2025 OHSAD Kurultayı

MEDİTEL SAĞLIK GRUBU

"***1984***'den Günümüze"

12/04/2025

www.meditel.com.tr
www.medko.com.tr
www.digi-med.com.tr

www.meditelhealthcare.com

MEDITEL GROUP

Since 1984

Grup Şirketleri Yapısı

Meditel A.Ş

Distribütörlük;
Satış, Kurulum ve Teknik Servis

- Meditel Healthcare Bulgaristan
- Onco Systems Romanya & Moldova
- Meditel Healthcare Kazakistan
- Meditel Rusya

Medko Oncology

Hizmet Alımı, PFI ve Sağlık Yatırımları

- Türkiye, Romanya & Kazakistan
- MEDKO UK

Dijimed

IT, DMO Satış, R&D ve Üretim

- Radon

%100 Yerli Üretim – Radyasyon Onkolojisi

- RadAir

AI Auto Konturlama

- Diğer Yatırım İştirakleri

*Rusya Operasyonları Ertelenmiştir. Diğer Ortaklıklar belirtilmemiştir

Sayılarla Meditel Healthcare

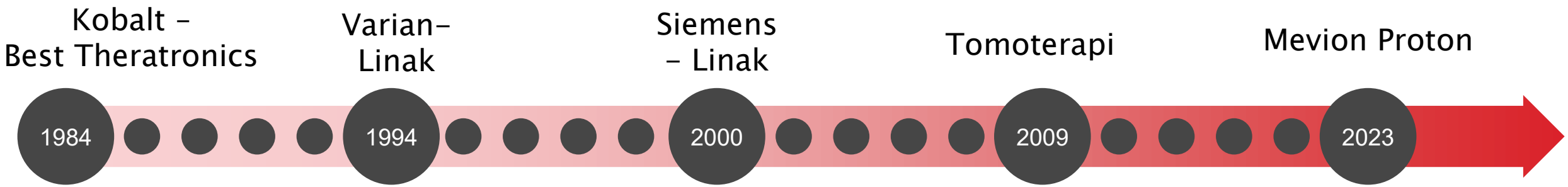
- Dijital Röntgen
  - ≈1000 Dijital Röntgen, %25'in üzerinde Pazar Payı
- Dijital Mamografi
  - ≈25% Pazar Payı, ≈ 170 Dijital Mamografi
- Anjiyografi
  - ≈75 Anjiyografi, Tek Hastanede 5 Anjiyografi

- Radyasyon Onkolojisi
  - Türkiye'deki İlk ***SSDL*** Kalibrasyon Labratuarı
  - 22 Adet TomoTherapy ve 10 Adet Radixact
  - %65'in üzerinde Dozimetre Pazar Payı
  - Romanya: 3 TomoTherapy ve 1 Radixact
  - Bulgaristan: 1 TomoTherapy ve 1 Cyberknife
  - Kazakistan: 2 TomoTherapy ve 3 Radixact

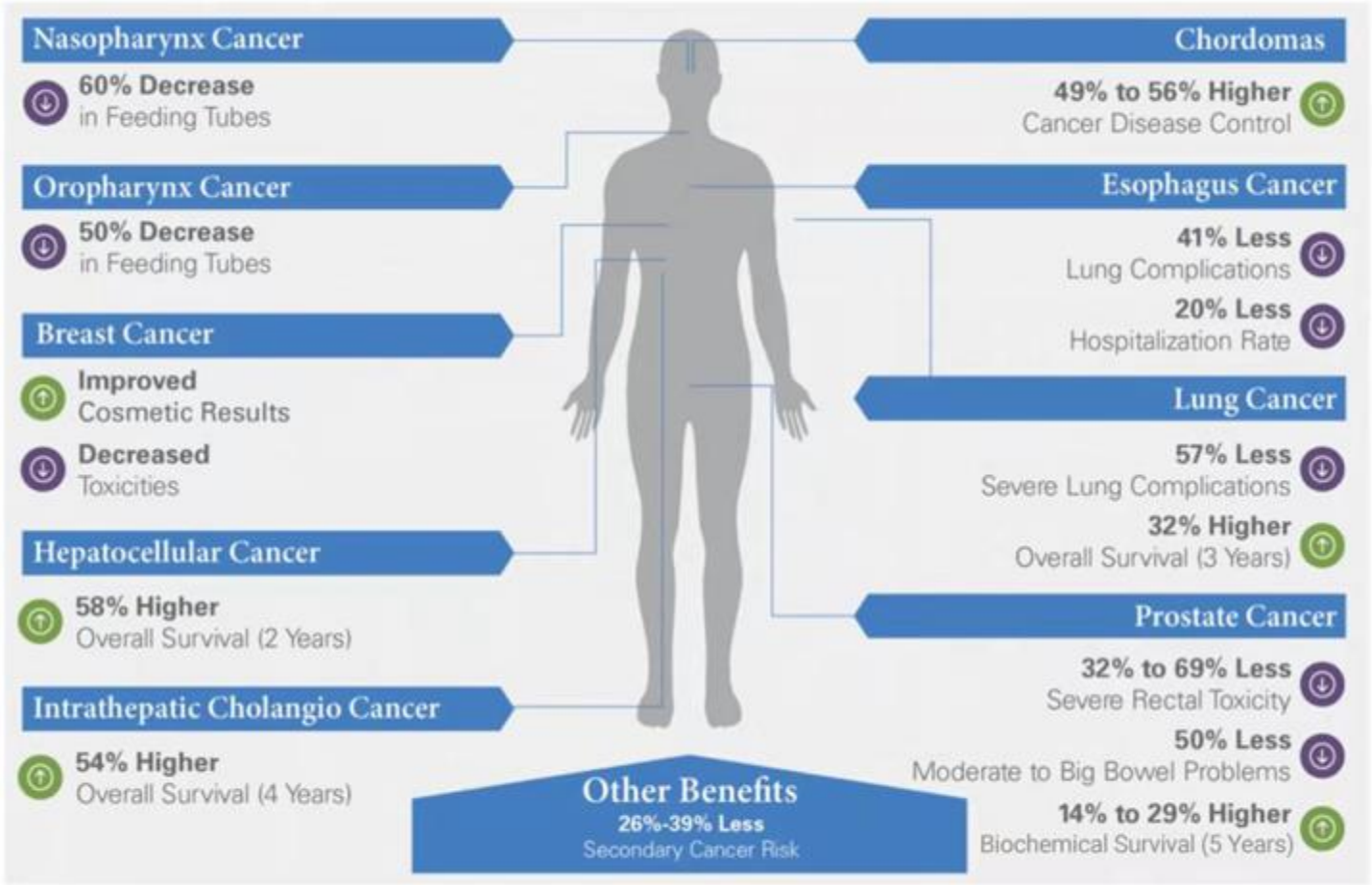
- Meditel Healthcare
  - ≈ 20 Radyasyon Onkolojisi Merkezi ve Radyoloji Klinik, Cihaz & Merkezleri

"Since 1984" meditel

Meditel Healthcare Radyoterapi Geçmişi



Clinical Benefits of Proton Therapy are Well Established



Source: MD Anderson Proton Pals Patient Support Group

- *Proton therapy is the most technologically advanced method to deliver radiation treatment to cancerous tumors available today.*
- *Both x-rays and protons damage cancer cells but, unlike standard radiation therapy, proton therapy deposits the majority of the radiation dose directly into the tumor. For this reason, proton therapy delivers less radiation to healthy tissues and organs resulting in fewer, less severe short and long-term side effects than standard radiation therapy.*
- *Research has demonstrated that proton therapy significantly reduces the risk of developing a secondary cancer from initial radiation treatments.*
- *Treatments are delivered on an outpatient basis and range from 15 – 45 minutes in length, 5 days a week, for 4-8 weeks depending on the specific cancer diagnosis.*
- *Over 800 clinical studies have been published on proton therapy with the number of studies expanding every year.*
- *Over 170,000 patients have been treated with proton therapy worldwide with over 75,000 of those in the United States.*
- *The United States Food and Drug Administration (FDA) approved proton therapy for treatment of cancer in 1988.*
- *The first proton therapy treatments for cancer were delivered in 1954.*

https://www.proton-therapy.org/patient-resources/fact-sheet/

NEW ERA at PROTON THERAPY WORLD

S250i Fully Compact Proton Therapy

S250Fit Linac Size Proton Therapy

MEVION
medical systems

MEVION medical systems

In 2004, Mevion was founded by Harvard Scientists and MGH Clinicians with patents developed in partnership with MIT.

Our Mission:

To provide physicians and their patients access to high quality, cost-effective proton therapy solutions, and to help establish this superior treatment modality as a standard of care for patients worldwide.

HARVARD UNIVERSITY

MGH 1811

Massachusetts Institute of Technology

US-based Proton Vendor

Littleton, Massachusetts, USA

Mevion Global Expansion Mission

Supports Asia Region

Asia facility in Kunshan, China | Capacity 20+ systems per year

*All products shipped to Turkey and Europe will be from Massachusets, USA factory

An Expanding Mevion Network

20+

Clinical partners worldwide

9 NCI

More **US NCI-designated cancer centers** have selected Mevion for proton therapy than any other proton therapy supplier

50%

of announced US proton centers in the past 5-years in the USA are Mevion systems

With new orders and forecast, by the end of 2027, it is estimated to be %75+

Making History in Proton Therapy

1954 — **First** patient treated with protons

BERKELEY LAB
Lawrence Berkeley National Laboratory

1961

1990 — **First** proton therapy center within a hospital

LOMA LINDA UNIVERSITY
MEDICAL CENTER

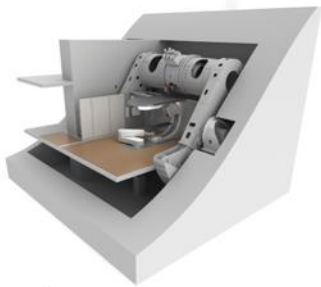
2001

2006 — **First** IMPT Proton Treatment

THE UNIVERSITY OF TEXAS
MD Anderson Cancer Center
Making Cancer History®

2012 — Entering the compact era.

MEVION S250i



MEVION medical systems

2023+ — **First** Proton System in a LINAC vault

Stanford HEALTH CARE

PT 1.0 - Early Trails

First patients treated at Harvard with cyclotron

HARVARD UNIVERSITY

PT 2.0 - Multi-Room Proton Systems

First Commercial Proton System

MGH 1811
MASSACHUSETTS GENERAL HOSPITAL

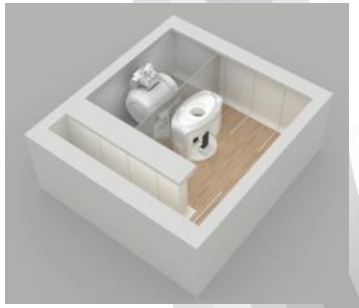
PT 3.0 – Compact

First patient treated with compact proton system

SITEMAN CANCER CENTER
Washington University in St. Louis School of Medicine
BJC HealthCare

