

# Proton radiotherapy

## - precision in radiation oncology

Proton radiotherapy is a highly advanced form of radiotherapy which in many cases is able to increase the efficiency of treatment of cancer patients and to reduce the duration of therapy and its side effects.

In proton radiotherapy, an accelerated and precisely controlled proton beam is directed to tumour sites located in any organ or tissue of the patient's body. Due to the unique properties of the proton beam, dose delivery may be more accurate than that using other modalities. As a result, proton therapy may be offered an alternative in the treatment of many types of cancers and lead to fewer complications.



*Gantry facility with a scanning proton beam for irradiation of tumours located at any site of the patient's body, except the eyeball*

Proton radiotherapy is not always the best choice for treating cancer, especially in cases of disseminated disease. The choice of treatment always remains with the medical expert.

Proton radiotherapy has been developed quite recently as a radiotherapy modality. It is currently available in over fifty centres in 14 countries around the world. The scanning proton beam gantries installed at the National Centre for Hadron Radiotherapy at the Cyclotron Centre Bronowice, are modern state-of-art devices, compatible with leading world technology.



## HEALTH

Proton radiotherapy may improve long-term symptom-free survival of patients and improve their quality of life by reducing the risk of side effects and of second cancers following radiotherapy, especially in children.



## COMFORT

Proton radiotherapy is pain free, does not affect patient comfort and may reduce complications.



## ACCURACY

The proton beam radiation dose is precisely delivered to the tumour volume, increasing the chance of recovery and reducing unnecessary exposure of healthy tissues to radiation.