



PROTON
THERAPY
CENTER

Proton Therapy Center Czech



The main goal of radiotherapy is to irreversibly damage tumor cells, whereas the cells of healthy tissue are damaged “only reversibly” or not at all. Proton therapy currently comes closest to this goal.

To nejlepší
pro život.
The best
for life.

Proton Therapy

We are an advanced clinical center with the newest and highly exact technology **for treatment of patients with cancer. Proton therapy** is one of the methods of therapy for malignant tumors which offer the best prospects in the 21st century. In two-shift operation, we will be able to treat 2,500 patients a year. We have **5 treatment rooms** including a treatment room for the treatment of eye tumors and a full range of diagnostic equipment such as **CT, MRI and PET/CT camera. We have the newest methods of active beam scanning, robotic verification systems and facilities for fixing patients.** Proton therapy, the most advanced form of radiotherapy, has great benefits for the patients. These are mainly:

- Lower damage of healthy tissue
- Less side effects and complications
- Better chances of cure





Prof. Dr. Manfred Herbst
Medical Director

After having qualified in internal medicine, he changed to radiation oncology and gained his qualification at several centers in Switzerland (University of Basel) and Germany at the University of Erlangen. Afterwards, he became the Head and Professor of the Radiation Oncology at the University of Regensburg. At Rinecker Proton Therapy Center in Munich, he was present as the Medical Director from the very beginning in 2004, was present at the start up of the facility and decided about the indications and treatment plans.



Dr. Jiří Kubeš, Ph.D.
Head of Proton Therapy

Has gained work experience in leading positions as a radiation oncologist at several institutions. Besides being an active lecturer, he specializes in prostate carcinoma and head and neck tumors.



MSc. Vladimír Vondráček
Head of Medical Physics

Gained lots of experience in medical physics and nuclear protection at several institutions. Actively cooperates on educating medical physicists and preparing international projects in nuclear research. He appreciates working with the great technology of proton therapy.

CONTACT PERSON:

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WE OFFER:

- Complete medical examination
- Medical imaging (PET/CT, CT, MR)
- Treatment planning
- Patient positioning and immobilization systems
- Treatment itself
- Support and care by English speaking specialists

IF REQUESTED:

- Accommodation
- Personalized free-time activities
- Interpreter and translation into your maternal language

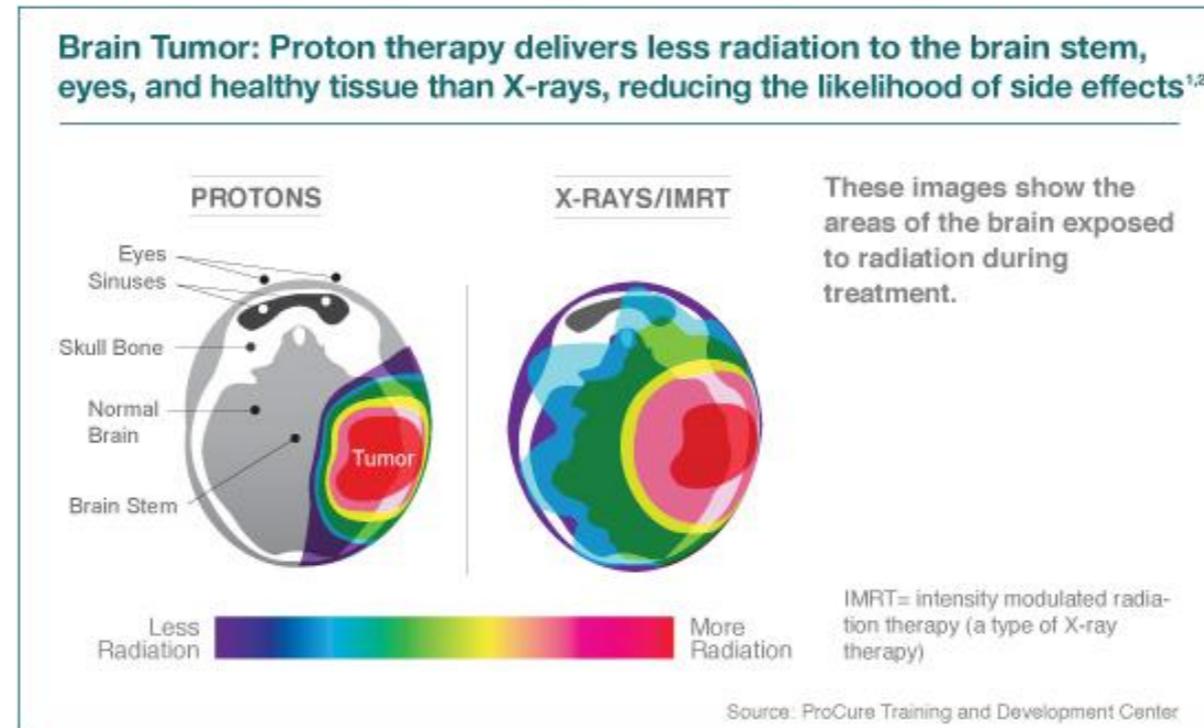


WE TREAT:

