

# IMAGE GUIDED PROTON THERAPY AND PATIENT POSITIONING SOLUTIONS



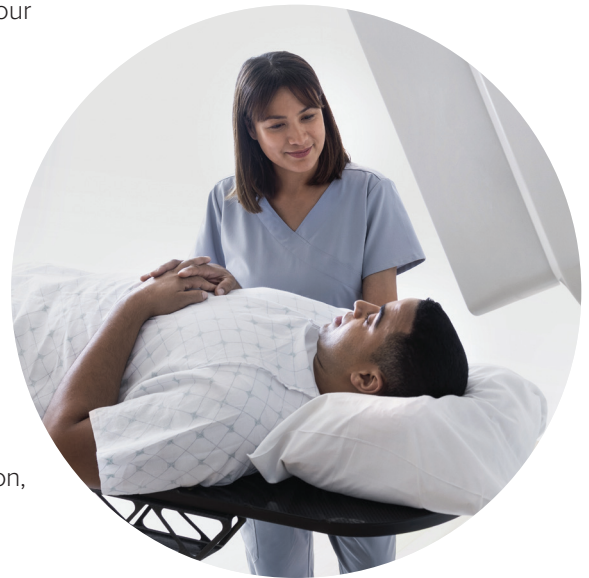
Mevion's unique open architecture approach to Image Guided Proton Therapy (IGPT) enables our customers access to the greatest customization, flexibility, and the latest in imaging and positioning technology. We have launched a suite of new IGPT capabilities through development partnerships with technology leaders throughout the radiation oncology field.

## IGPT – CUSTOMIZED, OPTIMIZED FOR YOU

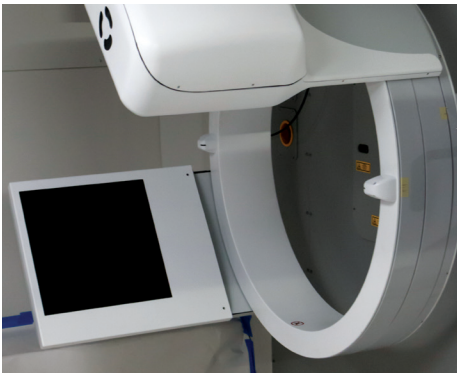
Other companies believe in a “one-size-fits all” IGPT solution. We believe your RT department is unique. We work with every one of our customers to put together the optimal configuration to meet your needs.

### TECHNOLOGY OBSOLESCENCE

- Proton therapy systems are designed for a >20 year life-span, during which clinical needs and IGPT technologies can advance dramatically.
- Other proton manufacturers provide a locked-in solution built into their system. This can freeze your imaging and positioning capabilities while the industry progresses into the future.
- Mevion is designed with a unique open architecture to keep your imaging and positioning solutions current with the future advancements and evolution in IGPT. With the potential for FLASH therapy, hypofractionation, or adaptive therapy disrupting the industry – a system that keeps you agile and upgradable is critical to your proton therapy decision.



## 3D IMAGING OPTIONS



### Integrated CBCT

- Launched in 2019, the ceiling rail mounted ImagingRing CBCT provides integrated daily 3D volumetric imaging.
- Full 360° rotational imaging is available for highest image quality, or partial scans are possible for faster imaging.
- Ultra-large 76cm field of view is the largest FOV of any integrated proton system to enable fully assess positioning nearby anatomy.



### Siemens SOMATOM® Definition Edge

- The Siemens SOMATOM Definition Edge system provides diagnostic image quality to support adaptive re-planning.
- The system is capable of generating 128 slices per single rotation, minimizing patient movement for adaptive planning.
- The system uses a dual-energy scan, TwinBeam Dual Energy, enabling simultaneous acquisition of high and low kV datasets. More accurate proton planning can be achieved.



### Stryker Spine Airo® TruCT

- Airo mobile CT has been integrated and used clinically at 2 Mevion customer sites for 3D imaging guidance.
- With high-resolution true CT quality images, the system has been used by centers for patient positioning and dose verification.
- The extra-large 107cm diameter bore size and compact footprint provides better accessibility for acquiring images and easy mobility in the treatment room.



# SURFACE TRACKING & MOTION MANAGEMENT

## C-RAD Catalyst PT™

- Seamlessly integrated into the MEVION S250i Proton Therapy System, the Catalyst PT offers a complete solution for high precision patient positioning, intra-fraction motion management, and respiratory gating, ensuring the best possible treatment outcome for proton therapy delivery.
- New to this year, the Catalyst PT can send 6DOF couch shifts to the couch for maximum setup efficiency and accuracy.
- When selected on MEVION S250i, the Catalyst PT can automatically retrieve patient treatment data. No additional patient, plan or field selection required on the system.
- Catalyst PT is compatible with the ImagingRing CBCT and provides a unique 4th camera solution dedicated to CBCT patient position and respiration monitoring.
- During treatment, Catalyst PT monitors the patient position and can pause the beam delivery if the patient moves out of tolerance. The system can also be used for respiratory-gated treatments where the beam will only be delivered at the correct breathing amplitude.



## DYN'R SDX®

- The DYN'R SDX system is used for motion management during imaging and treatment of thoracic-abdominal cancers. It is a spirometry-based system that can be used for both voluntary breath hold and free breathing.
- During treatment, the patient voluntarily performs breath holds to minimize the tumor motion and treatment margins. Beam delivery will only happen when the target inspiration zone is reached.
- Fully compatible with Mevion's in-room CT systems, the SDX system also helps monitor tumor motion during imaging without using any markers, allowing more precise CT images for treatment planning.



## Vision RT AlignRT® Advance

- New to Mevion this year, the Vision RT AlignRT Advance system is seamlessly integrated into the MEVION S250i Proton Therapy System. It offers a complete solution for high precision patient positioning, intra-fraction motion management, and respiratory gating, ensuring the best possible treatment outcome for proton therapy delivery.
- The AlignRT Advance tracks a patient's position before and during radiation therapy, to deliver an efficient workflow for accurate treatment set up and delivery.
- During treatment, the AlignRT Advance monitors the patient position and can pause the beam delivery if the patient moves out of tolerance. It can also be used for respiratory-gated treatments where the beam will only be delivered at the correct breathing amplitude.
- The AlignRT Advance is also compatible with the ImagingRing CBCT and provides a unique 4th camera solution dedicated to CBCT patient position and respiration monitoring.



# PRECISE PATIENT POSITIONING & IMMOBILIZATION

Mevion has been working to expand the options for patient immobilization for our customers. Since Mevion systems are embedded into existing radiation departments, it is our goal to work with hospitals to match their existing immobilization approaches. The 3 new couches are available on the Mevion system.



Qfix® kVue™ One Proton

- New, thinner couch top from Qfix enables smaller airgap from posterior beams.
- Uniform homogeneous design simplifies treatment planning compared to rail version.
- Interchangeable inserts for full range of proton therapy treatments.



CIVCO Universal Couchtop™

- No rails or junctions in the treatment area to help facilitate better dose delivery and target coverage
- Large treatment area of 64.9" (164.8 cm)
- Utilizes Prodigy™ 2 indexing at 7cm increments



Orfit Aerial®

- Orfit has developed a brand new proton couch top with a unique approach of fully integrated inserts.
- A gradually tapered support enables a minimal airgap at the distal end of the couch.
- The narrow head and neck extension allows the nozzle to come closer to the patient and minimizes the air gap.

Mevion Medical Systems was founded in 2004 with a simple goal: to provide superior proton therapy to as many cancer patients as possible.



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