PRECOURSE **Wednesday, December 2, 2026**

Mind the Gap: Practical Solutions from No Tech to High Tech in Pediatric SCI

	Topic/Title	Presenter/Moderator
7:00 AM - 8:00 AM	**Breakfast – Citron West**	
8:00 AM	**Welcome/Opening Remarks**	Kathryn Eaton, MSOT, OTR/L
8:05 AM	Considerations for the Use of Technology in Pediatric SCI	Glendaliz Bosques, MD Click Here for Abstract
8:25 AM	Q & A	
Click Here for Abstract	**SESSION 1: Positioning, Postural Control & Mobility** **Gap #1: Access**	**Moderator:** Kathryn Eaton, MSOT, OTR/L
8:35 AM	The Life Experiences of Children With Spinal Cord Injury or Disease and Caregivers Utilizing Seating and Positioning Wheelchair Systems	Selina Morgan, PT, DPT, PhD, NCS
9:00 AM	From Hands-On Facilitation to Progressive, Functional Support: Translating SATCo Principles Into Device Development	Laura Leon Machado, PT, DPT, MBA, ATP
9:20 AM	Adaptive Robotic Head Support: Using a Robot to Compensate for the Weight of a Child's Head	Bradford Kerst, MS, PhD Candidate
9:40 AM	Q & A	
9:55 AM	**Stretch Break**	
Click Here for Abstract	**SESSION 2: Communication** **Gap #2: Communication and Environmental Access**	**Moderator:** Kristy Hayes, MOT, OTR/L
10:10 AM	Talking Tech	Erin O'Donnell, SLP
10:35 AM	Bethany Children's Smart Home Experience: Technology, Accessibility and Independence"	Jennifer Hathorn MS, CCC-SLP
10:55 AM	Q & A	
11:10 AM	**Stretch Break**	



HOWARD H. STEEL conference

Time	Topic/Title	Presenter/Moderator
Click Here for Abstract	**SESSION 3: Function and Independence** **Gap #3: Upper & Lower Extremity**	**Moderator:** Rebecca Martin, OTR/L, OTD
11:25 AM	Upper Extremity Robotics in Rehabilitation	Shinobu Ishigami, PT, MS
11:45 AM	EEG-EMG Changes and Functional Outcomes After Use of EXPLORER MB, a Pediatric Overground Exoskeleton	León Morales Quezada, MD, MSc, PhD, MPH
12:05 PM	Q & A	
12:15 PM	**LUNCH ON OWN**	
Click Here for Abstract	**SESSION 4: Participation Beyond the Clinic** **Gap #4: Participation**	**Moderator:** Laura Krisa, PhD, FASIA
1:45 PM	Adaptive Car Project or Power-Mobility Training using Modified Toy Bumper Cars in an Early Intervention Setting	Stephanie Muth, PT, PhD
2:05 PM	More Than Just a Game: Leveraging Digital Health Tools in Real Life Therapy Sessions	Amy Pratt, PT
2:25 PM	Adaptive Gaming Solutions for SCI/D	Mary Kossa, MOT, OTR
2:45 PM	Building Independence: The Missing Link Between Hospital and Home	Samantha Twining, Project Coordinator at Wheelpad, Delaware County Housing Commisioner, Board Member, United Spinal Association Greater Philadelphia
3:05 PM	Project STEMpathy: Engineering Solutions for Pediatric Independence	Claudia McCormick, BS; Kevin Foerster, BS
3:20 PM	Q & A	
3:30 PM	Considerations to Move Forward in Kids, Introduction to the Steel 2026 conference	Rebecca Martin, OTR/L, OTD
3:40 PM	**Conclusion**	



REGISTRATION & PARTNER/EXHIBITOR MEET & GREET!

