

Heavy Ion Cancer Therapy

Heavy Ion Beams (Carbon ion $^{12}\text{C}^{6+}$)

Cancer will guide you to cutting-edge medical curative treatment from life-sustaining treatment from now.

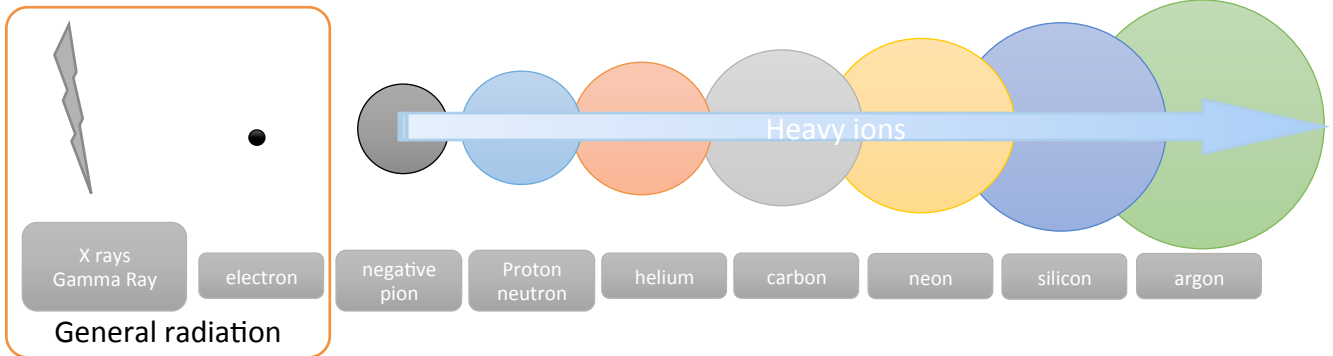


The Leading Cause of Death in the world

Cancer is the leading cause of death in the world. Therefore, Cancer control is the most important issue in the field of public health. Cancer therapy in the future should provide a high rate of cure and a low incidence of adverse effects for the patients.

What are Heavy Ions?

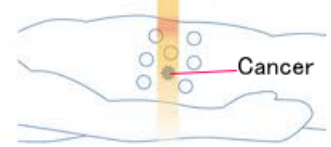
Radiation releases energy while traveling through space or matters in the form of waves or particles. Radiation composed of particles heavier than electrons is called a particle beam, and radiation composed of particles heavier than helium is specifically called a "heavy-ion" beam. Currently, carbon ion beams are used for heavy ion cancer therapy.



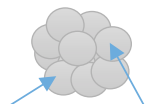
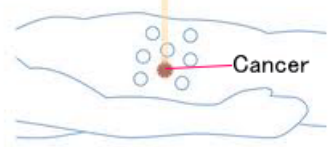
Heavy Ion Therapy

Heavy ions are accelerated to approximately 70% of the speed of light and applied to patients in order to treat deep-seated cancer within the bodies. Heavy ion cancer therapy allows the tumors to be treated without using invasive procedures such as surgery and without causing pain.

Conventional radiation therapy



Heavy ion beam radiotherapy



Neutron Proton

**Heavy ion beams
(Carbon ion $^{12}\text{C}^{6+}$)**



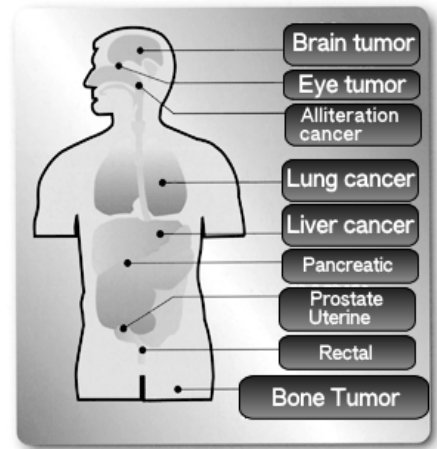
Accelerated to about 70% of the speed of light by a special accelerator...

By making individually customized treatment devices, the irradiation can be adjusted to the shape and depth of the cancer to be treated.