- **Pediatric tumors**
- **Head and neck tumors**
- **Tumors of the brain and base of the skull**
- **Malignant melanoma of the eye**
- **Lung tumors**
- **Prostate cancer**
- **Pancreatic cancer**
- **Intestinal tumors**

Indication

Low grade gliomas
Base of skull tumors
Paraspinal tumors
Meningeomas
Solitary brain metastases
Arteriovenous
malformations



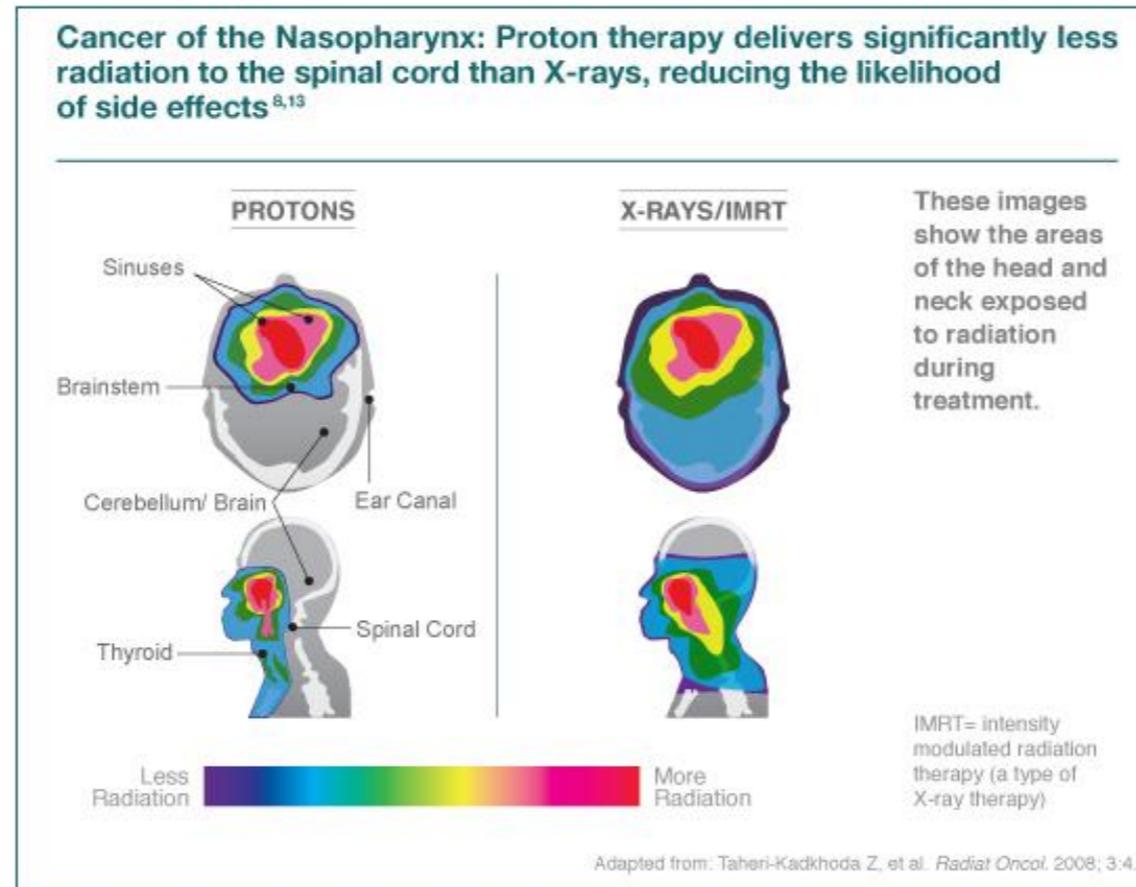
Benefits

Better dose distribution
Protection of healthy
tissue
Less of urgent and
chronic complications

Proton therapy does not affect the healthy eye and the surrounding vital structures of brain.