Wednesday, December 2, 2026

3:30 PM - 5:00 PM



Howard H. Steel CONFERENCE on Pediatric Spinal Cord Injury/Dysfunction

Time	Topic/Title	Presenter/Moderator	Location
Thursday, December 3, 2026 | CONFERENCE			
7:00 AM - 8:00 AM	**Registration & Breakfast with Partners & Exhibitors**		
8:00 AM - 8:45 AM	**Welcome & Opening Remarks** Cristina Sadowsky, MD Chair, Steel Assembly		
8:45 AM - 9:45 AM Click Here for Abstract	**The Stephen M. Haley Memorial Lecture: The Upper Limb in Pediatric SCI: Facts and Assumptions that Inform Practice**	MJ Mulcahey, PhD, OTR/L, CPPC, CLCP, FASIA Thomas Jefferson University	
9:45 AM - 10:45 AM	**Partner & Exhibitor Recognition**		
10:45 AM - 11:15 AM Click Here for Abstract	POSTER SESSION 1		
10:45 AM - 11:15 AM	**Break with Partners & Exhibitors**		
11:15 AM - 12:15 PM Click Here for Abstract	**General Session 1: Musculoskeletal Innovation and Recovery in Pediatric Spinal Cord Care**	**Moderator** *Glendaliz Bosques, MD*	
	Peripheral Quantitative Computed Tomography and Blood Biomarkers in Children with Spinal Cord Disorders	Jamie Rebecca Ellis, PhD	
	Integrating Mechanistic Evidence and Clinical Translation: Transcutaneous Spinal Cord Stimulation for Upper Extremity Recovery in Pediatric Spinal Cord Injury	Goutam Singh, PT, PhD	
	Bone and Muscle Health in Children with Nontraumatic Spinal Cord Related Paralysis	Cristina Sadowsky, MD	
	Building New Pathways: A Pediatric Framework for Nerve Transfer Rehabilitation In Cervical SCI	Alaena McCool, MS, OTR/L, CPAM	
	Exoskeleton-Assisted Ambulation in Pediatric Spinal Cord Injury: Early Inpatient Rehabilitation Outcomes	Dianna H. Nguyen, DO, PhD	
	Q&A		
12:15 PM - 1:30 PM	**MIDDAY BREAK - LUNCH ON OWN**		

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Time	Topic/Title	Presenter/Moderator	Location
1:30 PM - 2:30 PM Click Here for Abstract	**COURSE 1: Bridging The Gap: Foundations for Emerging Clinical Translation of Transcutaneous Spinal Cord Stimulation Across Motor Domains and Physiological Functions in Pediatric Spinal Cord Injury**	Goutam Singh, PT, PhD Kathryn C. Lucas, PhD, PT Andrea L. Behrman, PhD, PT	
2:30 PM - 3:30 PM	**State of the Science: Transcutaneous Spinal Cord Stimulation for Pediatric Spinal Cord Injury, Current Evidence, Knowledge Gaps, and Future Directions**	Rebecca Martin, OTR/L, OTD Goutam Singh, PT, PhD Kristen Gelenitis, PhD	
3:30 PM - 3:50 PM	**Break with Partners & Exhibitors**		
	CONCURRENT SESSIONS		
3:50 PM - 5:20 PM Click Here for Abstract	**COURSE 2: Pain That Grows Up: Rethinking Pediatric SCI and Multidisciplinary Pain Management**	Kathy Zebracki, PhD Alex Rouse, MBBS Kirsten Hart, MSc	
3:50 PM - 5:20 PM Click Here for Abstract	**COURSE 3: Workshop - The Role of High-Resolution Ultrasound in Pediatric Spinal Cord Injury Rehabilitation**	Bethany Lipa, MD Sue Mukherjee, MD Tami Zamudio, MS, APRN-CNP James B. Meiling, DO Ami Hampole, DO Philippines Cabahug, MD	

Friday, December 4, 2026 | CONFERENCE

7:00 AM - 8:00 AM	**Break with Partners & Exhibitors**		
8:00 AM - 9:00 AM Click Here for Abstract	**COURSE 4: AFM at 10 (One Center's Decade-Long Clinical Experience with Children Affected by Acute Flaccid Myelitis)**	Cristina Sadowsky, MD Kaitlin Hagen, OT Elizabeth Farrell, PT Shannon Lorden, CRC	
9:00 AM - 9:10 AM	**Stretch Break**		
9:10 AM - 10:10 AM Click Here for Abstract	**COURSE 5: A Roadmap for Implementation of Therapeutic Acute Intermittent Hypoxia in Pediatric Rehabilitation**	Rebecca Martin, OTR/L, OTD Gordon S. Mitchell, PhD Alexander M. Rouse, MD	
10:10 AM - 11:10 AM Click Here for Abstract	**COURSE 6: "What's the Impact?" Measuring the Effectiveness of Social Media**	Anne Hambleton, BA Sara Klaas, MSW, CCM, C-ASWCM Stephanie Lollino, BA	
11:10 AM - 11:40 AM Click Here for Abstract	POSTER SESSION 2		
11:10 AM - 11:40 AM	**Break with Partners & Exhibitors**		