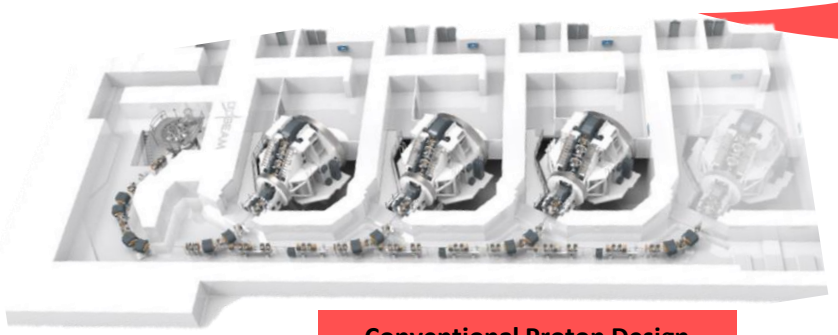
PT 4.0 - FIT in LINAC

MEVION S250-FIT



MEVION medical systems

Proton Technology Evolution

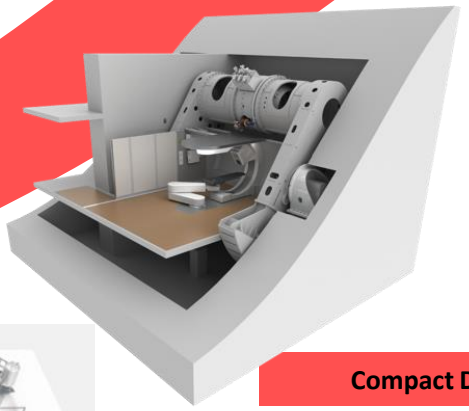


Conventional Proton Design

1960’dan Günümüze

Semi Compact Design

2010’dan Günümüze



Compact Design

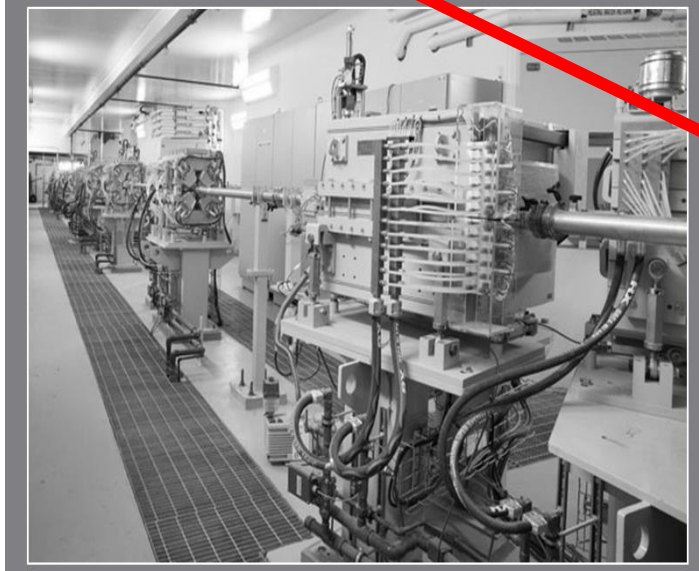
2012’den Günümüze

Linac Size Design

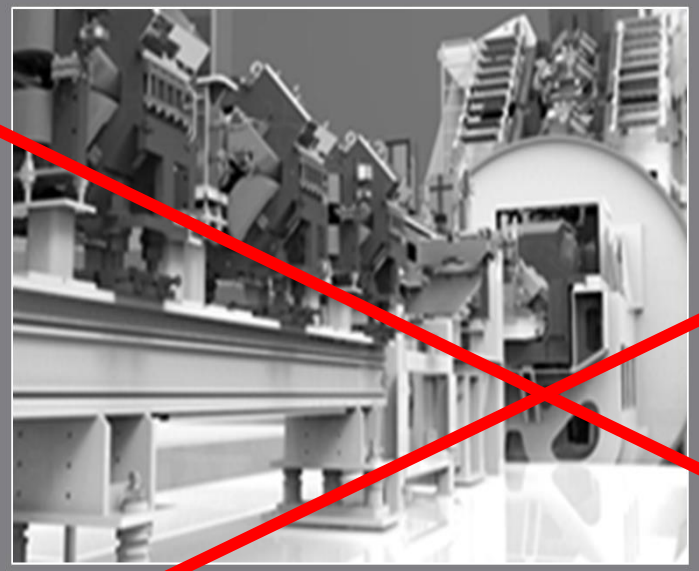
2023’den Günümüze

Eliminating Cost and Complexity

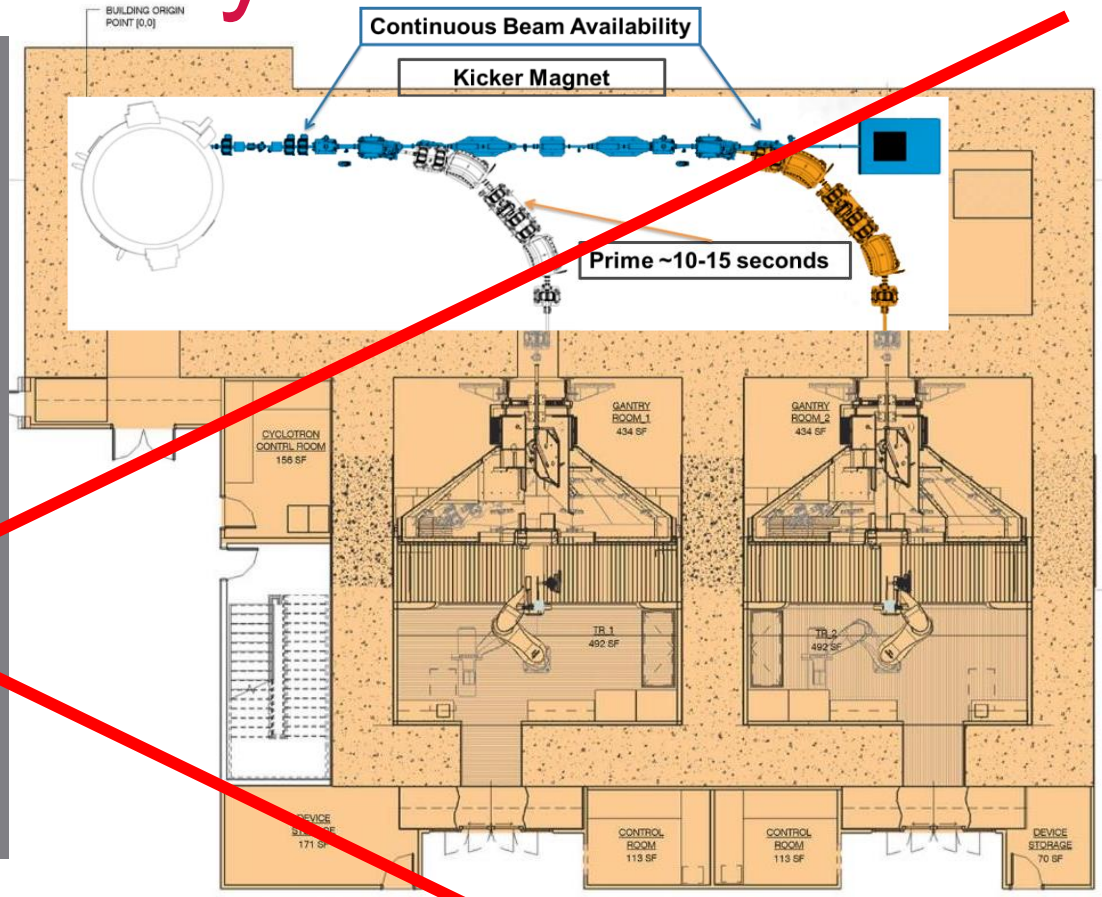
OTHER PROTON THERAPY SYSTEMS

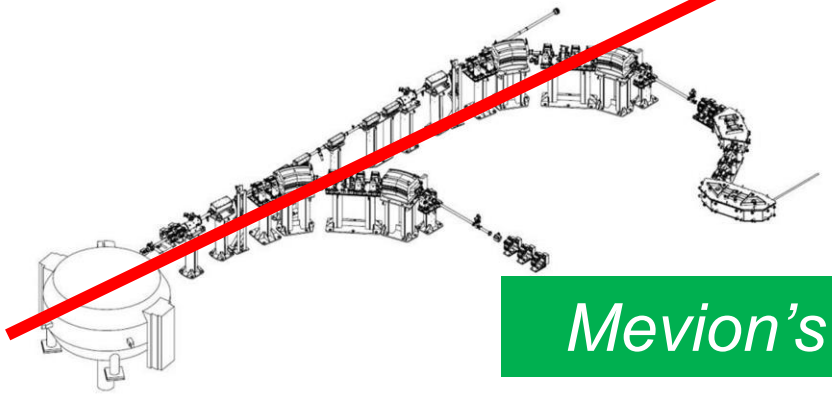


Competitive Multi-Room System



Competitive Single Room System





- Problems of Beamline Structure
- Not Efficient / Cannot treat patients at the same time

Mevion's unique architecture eliminates all of these problems.

Proton Terapi Gelişimi

Karbon ve Konvansiyonel Proton

Conventional (XXL) Multi-Room Center

- 200-500M USD Yatırımlar
- Yüksek Operasyonel Maliyet
- Büyük Alan ve İnşaat
- Eski Teknoloji

Kompakt Proton

MEVION S250i HYPERSCAN

- 40-45M USD Yatırımlar
- Düşük Operasyonel Maliyet
- 180m2 Taban Alanı x 3 Kat
- Radyoterapi Bölümü ile Bütünleşik
- Tüm Proton Tedavileri Mümkün
- Dünyada 20+ Adet Tedavi Ediyor

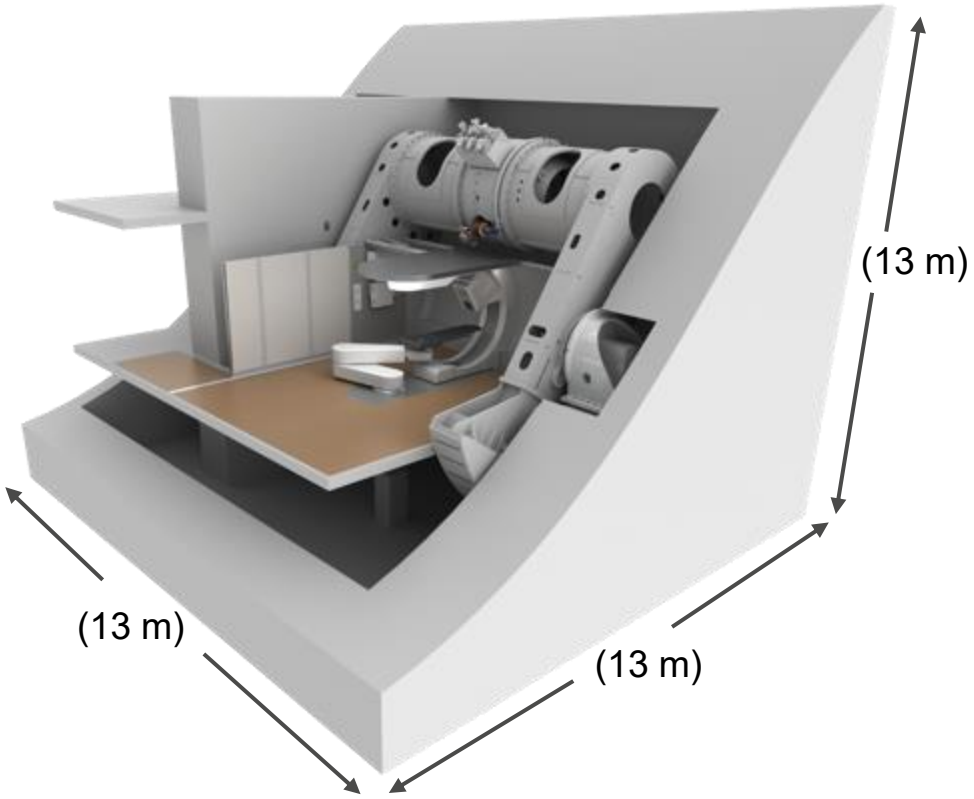
Linak Boyutunda Proton

MEVION S250-FIT LINAC Replacement

- ~35M USD Yatırımlar
- En Düşük Operasyonel Maliyet
- ~80m2 Taban Alanı (linak odası uyumlu)
- Radyoterapi Bölümü ile Bütünleşik
- Tüm Proton Tedavileri Mümkün
- Stanford Üniversitesi (ilk kurulum)