Indication

Tumors of: paranasal
sinuses
nasopharynx
oropharynx
larynx
salivary glands



Benefits

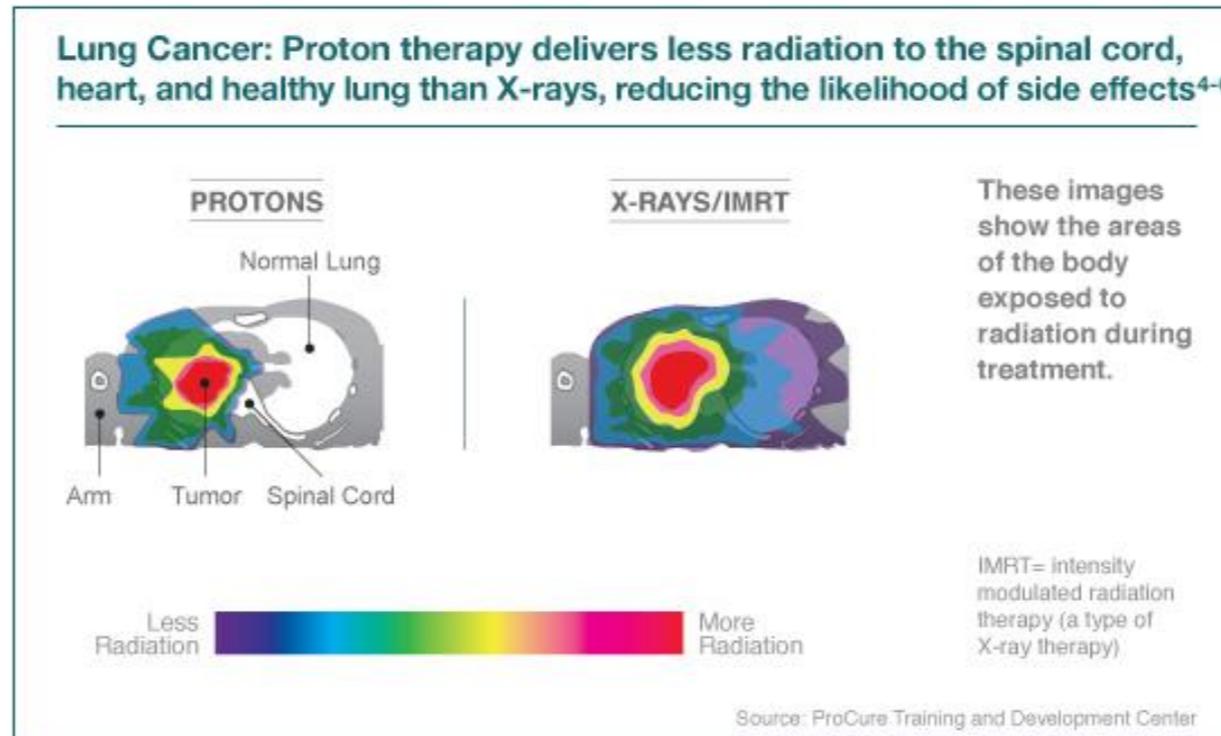
Lower risk of blindness
Reduction of xerostomia
Lower risk of dysphagia
(acute and permanent)

Proton therapy decreases the risk of damaging swallowing paths and salivary glands and keeps you the ability to eat what you like.

Side Effect	Protons N=200*	Conventional Radiotherapy (Photons)
Blindness (maxillary sinus tumors)	2%	15%
Xerostomia (Dry mouth)	< 5% (with protons alone)	100%
Dysphagia	12 %	100% 80% require liquid nutrition
Require liquid nutrition	0%	30%