Time	Topic/Title	Presenter/Moderator	Location
11:40 AM - 12:40 PM Click Here for Abstract	**General Session 2: Epidemiology** **Advancing Knowledge Through Pediatric SCI Research and Measurement**	**Moderator:** *Shubhra Mukherjee, MD*	
	Adapting the ISNCSCI for Pediatric Use: A Case Series for Children <6 Years of Age	Kristen Wagner, PT, DPT, CBIS	
	Development of a Dataset for Pediatric Spinal Cord Injury and first results of Switzerland	Inge Eriks-Hoogland	
	Epidemiology of Infant Spinal Cord Injury Treated in Emergency Departments in the United States and Comparison with the General Infant Population: 2006 to 2022	Beatrice Ugiliweneza, PhD, MSPH, MSCS	
	Development of an MRI Age-Based Pediatric Spinal Cord Template	Laura Krisa, PhD, FASIA	
	Q & A		
12:40 PM - 2:00 PM	**MIDDAY BREAK - LUNCH ON OWN**		
2:00 PM - 3:00 PM Click Here for Abstract	**COURSE 7: Bridging the Transition Gap: A Year-Round Transition-to-Adulthood Model for Youth with SCI**	Keara McNair, PhD, OTR/L, BCPR Kassandra Boyd, OTD, OTR/L Emily Tetley, OTR/L	
3:00 PM - 4:00 PM Click Here for Abstract	**COURSE 8: Development of an Interdisciplinary Work Group to Address Disparities in Care for Patients with Spinal Cord Injury on a Pediatric Inpatient Rehabilitation Unit**	Alyssa Thiede, PT, DPT, NCS Dawn Deike, DO Rachel McClelland, PT,DPT, NCS Kaitlin Dero, MS CCC-SLP	
4:00 PM - 4:20 PM	**Break with Partners & Exhibitors**		
4:20 PM - 5:20 PM Click Here for Abstract	**General Session 3: MIXED** **Beyond Rehabilitation: Supporting Lifelong Health, Transition, and Participation**	**Moderator:** *Kristin Johnston, OTD*	
	Exploring Patient- Identified Gaps from Inpatient Rehabilitation to the Community in the Pediatric Spinal Cord Injury Population	Emily Smith	
	Interstate Care Coordination in Complex Pediatric Spinal Cord Injury: A Case Report	Jennifer Roth, MS, CPNP	
	Aquatic Therapy for the Pediatric Patient Requiring Mechanical Ventilation	Courtney Porter, PT, DPT	
	The Importance of Self-Selected Goals: Evaluating a Pilot Intervention to Improve Health Behaviors in Young Adults with Pediatric Onset Spinal Cord Injury	Alicia January, PhD	
	Early Diaphragm Pacing Prevents Long-Term Tracheostomy in Pediatric Cervical Spinal Cord Injury	Raymond Onders, MD, FACS, FASIA	
	Q & A		

Time	Topic/Title	Presenter/Moderator	Location
4:50 PM - 5:00 PM	**Stretch Break**		
5:00 PM - 6:00 PM Click Here for Abstract	**COURSE 9: Reimagining Pediatric FES: Bridging Evidence Gaps in Massed Practice and Task-Specific Training**	Erin Sweeney, MS, OTR/L, CBIS, ATP Laurie Magerfleisch, PT, DPT Matt Sanchez, PT	



Howard H. Steel CONFERENCE on Pediatric Spinal Cord Injury/Dysfunction

Saturday, December 5, 2026 | CONFERENCE

Time	Topic/Title	Presenter/Moderator	Location
7:00 AM - 8:00 AM	**Breakfast**		
8:00 AM - 9:00 AM Click Here for Abstract	**The Newton C. McCollough Lecture:** Mind the Gap, Share the Model: Standardizing Data Collection in Pediatric Spinal Cord Injurypaedic/Neurosurgical Management of Children and Adolescents with SCI	**James A. G. Crispo, MSc, PhD** NOSM University	
9:00 AM - 10:10 AM Click Here for Abstract	**General Session 4: Shoulder Preserving Shoulder Health Across the Lifespan**	**Moderator** *Kelly Dougherty, PT, DPT*	
	Impact of Pediatric-Versus Adult-Onset Spinal Cord Injury and Dysfunction on Shoulder Pain and Pathology in Manual Wheelchair Users	Alyssa J. Schnorenberg, PhD	
	Comparing Wheelchair Propulsion Biomechanics of Children with Spinal Cord Injury and Spina Bifida	Mona H. Said, BS	
	Propulsion Phenotypes and Age at Onset of SCI/D as Predictors of Shoulder Pain in Manual Wheelchair Users Across the Lifespan	Brooke A. Slavens, PhD	
	Relationships Between Manual Wheelchair Propulsion Pattern and Shoulder Tissue Elasticity in Users with Pediatric SCI/D	Caleb M.A. Cordes, PhD	
	Sex Differences in Supraspinatus Tendon Tissue Properties and Shoulder Pain Among Young Adults with Pediatric-Onset SCI/D who Use Manual Wheelchairs	Savanna Rudy	
	Impact of Age of Injury Onset on Peak Normalized Rotator Cuff Muscle Forces and Glenohumeral Joint Contact Forces During Manual Wheelchair Propulsion	Carrie L. Peterson, PhD	
	Q & A		
10:10 AM - 10:30 AM	**Refreshment Break**		
10:30 AM - 11:20 AM Click Here for Abstract	**COURSE 10: The Journal of Pediatric Rehabilitation Medicine (JPRM) as a Catalyst for Clinical Excellence in Pediatric Spinal Cord Care**	Didem Inanoglu, MD, FAAPMR Dawn Deike, DO Tommy Ngo, MD Kayla Williams, MD	
11:30 AM - 12:00 PM	AWARDS & FINAL ANNOUNCEMENTS		
12:00 PM	**Meeting Adjourned!**		

