



CASE STUDY

Hydrotherapy Solutions For Spinal Cord Injury Rehabilitation

THE CHALLENGE: Managing Critical T4 Spinal Cord Injury Risk Factors During Rehabilitation

Spinal cord injury rehabilitation at the T4 level presents unique challenges. According to APTA guidelines, patients with injuries above T6 require careful monitoring due to autonomic dysreflexia (AD) risk. Additional complications include catheter management and the need for comprehensive vital sign monitoring during any therapeutic intervention.

THE SOLUTION: Therapeutic Water Properties: Creating Safe Recovery Environments for SCI Patients

The documented effects of water immersion can benefit SCI patients when properly monitored.

Research shows that hydrostatic pressure exerts 22.4 mm Hg pressure for every foot of water depth, providing natural compression that can help stabilize cardiovascular responses. This pressure, combined with proper temperature control, creates an environment where therapy can proceed safely.

For patients with catheters, APTA guidelines outline specific protocols for waterproof dressing application and monitoring. When these protocols are followed, aquatic therapy can proceed safely while maintaining wound and catheter site integrity.

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THE RESULT: Controlled Environment Enables Progress

With proper medical clearance and monitoring, SCI patients can participate in aquatic therapy safely. The key factors for success include:

- Regular blood pressure monitoring
- Proper catheter management
- Clear emergency protocols
- Recognition of early AD symptoms

Research demonstrates that aquatic therapy can provide cardiovascular benefits while allowing supported movement patterns that may be impossible on land.

Hudson Aquatic Systems Solutions

For rehabilitation facilities working with complex neurological conditions like spinal cord injury, Hudson Aquatic Systems offers specialized equipment designed to support safe therapy delivery. Their premier system, the AquaFit Pro, provides an expansive exercise chamber suitable for the complex needs of SCI patients, while the AquaFit Plus delivers comprehensive hydrotherapy solutions adaptable for various clinical populations.

Facilities with existing pools can explore Hudson's AquaGaiter series, which integrates into current infrastructure to enhance therapy capabilities. Each system supports evidence-based protocols while providing controlled environments essential for high-risk patients.



To determine which Hudson system best matches your facility's needs for treating complex neurological conditions, their team can provide detailed specifications and capabilities for each model.

[Note: For specific product features and safety protocols, please contact Hudson Aquatic Systems directly.]



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