Indication

Non-small cell lung
cancer
Oesophageal cancer



Benefits

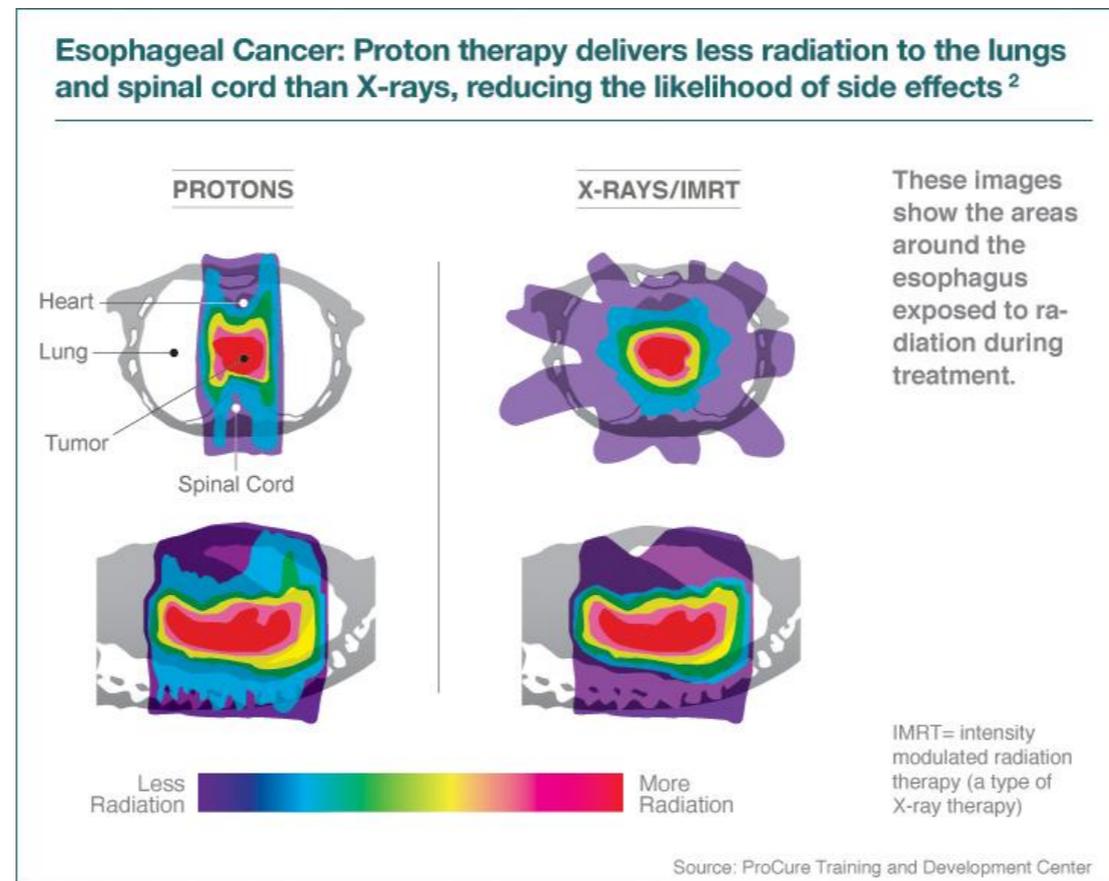
Higher dose to tumor
Lower dose to healthy
lung
Irradiation of larger
tumors with higher dose

Proton therapy increases the
chance of a cure in lung cancer
and saves the healthy lung.

Acute Side Effects	Protons	Conventional Radiotherapy (Photons)
Nausea/Vomiting	0%	30%
Dyspnea	0%	16%
Esophagitis	<5%	31%
Fatigue	<5%	23%
> 5 lb. weight loss	0%	34%

Indication

Pancreatic cancer
Hepatocellular cancer



Benefits

Sparing of small intestine
Sparing of kidneys
Sparing of liver tissue
Dose escalation to
tumors

