

**Proton Therapy Center (PTC)** in Prague is the most advanced clinical European facility for cancer treatment. One of the top world facilities which is using the most modern technology - proton radiotherapy, with Pencil Beam Scanning technology and its high levels of accuracy being at the forefront of the treatment options.

As we guarantee top quality of treatment, therefore we use the most advanced diagnostic equipment, such as computed tomography (CT scanning), magnetic resonance imaging (MRI scanning) and positron emission tomography combined with computed tomography (PET/CT scanning).

During the visit of PTC you can see 3 gantry rooms. One of them equipped with spirometry unit Dyn'R, used for monitoring of chest movements. One of them equipped with anesthesia units - usually used for children. Fixed beam treatment room is available especially for treatment of brain tumours and prostate cancer.

The heart of the proton centre is Main Control Room, Cyclotron - PTC uses a Proteus 235 cyclotron , a cyclic high frequency accelerator, which accelerates protons up to an extremely high speed - thereby producing a beam of high energy. A proton beam of a particular energy and intensity is then safely transported to the body of the patient through a beamline - beam transport system, and this beam is modulated via individual nozzles within the treatment room before being directed at the target tumour.

