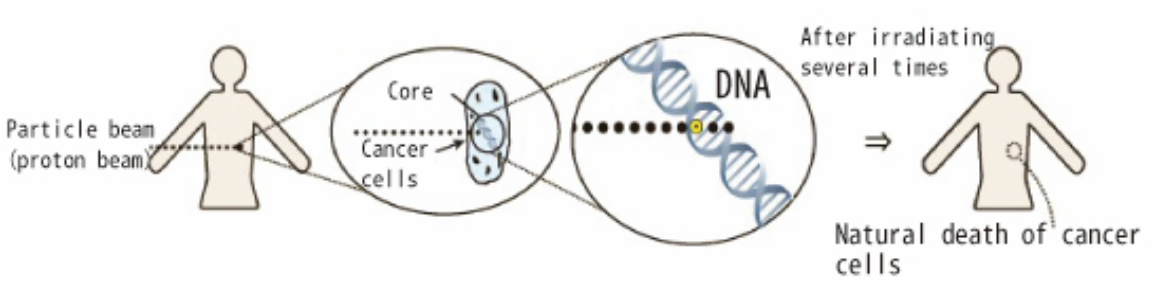
While X-ray delivers radiation not only to the tumor but also to healthy organs and tissues around the tumor, proton beams can release its maximum energy at the tumor and stop there. Therefore it can minimize the effect on healthy organs and tissues.



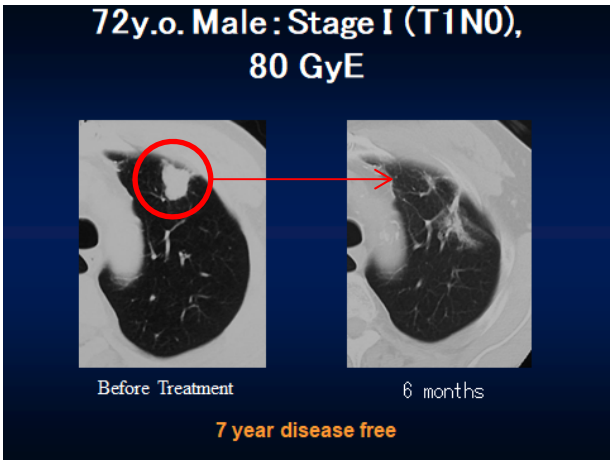


What happens in the body after the irradiation with proton beams?

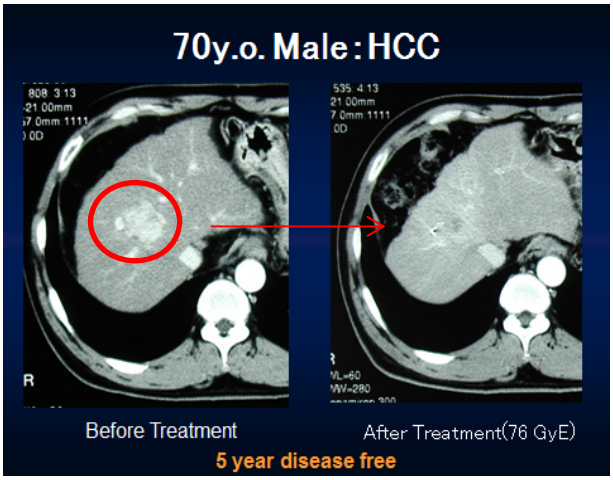
When the body is irradiated with a proton beam, the beam reaches a tumor with a minimal effect on surrounding normal tissues. It then attacks DNA in the core of the cancer cells. The cancer cells damaged by the proton beam are unable to reproduce which then followed by a gradual disappearance of the tumor.



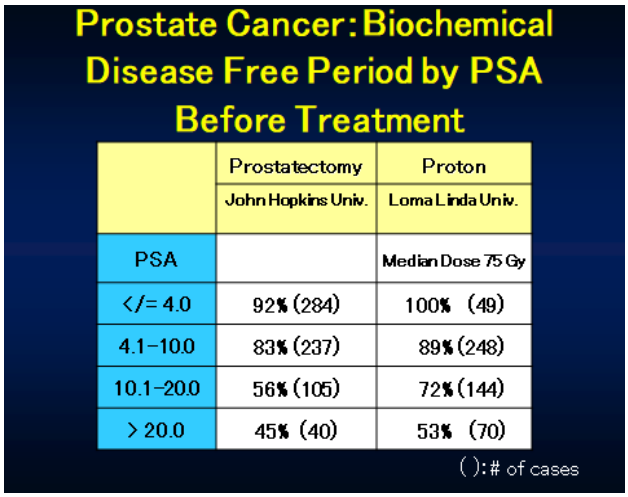
Some Treatment Results



Early Stage Lung Cancer: Area of radiation pneumonitis by proton beams that we see after the treatment is less than that of photon. Therefore it may be possible to treat lung cancer patients with poor lung condition that cannot be treated by photon radiation therapy.



Hepatocellular Carcinoma: Japan leads the proton therapy of HCC. 90% has been successfully treated regardless of the size of tumor, and recurrent tumors in the liver can also be treated.