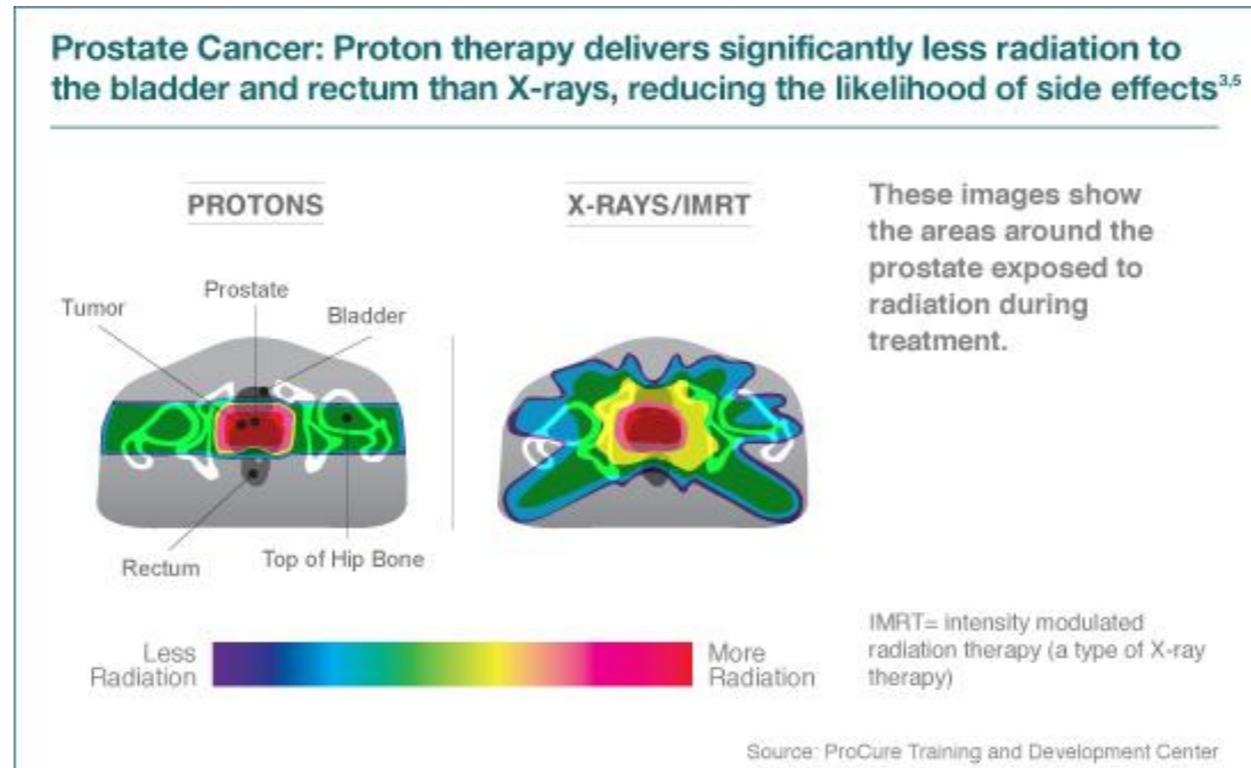
Proton therapy offers a new chance to cure tumors of pancreas, liver, esophagus or rectum.

Indication

Primary curative
radiotherapy

Adjuvant or salvage
radiotherapy after surgery

Proton therapy significantly reduces the risk of impotence, incontinence and rectal side effects.