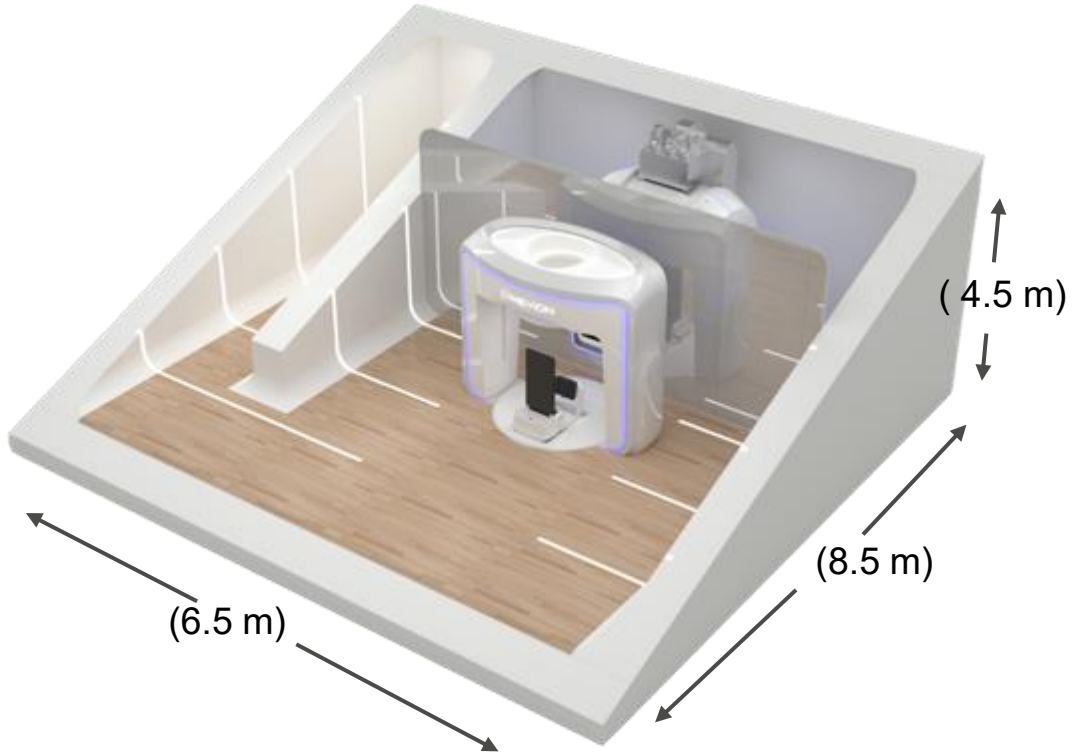
Proton Devolopments with Mevion

Fully Compact Proton Gantry



MEVION S250i

Linac Vault Size Proton System



MEVION S250Fit

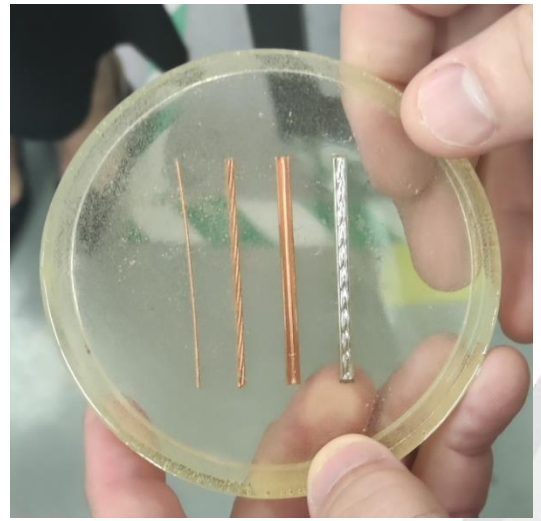
First installation were already made to Stanford University

Proprietary Medical Proton Accelerator

IBA – 250 Ton
Isochronous Cyclotron

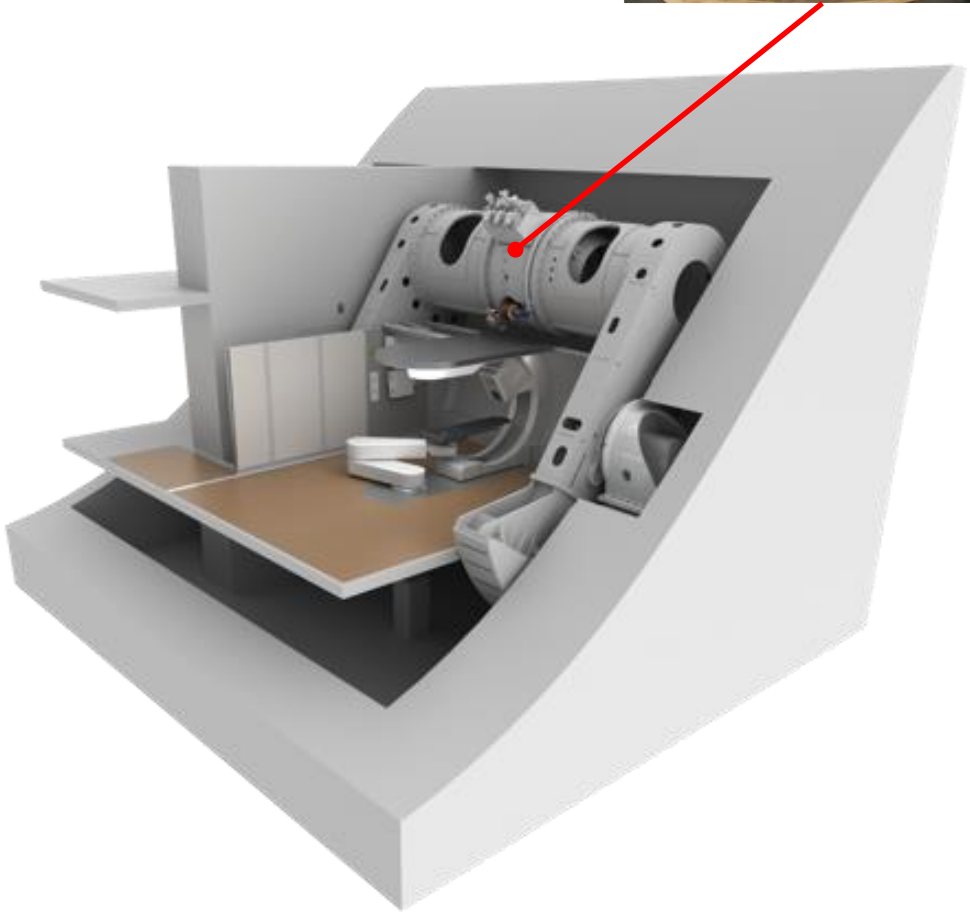
Varian – 90 Ton
Isochronous Cyclotron

IBA – 50 Ton
Synchrocyclotron



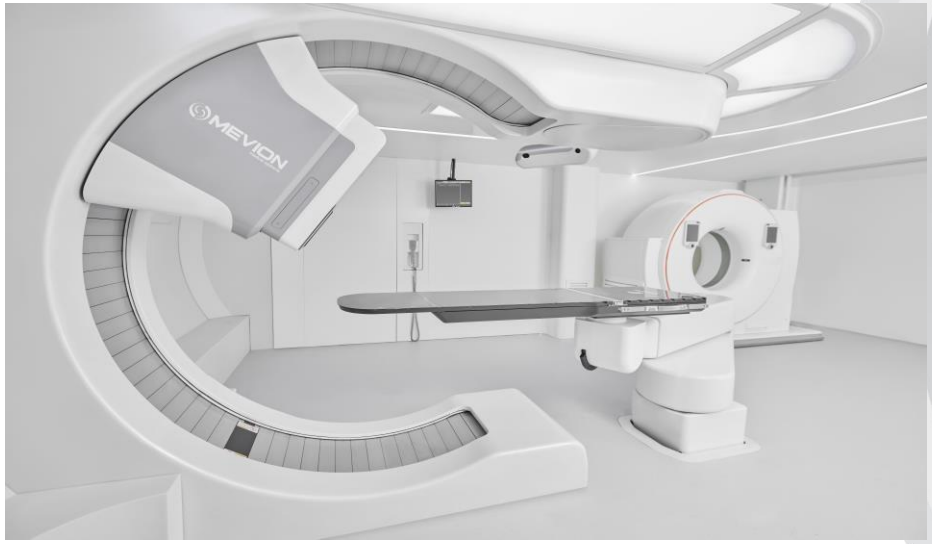
Mevion – 15 Ton
Synchrocyclotron

World's SMALLEST high-energy proton accelerator for medical use, enabling the most compact proton therapy system on the market



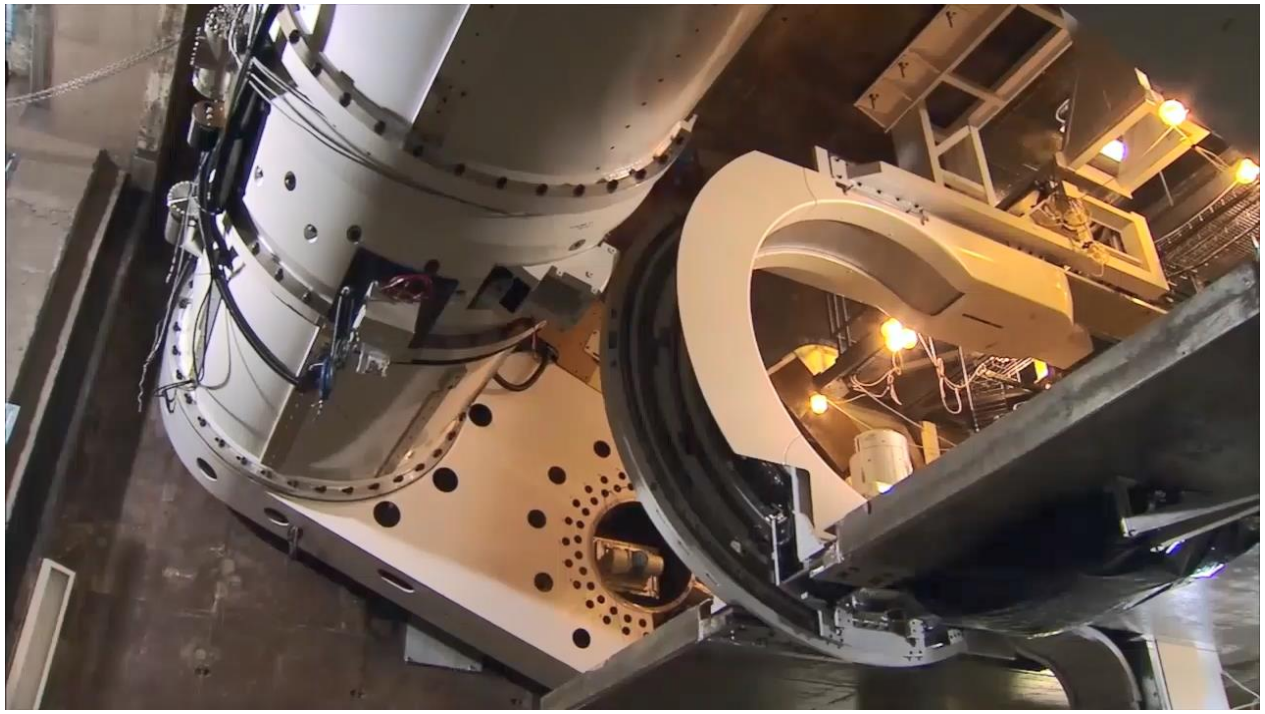
Mevion S250i

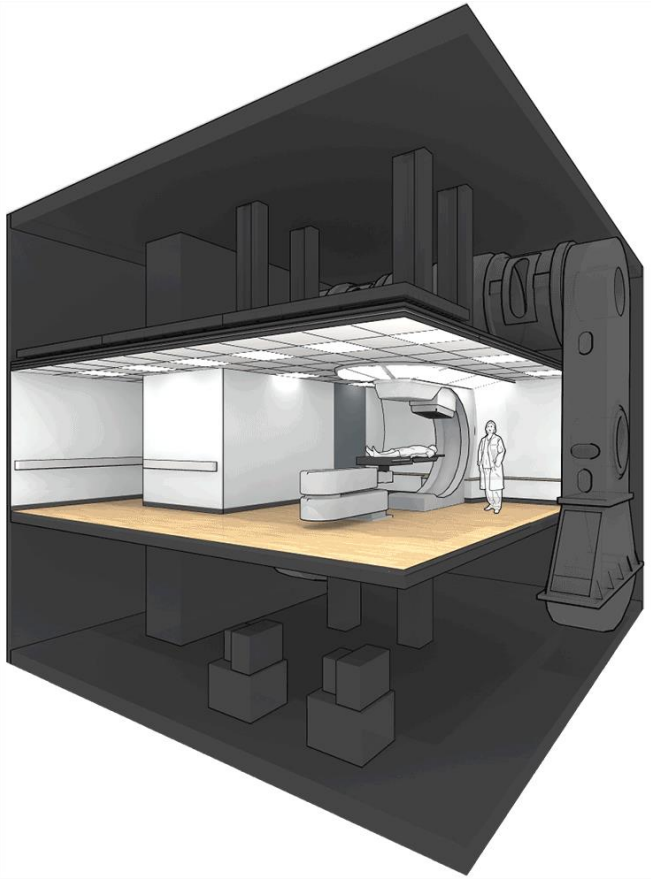
- Compact footprint
- Open platform IGRT solution with diagnostic CT
- All Mevion Systems are compatibale with SGRT, Auto Gating
- Hyperscan Pencil Beam Scanning
- Adaptive & Arc IMPT delivery (Smart Arc)
- Hypofractionation, Radiosurgery and On Table Adaptive
- FLASH ready with 200 Gy/sec dose rate