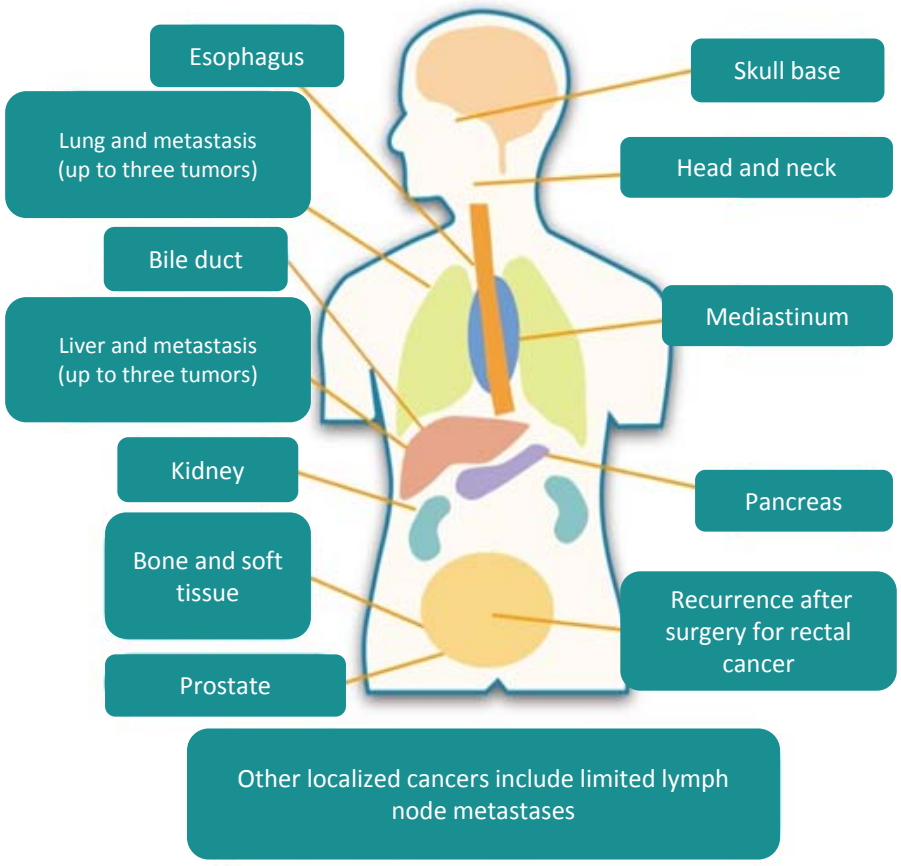
Prostate Cancer: Primary lesion with T1c-T4N0M0 is applicable. The benefits are; being able to preserve sexual function with none or lighter incontinence compared to the other treatments. Prostate cancer is the most common disease for treatment with particle therapy in Japan.

Rossi CJ, Slater JD, et al. Particle beam radiation therapy in prostate cancer: Is there an advantage? Sem. Radiat. Oncol. 1998; Vol.8, Issue2, 115-123.

Treatable Cancers

Proton therapy is highly effective when the tumor is solid, well-defined, localized, and non-metastasized. MPTRC provides proton therapy for cancers of the prostate, lung, liver, bile duct, pancreas, head and neck, esophagus and more. Meanwhile, proton therapy offers no benefit in gastrointestinal and blood cancers.

Length of treatment depends on the type, size, and position of the cancer as you can see the table below (it includes medical examinations, creation of a treatment plan and a simulation of the treatment.)



Treatment Period and Cost

Fractions and Treatment Period

Lesion	Fr.	Period
Prostate Cancer	21 or 28	5～6 weeks
Hepatic, Biliary Tract Cancer	10～26	2～5 weeks
Lung Cancer	10～35	2～7 weeks
Pancreatic Cancer	25	5 weeks
Head and Neck Cancer	26～35	5～7 weeks
Bone and Soft tissue Cancer	16～32	5～6 weeks
Renal Cancer	20	4 weeks
Rectal Cancer (Recurrence, Post-operative)	18～35	4～7 weeks
Esophageal Cancer(Photon therapy combined)	15	3 weeks
Metastasis(Liver, Lung, Lymph nodes)	8～22	2～4 weeks

Medipolis Proton Therapy and Research Center

Treatment Cost: ¥6,000,000/one area **(1 US dollar = approximately ¥109-112, reference: as of 2017 Foreign Exchange Quotations of Mizuho Bank)**

The treatment cost is inclusive of administration fees. Please note, that the cost above does not include travel costs or living expenses. If you would like further information such as the payment method and detailed estimated fees, please contact us by e-mail.

Resort Environment

The facility includes a resort hotel called Ibusuki Bay Hills Hotel & Spa which offers various kinds of spa treatments including hot sand spa that is specifically famous in Ibusuki, swimming pool, gym, soccer ground, tennis court, and hiking course with 900 acres of land. The hotel also offers French restaurant, Japanese restaurant, and Teppanyaki.




Joint Commission International (JCI) Accredited

MPTRC is the world's first proton therapy specialized organization, JCI, a globally recognized accreditation organization which evaluates the patient safety and quality of health care organizations.

The Joint Commission (JC) has accredited over 21,000 healthcare organizations in the United States, and JCI, international version of JC has accredited 1013 organizations in 69 countries, 25 of which are in Japan (as of march 3, 2018).

We will continue to improve our quality of cancer treatment and enhance it for patient safety.

Access

• Tokyo
• Medipolis

By airplane

- 7hrs from Singapore to Tokyo and 2hrs from Tokyo to Kagoshima
- 3hrs and 15mins from Hong Kong to Kagoshima
- 2hrs from Shanghai to Kagoshima
- 1hr and 35mins from Seoul to Kagoshima

By airport shuttle bus

95mins from Kagoshima Airport to JR Ibusuki Station and 15mins from JR Ibusuki Station to MPTRC by taxi

Contact Us

If you have any questions , please do not hesitate to contact us. We will be happy to help you.

Phone : +81-993-24-3456 Weekdays from 8:00 to 16:30 JST **E-Mail :** mptrc@medipolis.org

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