Benefits

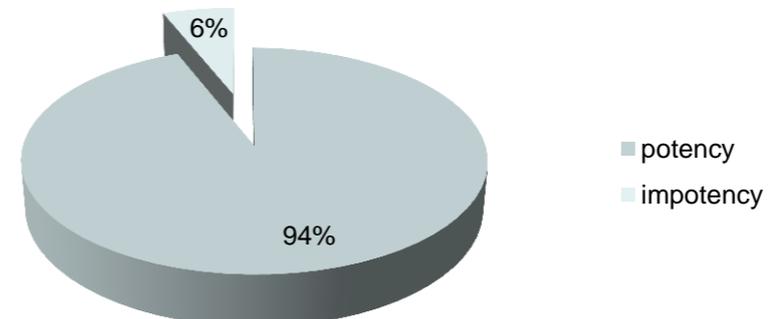
Lower risk of rectal
bleeding

Lower risk of impotence

Shorter course of
radiation

Dose escalation

Male Potency 18 Months After Proton Therapy of Prostate Cancer



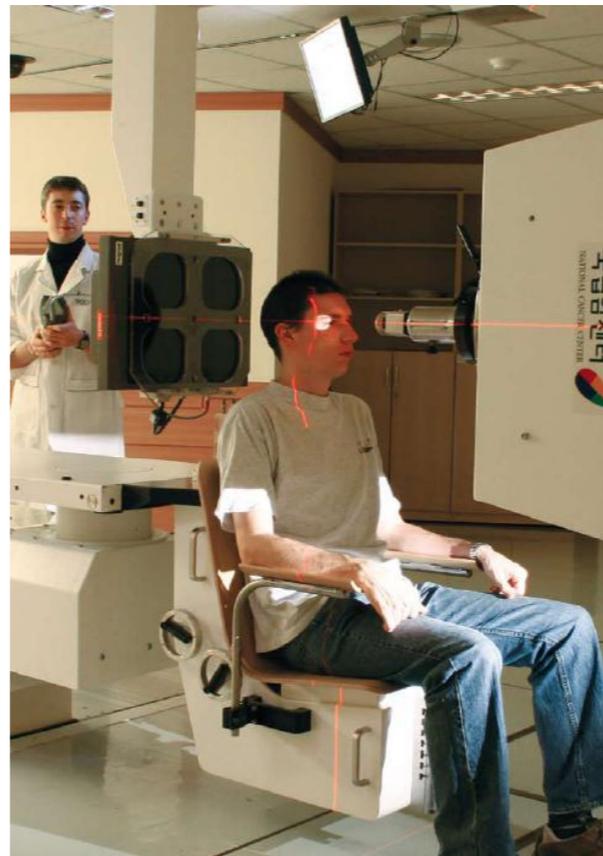


Indication

Melanoma

Hemangioma

Age-related macular degeneration



Benefits

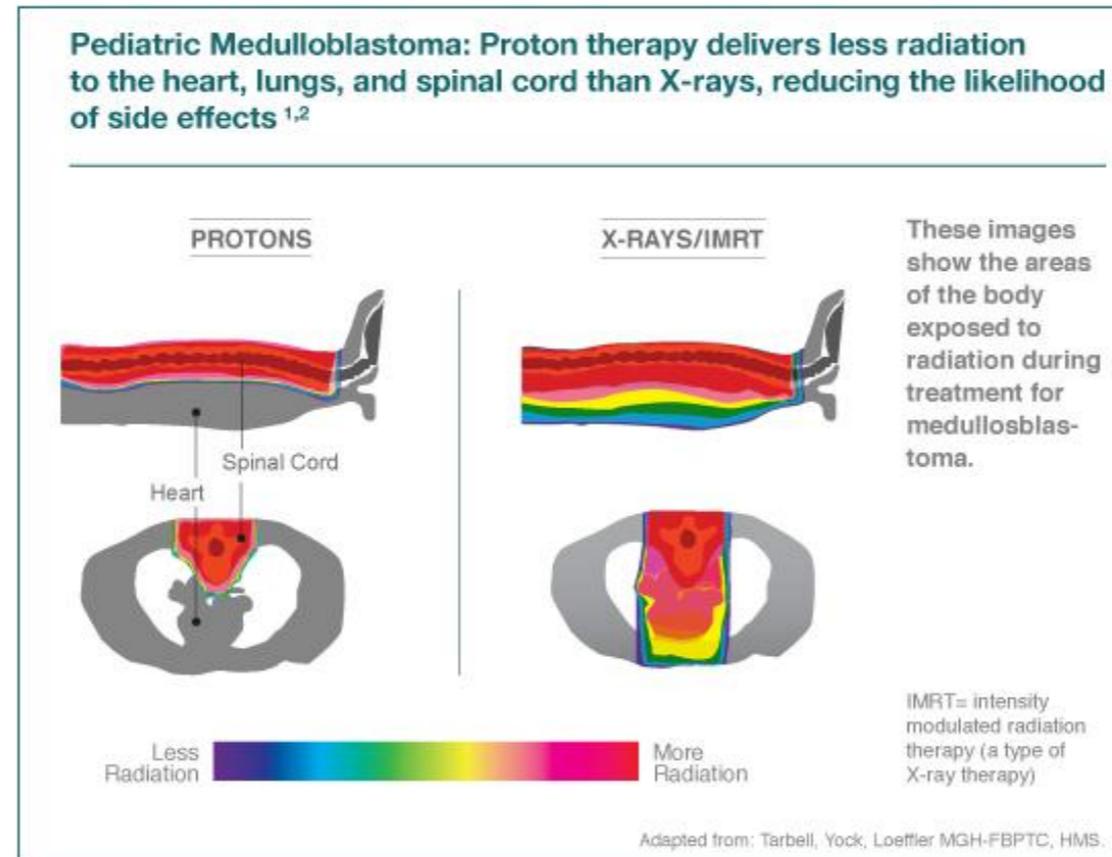
Same results as surgery with
saving vision

Short and effective treatment
Chance of improving sight for
nonmalignant diseases

Proton therapy enables to cure the eye tumor with preserving the quality of vision.

Indication

Medulloblastoma
Craniopharyngeoma
Gliomas
Ependymomas
Sarcomas



Benefits

Lower risk of:
growth abnormalities
cognitive dysfunction
secondary cancers

Proton therapy significantly decreases the impact of treatment on hormonal function, growth and development of children.

Side Effect	Protons	Conventional Radiotherapy
Restrictive Lung Disease	0%	60%
Reduced exercise capacity	0%	75%
Abnormal EKGs	0%	31%
Growth abnormality	20%	100%
Risk of IQ score < 90	15%	25%