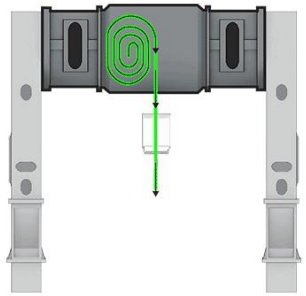


Enabling Compact Proton Therapy

Mevion S250i



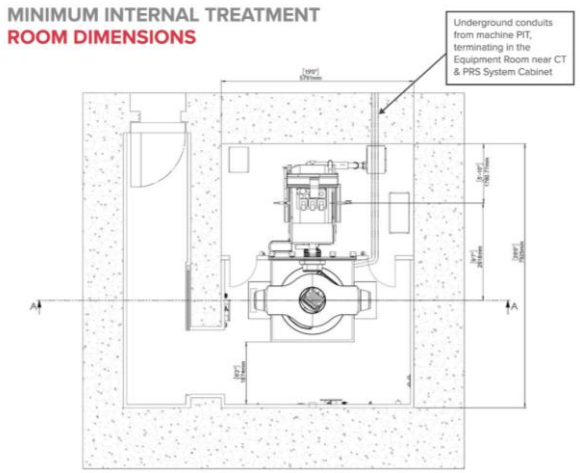




What if **Proton Therapy** could 

in your **LINAC Vault**?

Estimated Construction Areas

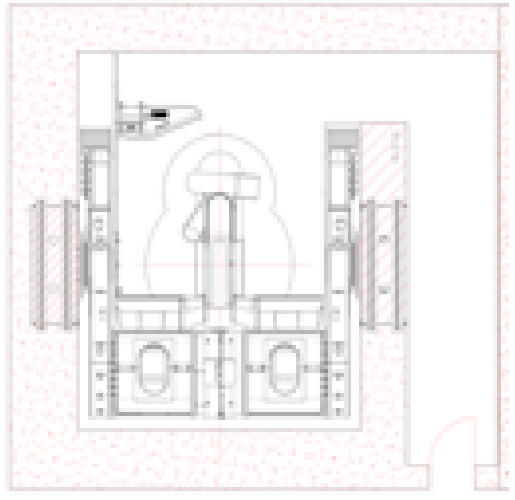


~60-80m2

Mevion S250 Fit

13 m

13 m

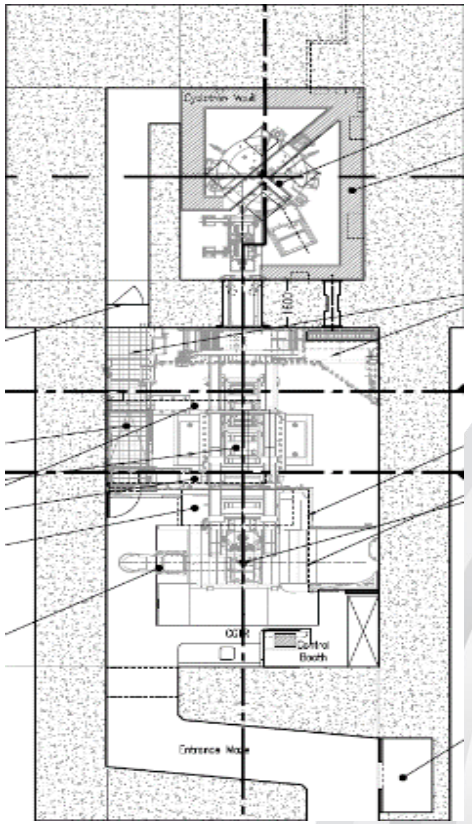


Vault Area:	170 m^2
Ancillary Area:	20 m^2
Vault Height:	11 m
Vault Vol.:	2000 m^3
Concrete Vol.:	1000 m^3

Mevion S250i Compact

13 m

27 m

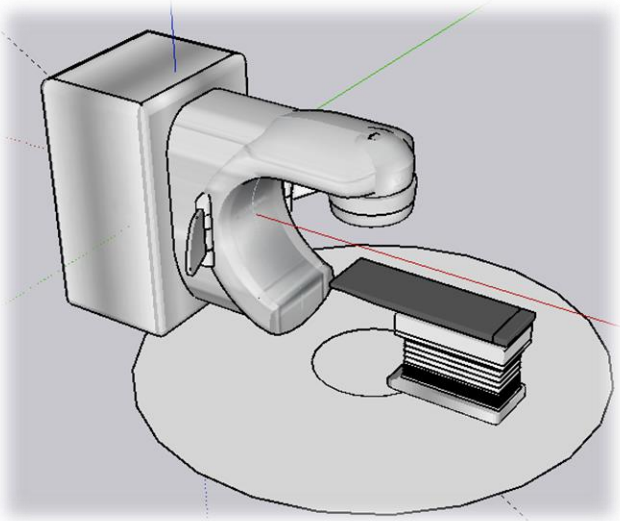


Vault Area:	310 m^2
Ancillary Area:	240 m^2
Vault Height:	10 m
Vault Vol.:	3100 m^3
Concrete Vol.:	1900 m^3

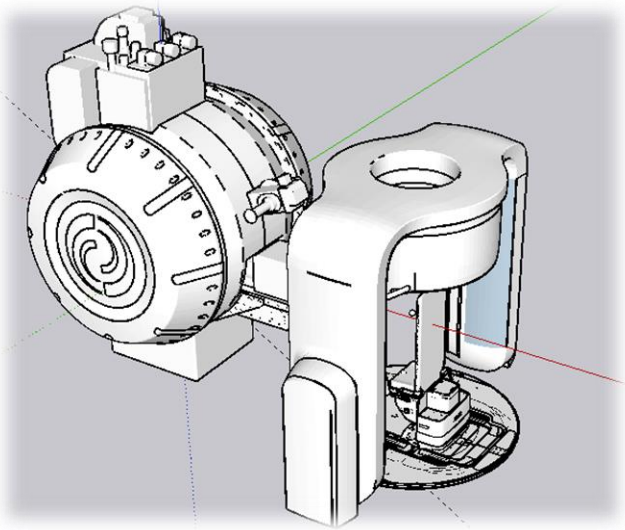
*estimates based on previous experience

How Different is FIT from a LINAC size?

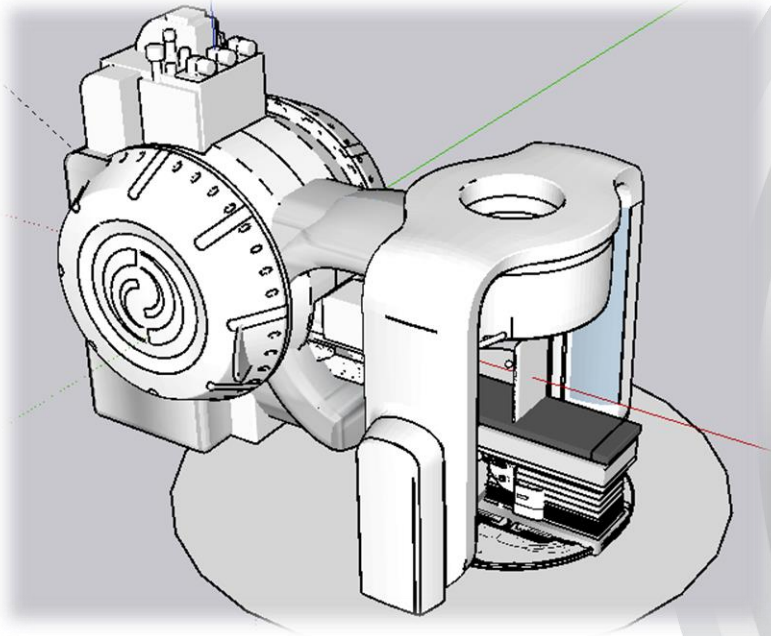
LINAC



MEVION S250-FIT



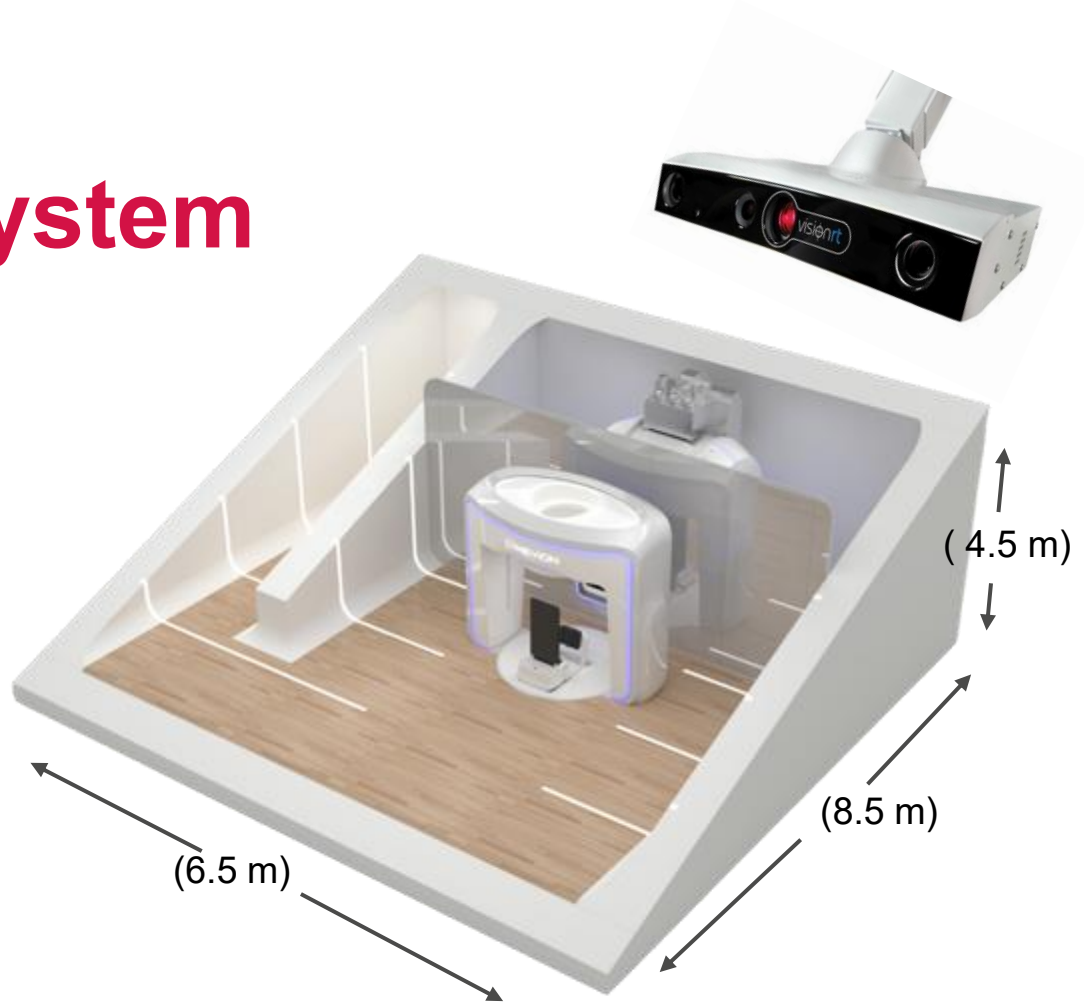
MEVION S250-FIT
vs. LINAC



in partnership with

MEVION S250-FIT
Linac Size Proton Therapy System

- HYPERSCAN IMPT with pMLC
- Full 360 beam access with upright positioning
- Diagnostic dual-energy CT at treatment iso-center
- Adaptive & Arc IMPT delivery (Smart Arc)
- FLASH enabled with fast energy switching