Advantage of Heavy Ion Therapy

- ① Superior dose Localization
Heavy ion therapy can severely damage the tumor while minimizing damage to surrounding tissues. Heavy ion therapy has less toxicity (adverse effects) than conventional radiotherapy.
- ② Effective Against Cancers Which are Resistant to Conventional Radiations
Heavy ion beams have stronger biological effects than X-ray. For example, heavy ion therapy is more effective against tumors such as osteosarcoma, which are difficult to cure with conventional X-ray radiotherapy.
- ③ Short Treatment Time.
The treatment time for heavy-ion radiotherapy is relatively short (3 weeks on average). Compared to conventional X-ray radiotherapy, which requires 6-7 weeks, the treatment time can be reduced dramatically.

Type of cancers which heavy ion Therapy is expected to be effective.



Processes of Heavy Ion Therapy

This flow chart is an example of heavy ion therapy. The processes can differ depending on facilities and individual circumstances.



Ex;) Number of treatment sessions

Lung/liver cancer	Prostate cancer
4 sessions	16sessions (4weeks)

※ More information or If you have any question please feel free to contact us.

How to refer Patient to Heavy Ion Medical Center

All inquiries from Overseas Patients and medical institutions should be directed to contact Japan Anbis International Co., Ltd. (JAI) Each inquiry received by JAI is relayed to Heavy Ion Medical Center for reply. Will advise with regard to the tests and examinations that we will need to perform, possible scheduling of those tests and examinations, and estimated costs associated with testing and treatment, as well as answering any other specific patient questions or concerns. We will arrangements Visa, accommodation, patient and family members travel with.

Inquiries

Phone: +852 8170 3552
 email: aki@anbis-int.com

Japan Anbis International Co., Ltd.



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Indications of Heavy Ion Therapy

<General rules for indications>

- ① The disease is pathologically diagnosed as cancer.
 - ② The disease measurable in the pre-treatment diagnostic imaging.
 - ③ No systemic metastasis is present.
 - ④ There is no previous history of radiotherapy in the area to be treated.
 - ⑤ The patient is well informed about his/her disease and has a capacity to make informed consent.
- Even if all of these conditions are met, a patient may not be indicated for heavy ion therapy for other Medical and technical reasons.

<Indication criteria for specific diseases>

Disease	Indication criteria (all of the conditions need to be met)	Expected treatment duration (subject to change)
Prostate	Clinical stage: T1c-T3N0M0 The Gleason score can be clearly evaluated by histopathological examination.	16 fractions/4weeks
Lung Cancer	Clinical stage: Stage I (non-small cell carcinoma) The patient is inoperable or refusing surgery.	4 fractions/1week
Hepatic cell carcinoma	The lesion(s) to be treated is (or are) limited within a part of liver. Child-Pugh class A or B	4 fractions/1week
Head & neck cancer	Mainly adenocarcinoma, sarcoma, or malignant melanoma. As a general rule, no lymph node metastasis is present.	16 fractions/4weeks
Post-operative recurrence of rectal cancer	Post-operative intra-pelvic recurrence (recurrence in anastomosis is excluded) No lesion is present outside of pelvis.	16 fractions/4weeks
Bone and soft tissue tumors	tin a post-operative case, the lesion to be treated is measurable. No intra-vascular tumor embolism is present. No artificial materials such as metals are present in the area to be treated.	16 fractions/4weeks
Lymph node recurrence	There are no other recurrent lesions. There is no limitation to the type of therapy which was previously applied to the primary lesion.	12 fractions/3weeks

Disease such as leukemia, malignant lymphoma, gastric cancer (primary disease), colon cancer (primary disease) Are not indicated for heavy ion therapy.

<Indication criteria for specific diseases>

	Items	Cost
1) Heavy ion radiotherapy costs are fixed, regardless of the number of sessions.	Heavy ion radiotherapy	Start from USD \$75,000
2) Travel and accommodation costs, as well as Japan Anbis International Co., Ltd. Service costs, are not included.	Medical Services and others	Variable (depends upon patient requirements)
	Equipment depreciation costs	USD \$3,000
3) Any consultation fees incurred are additional to the above	Administration	USD \$4,000
	TOTAL	USD \$82,000 + medical service cost