FIT in a LINAC Vault

Clinical Space Internal Dimensions

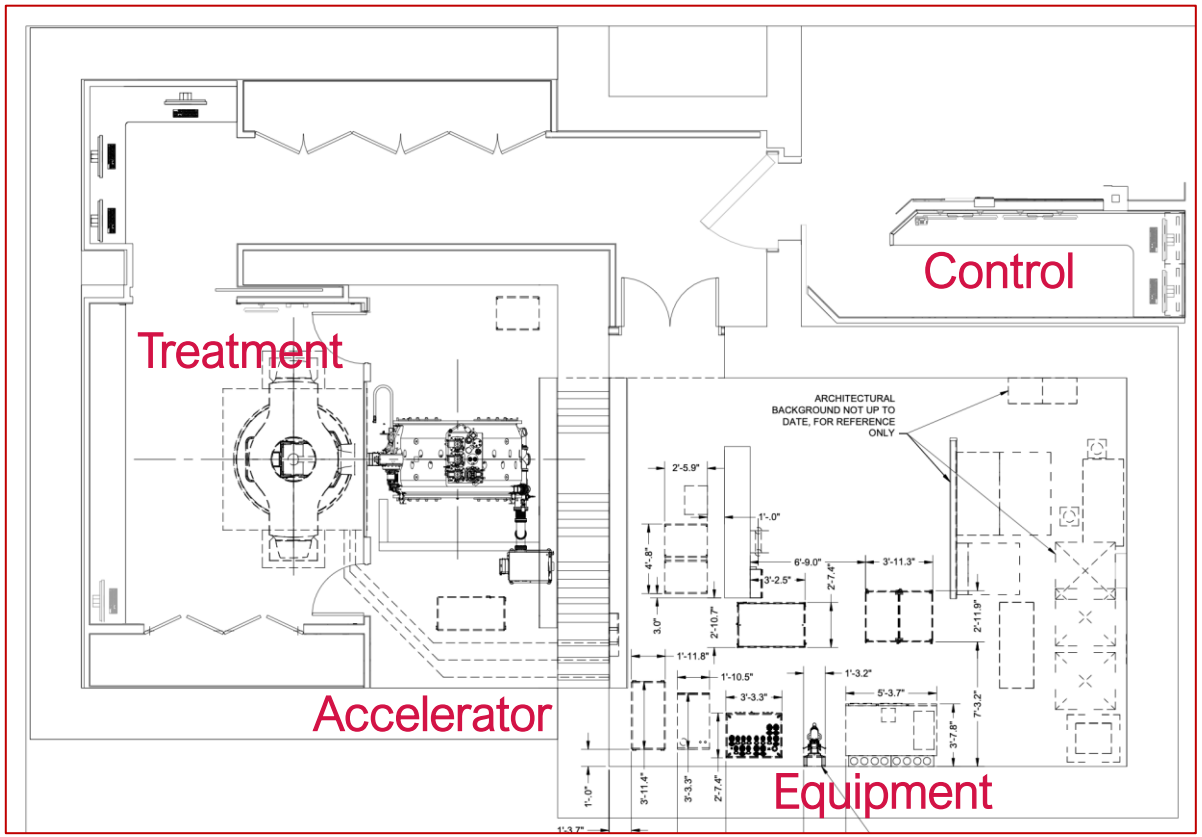
Mevion Partners with Stanford Cancer Institute to Bring the Proton Therapy System in a LINAC Vault

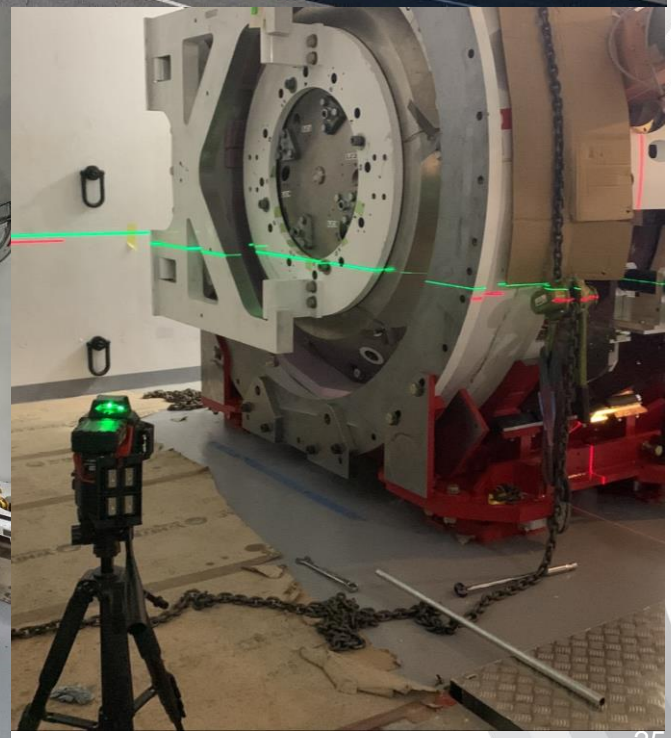
1st

Stantec

The MEVION S250-FIT Proton Therapy System is not yet available for clinical use.

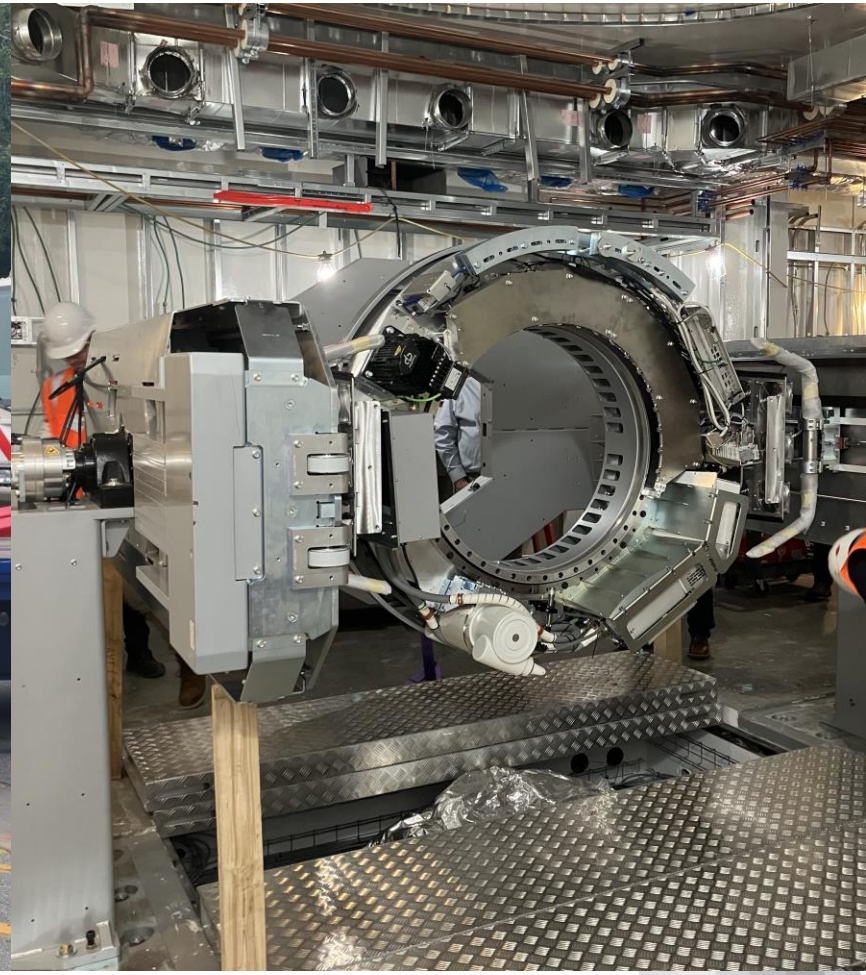
FIT Proton Therapy at Stanford Health





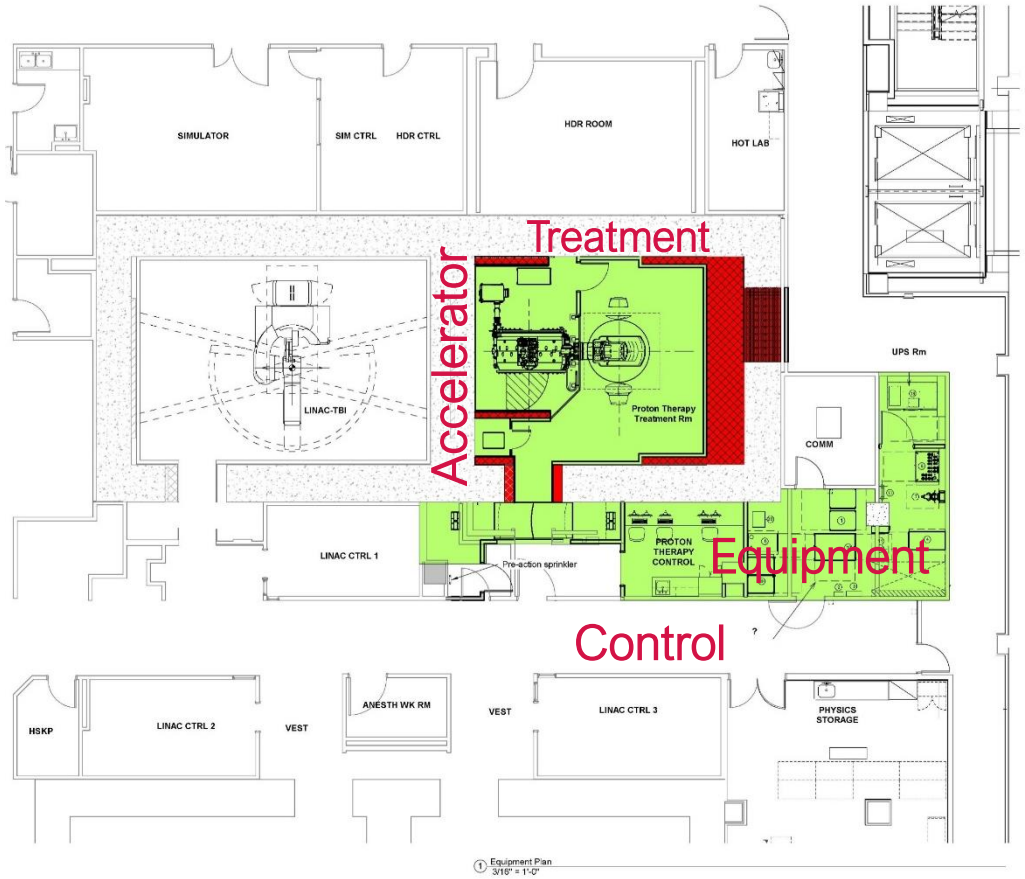
Accelerator Ship and install like an MRI

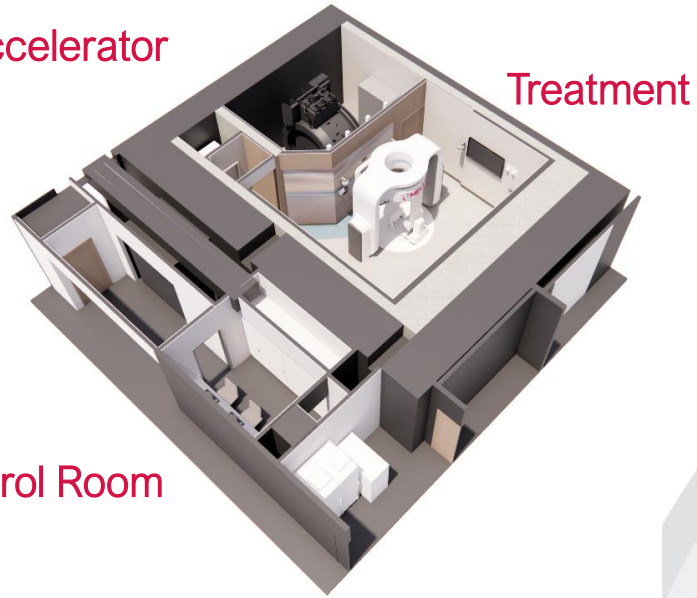
FIT Proton Therapy at Stanford Health



Nebraska Medicine

Renovation of an Existing Linac Vault

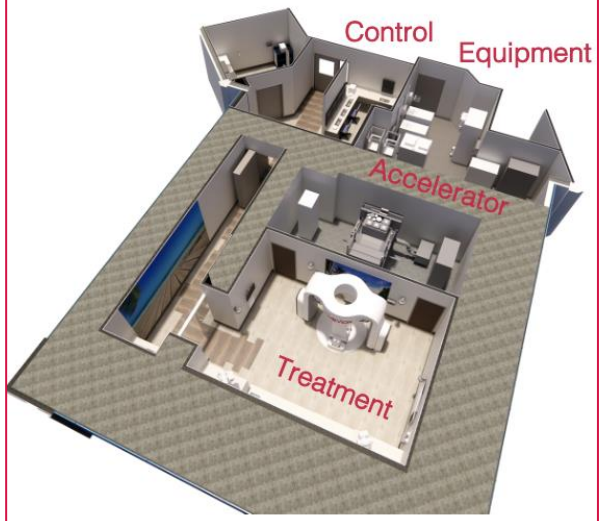




Mevion FIT Delivering Advanced & Flexible Proton Therapy

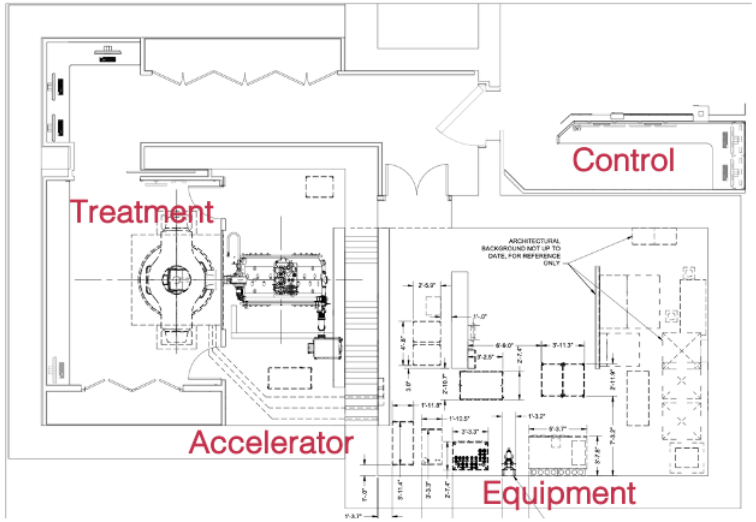
Building a New Vault

BayCare, Tampa, FL



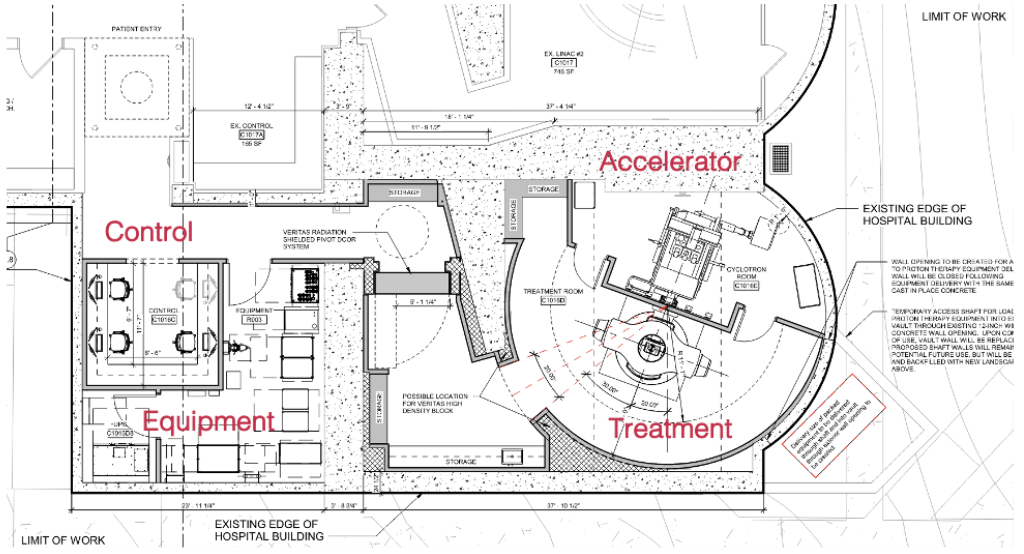
Expanding an Existing Vault

Stanford Health, CA



Renovating an Existing Vault

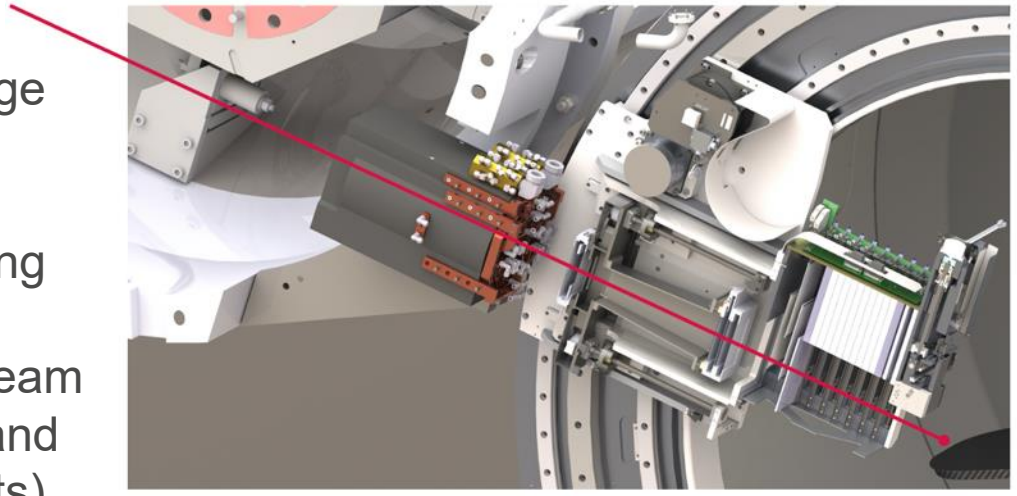
Atlantic Health System, NJ



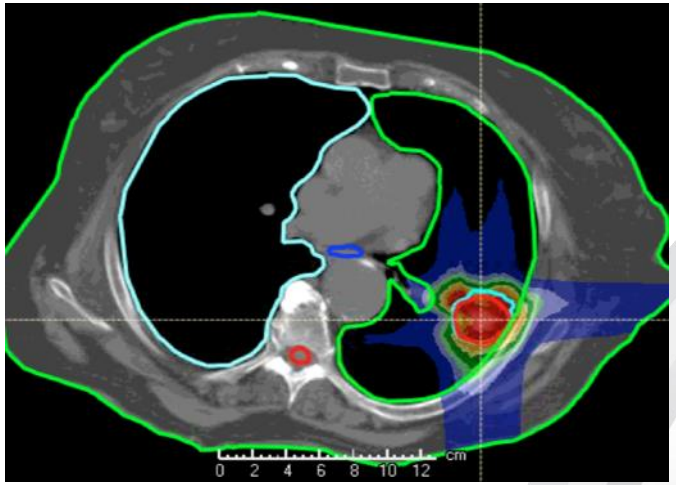
Mevion Proprietary Core Technology

HYPERSCAN Fast Volumetric Scanning

- Target motion is a challenge for PBS
- Longer treatments have greater risk of motion during beam delivery
- Motion occurring during beam delivery can result in hot and cold spots (interplay effects)



Direct beam eliminates inefficiency of beam transport : **50 ms layer switching**



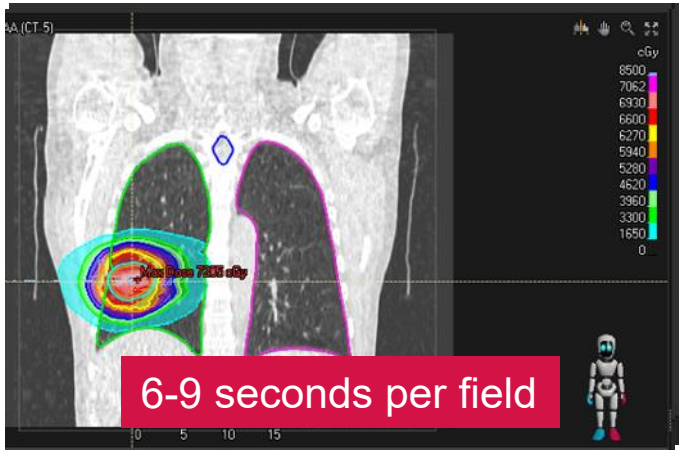
Deliver 2 Gy to a 4 cm sphere in less than 5 sec.

Multi-phase delivery

126 cc multi-phase integrated target volume

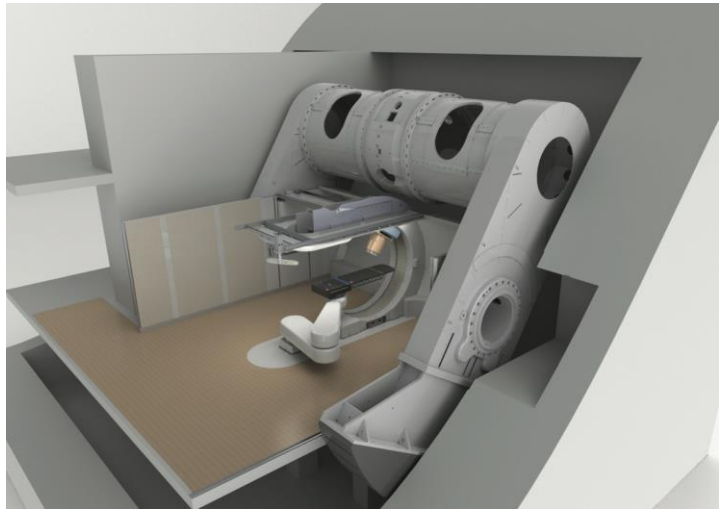
Single-phase delivery with HYPERSCAN

44 cc tumor target



Mevion HYPERSCAN is the fastest volumetric scanning system and we are continuously improving the delivery speed

Track Record in Innovation



Invention of ***Compact***, single-room proton therapy has changed the industry

2013

First commercial **MLC** for PBS (Pencil Beam Scanning) systems enables true IMPT capabilities

2018

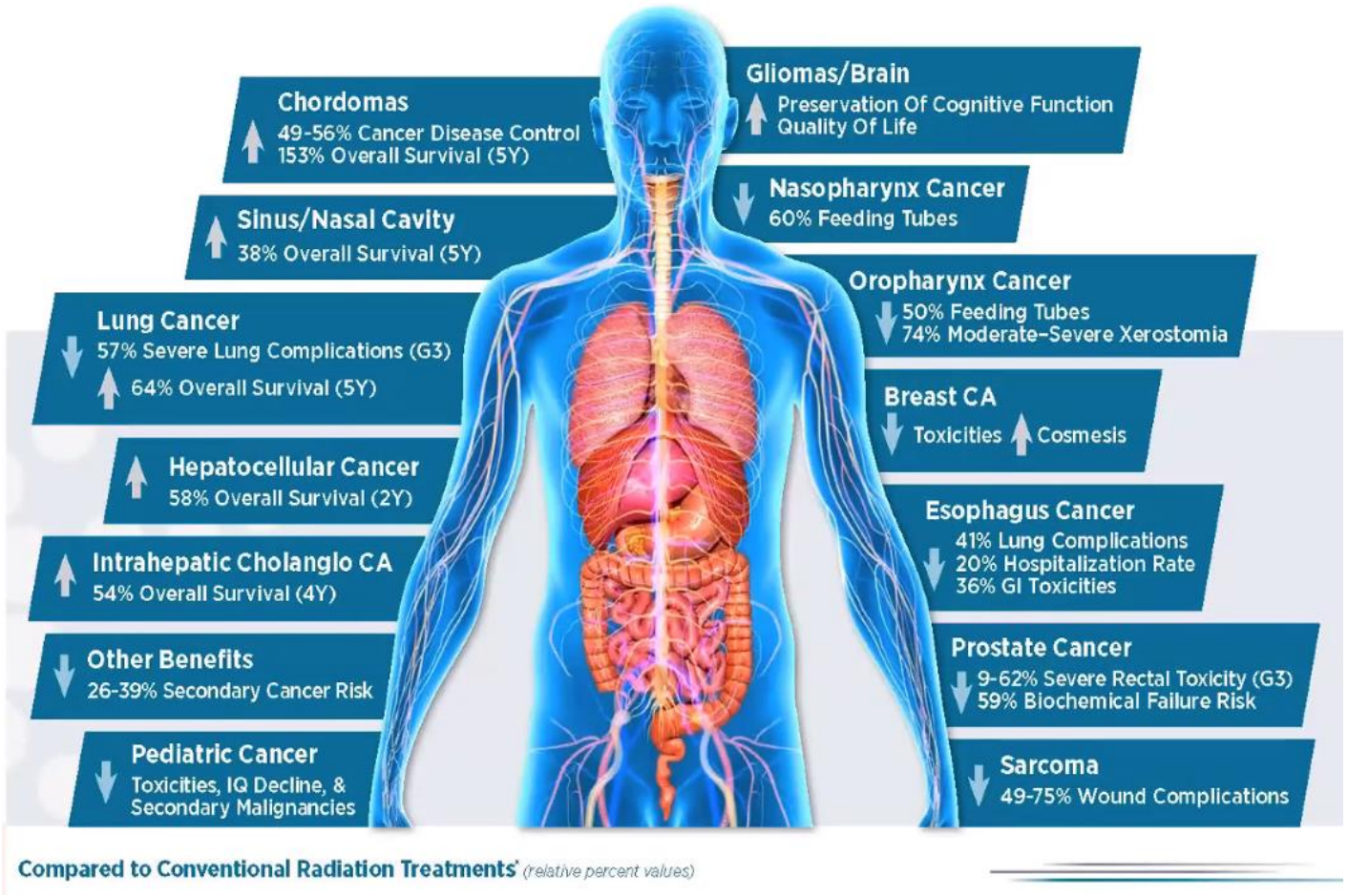
Mevion will continue to advance proton therapy

- Advanced imaging & motion management integration
- Adaptive planning support
- Faster and sharper beam delivery

Fast Volumetric Delivery

Proton Therapy Clinical Experience

- Reduction in both short and mid-term toxicities
- Benefits are continuing to be explored with growth of clinical evidence



Source: Dr. Simone – Medical Director, NY Proton Center – October 2020

Breakdown of Clinical Indications with Mevion

	Site A 18% ped.	Site B 8% ped.	Site C 8% ped.	Site D 16% ped.	Site E	Site F	Site G 12% ped
CNS	6%	11%	30%	4%	6%	-%	18%
Brain	25%	22%	-%	21%	-%	26%	14%
H&N	10%	8%	16%	12%	13%	3%	15%
Breast	5%	16%	2%	13%	11%	25%	27%
Lung	16%	11%	10%	11%	8%	30%	1%
GI	6%	12%	3%	1%	10%	12%	5%
GU/ Prostate	11%	12%	21%	25%	47%	0%	16%
Other	21%	8%	18%	13%	5%	4%	4%

Source: Survey of clinical sites

MEVION medical systems

Kansas City Proton Therapy Institute

- Equipment:
  - 1 Proton System
  - 2+ Linacs
- Staffing:
  - 3-Radiation Oncologists
  - 2-Physicists,
  - 10+ Therapists
- Proton Patients:
  - ~ 35-45 fractions per day

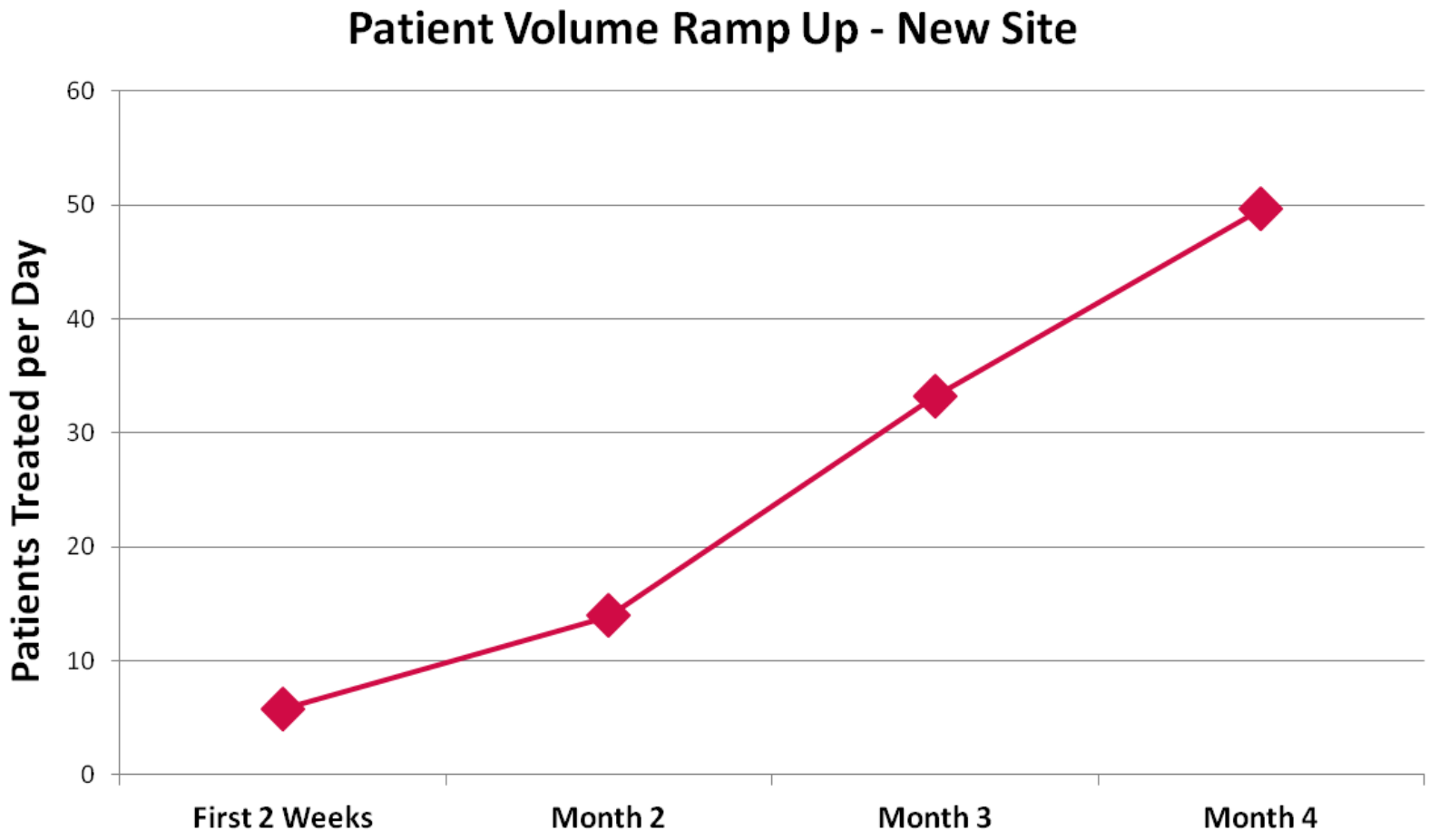
MEVION
medical systems

Ackerman Cancer Center

- Equipment:
  - 1 Proton System
  - 2+ Linacs
- Staffing:
  - 5-Radiation Oncologists
  - 3-Physicists,
  - 10+-Therapists
- Proton Patients:
  - 45-55 fractions per day

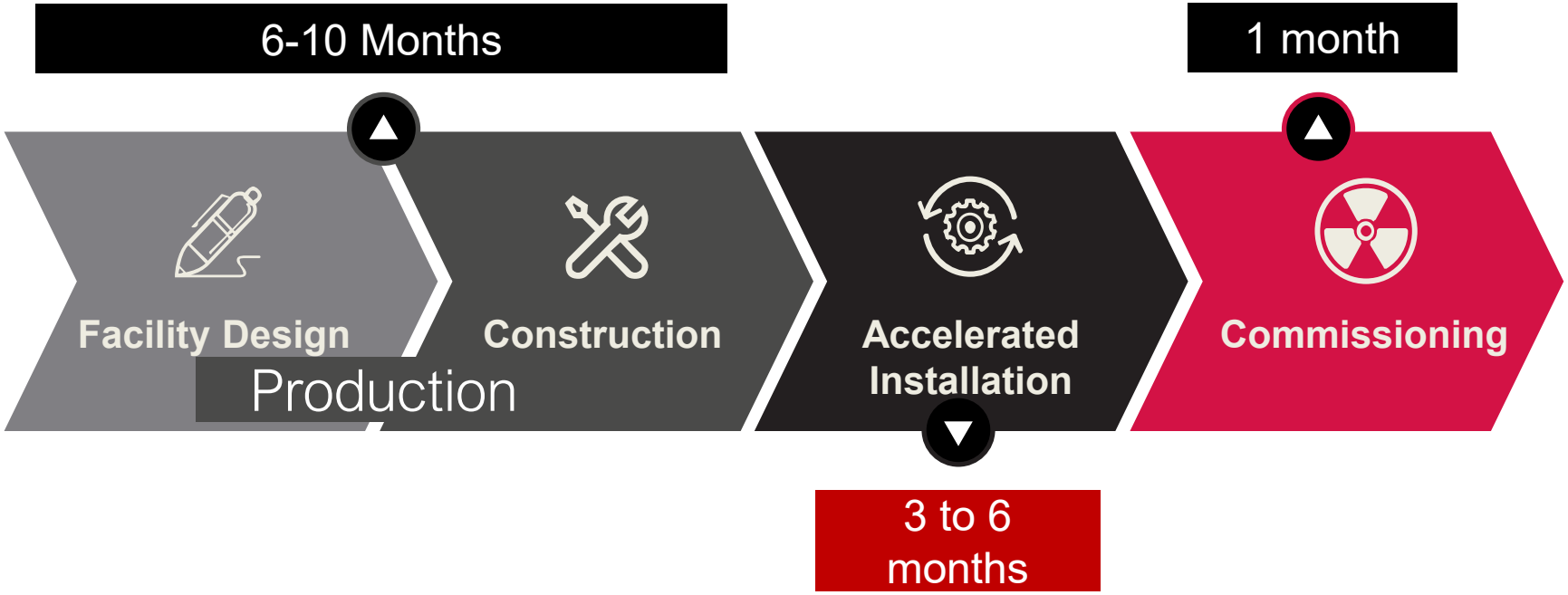
Patient Volume

- Simplified operation – system entirely driven by therapists
- Similar to operating a LINAC
- Improved familiarity improves accessibility



Speed of Execution – MEVION S250-FIT

Fast Construction & Installation

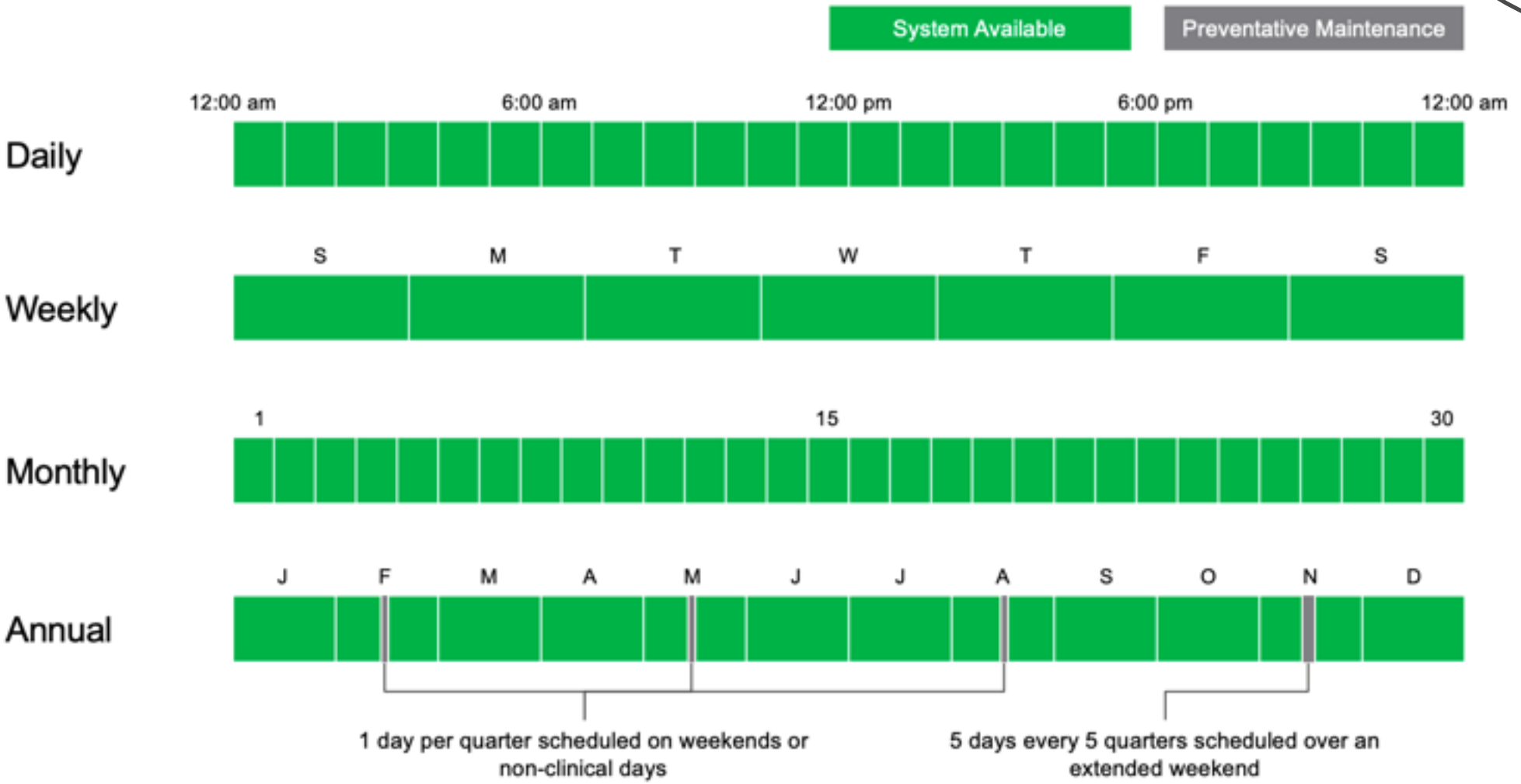


12-18 months from contract to clinical

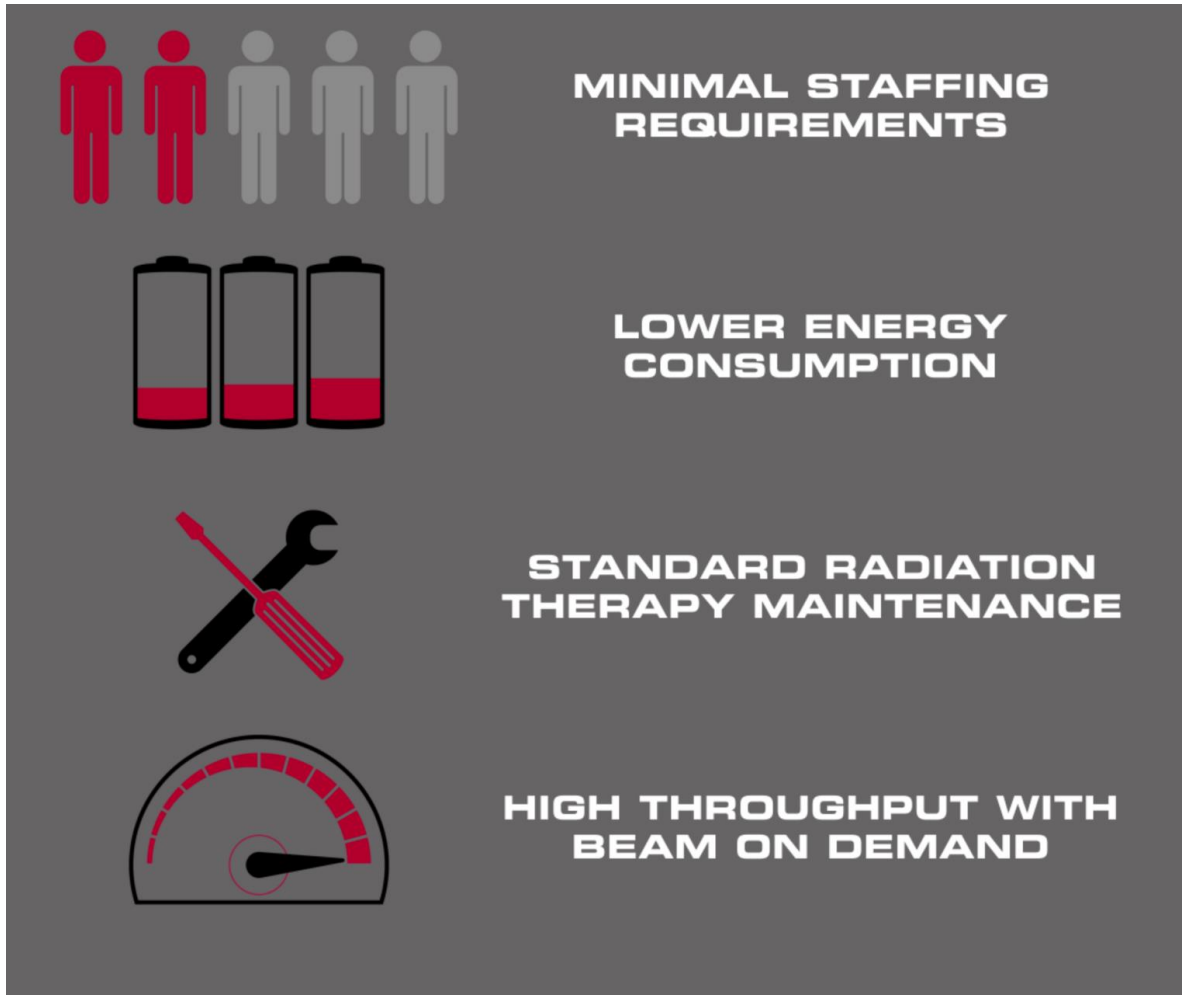
Average Total Project Completion Timeline is between 14-20 months comparing to 60-84 months standart proton timelines

24 Hours, 7 Days a Week, 360 days a Year
Clinical Accessibility at 95% uptime

Tomotherapy like Usage



Operational Requirements



Standard RT Staffing
(2 therapists, 1 physicist, 1 dosimetrist)

Nearly Cost of 2 MRI

Quarterly Only
2 days per quarter
5 days ever 15 months

4 to 6 Patients per Hour

Rakamlarla Proton

- Aralık 2024: Dünyada aktif olarak çalışan yaklaşık 132 Proton merkezi vardır.
- 47 Proton teknolojinin gelişimine bağlı olarak son 5 yılda açılmıştır.
- 1. ve 2.nesil proton merkezlerindeki zorluklar nedeniyle, yaygınlaşma limitli olmuştur.
- Dünya'da Proton hizmeti en yoğun ABD'de olmak üzere 20 farklı ülkede verilmektedir. Dünya'daki Proton merkezlerinin yaklaşık %45'i ise ABD'de bulunmakadır.
- Ülkemizde hiç Proton merkezi yoktur, dolayısı ile bu hastalar yurtdışında başka merkezlerde tedavi olmaktadır.
- Türkiye'ye en yakın merkezler: Prag/Çekya, St.Petersburg,Moskova/Rusya, Astana/Kazakistan
- Suudi Arabistan Riyad şehri (henüz operasyonel değil, 2.nesil proton)
- Mısır (henüz operasyonel değil, 2.nesil proton)

Rakamlarla Proton

- Medicaid/Medicare (ABD SGK) 55,000-75,000 USD Ödeme
- Özel, Nakit ve Yabancı Hasta Ödemeleri 150,000+ USD
- Avrupa'daki fiyatlar 45,000-100,000 Euro Arası
- TR SGK Yıllık 75-135 Adet Hastayı, ortalama 100,000USD fiyatla yurt dışına Proton tedavisine gönderiyor
- 400 Adet Hasta yıllık, ortalama 100,000USD fiyatla yurt dışına Proton tedavisine kendi imkanlarıyla gidiyor
- Yurtdışına gönderilen hastalar %95, 1-10 yaş çocuklar. Tedavi süresinde aileleriyle birlikte ortalama 50,000USD konaklama/seyahat/yemek masrafları olmaktadır.

Proton ile İlgili Sorular

1)Cihazın ve inşaat işlerinin yatırım maliyeti?
S250Fit Yeni Oda; 450,000USD
S250Fit Oda Renovasyonu; 250,000USD
S250i Yeni Oda; 4M USD

İhtiyaç olan kapalı alan inşaat m2'si;
S250i: 550m2
S250Fit: 60-100m2

2) Sözleşme imza tarihi ile tedaviye başlama süresi ne kadar sürer(kurulum planı, tedaviye başlama süreci, personel eğitimleri…)?
S250Fit: İnşaat dahil sözleşmeden hasta tedavisine ortalama 18 ay sürmektedir. Bazı merkezlerde bu süre 12-14 aya kadar da düşmektedir.
S250i: İnşaat dahil sözleşmeden hasta tedavisine ortalama 30 ay sürmektedir. Bazı merkezlerde bu süre 24 aya kadar da düşmektedir.

1. ve 2. Jenerasyon Proton Sistemlerinde (diğer piyasada olan sistemler) süreler inşaat dahil minimum 48ay, maksimum ise 96ay (8 yıl), Ortalama ise yaklaşık 6.5 yıldır.

Proton ile İlgili Sorular

3) Operasyonel maliyetler?
Personel; Normal bir linak veya Tomoterapi kullanımı ile aynı
Sarf; Radyoterapi ile aynı
Enerji; 2 MR eş değeri
(konvansiyonel ışın hattı olmaması nedeniyle, mıknatıs sayısı enerjiyi arttıran faktördür)
Günde ort. 16 saat kullanım, 52 hafta, 5 gün kullanım ile yaklaşık olarak yıllık kullanım: ≈250,000 kWh
Eğitim; Cihaz başında ve ABD'de klinik ve teknik eğitim; Radyasyon Onkoloğu, Medikal Fizik Uzmanı ve Tekniker

4) Yıllık Hasta Kapasiteniz?
S250i; Yıllık 700 Hasta (saatte 3-4 hasta)
S250Fit; Yıllık 1000 Hasta (saatte 5-6 hasta)
Florida'da bulunan Ackerman Merkezi S250i ile dünyada ayda 55-65 yeni hasta tedavi ederek, dünyada en tek oda da en çok tedavi yapan yegane merkezdir.

5) Yatırımın Geri Dönüş (ROI) Süresi Nedir?
36-60 ay arasında değişmektedir. Hasta başı 30,000 USD'den ortalama yıllık 400 hasta Türkiye'de 10 civarı proton merkezi rahatça bulabilecektir.

Neden Mevion

- Yüksek Teknoloji ve Kli
- Hasta Tedavi Hız
- Gelişmiş Tekn
- Tedavi Spek
  - Flash Terapi
  - 0-6cm Tümörl
- Linak Boyutu
- Yüksek Uptim
- İşletme Maliyetle
  - Teknik Servis
  - Elektrik
  - Personel

kfraksiyonasyon

Türkiye'de,
2026 Yılında Mevion
S250Fit Sistemi ile İlk
Hasta Hedefi

ğlık, *Klinik ve *Finansal
olarak *Sürdürülebilir
Yegane Sistem

Teşekkürler…

MEDITEL AİLESİ...