POSTERS

Award-Eligible Posters

1 Transcutaneous Spinal Stimulation to Map and Modulate Residual Motor Pathways in Pediatric Spina Bifida
Anders Asp, PhD

2 Interventions to Address Impairments, Activity Limitations, and Participation Restrictions in Pediatric Spinal Cord Injury: A Systematic Review
Gabrielle Brazg, PT, DPT, NCS

3 Improving Lives, One Flush at a Time: The Impact of Transanal Irrigation on Continence and Quality of Life in Children with Neurogenic Bowel Dysfunction due to Spinal Cord Injury
Phoenix Au-Yeung, BSc

4 Musculoskeletal Changes and Treatments in Paediatric Spinal Cord Disorders: A Scoping Review
Jamie Ellis, PhD

5 Developing an Australian Paediatric Spinal Cord Registry
Jamie Ellis, PhD

Posters

6 Investigation of Body Composition Indices and Functional Outcome Questionnaires in Children with Spinal Cord Disorders
Jamie Ellis, PhD

7 Benchmarking Standards of Care and Education for Pediatric Patients with Spinal Cord Injury and Dysfunction
Dawn Deike, DO

8 Case Report: Therapeutic Interventions During Rapid Functional Improvement Following Spinal Cord Decompression in a 13-year-old Female with Chronic Spinal Cord Dysfunction
Kimberly A. Grottini, PT, DPT, PCS

9 Reimagining Bladder Management in Pediatric Spinal Cord Injury: Activity – Based Therapies as a Pathway to Independence
Erin Sweeney, MS, OTR/L, CBIS, ATP

10 Exoskeleton-Assisted Ambulation in Pediatric Spinal Cord Injury: Early Inpatient Rehabilitation Outcomes
Dianna H. Nguyen, DO, PhD

11 Use of Microprocessor KAFOs to Increase Independence following Pediatric Spinal Cord Injury
Natalie Albright, PT, DPT, PCS

12 Translating Transcutaneous Spinal Stimulation to Pediatric SCI Rehabilitation: Clinical Guidelines for Practice
Elizabeth Neighbors, PT, DPT

continued

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13 Acute Intermittent Hypoxia with Activity-Based Therapy in a 12-year-old Female with Tetraplegia
Kristin Johnston, OTR/L; Maggie Matassa, PT

14 High-Intensity Gait Training in an Adolescent Patient Post SCI
Pamela Tucker, PT, DPT, PCS

15 READY Model of Pediatric Rehabilitation Education in Spinal Cord Injury
Tami Zamudio, APRN, CPNP

16 Trends in Pediatric Firearm-Related Traumatic Spinal Cord Injury: A Retrospective Cohort Study
Rebecca Potts, MD

17 Transcutaneous Spinal Stimulation is Safe and Feasible in Complex Spinal Cord Injury
Lia Brunn, OTR/L, OTD

18 Diaphragmatic Pacing System in Pediatric Patients with Cervical Spinal Cord Injury: Clinical and Ventilatory Outcomes
Claudia Teixidó-Font, MD

19 The Life Experiences of Children With Spinal Cord Injury or Disease and Caregivers Utilizing Seating and Positioning Wheelchair Systems: A Dissertation
Selina Morgan, PT, DPT, PhD, NCS

20 Capitalizing on Locomotor Networks and Rescuing Motor Neurons After Surfer's Myelopathy and Paralysis: A Multimodal Activity-Based Restorative Therapy (AB-RT)
Laura Leon Machado, PT, DPT, MBA, ATP

21 From Hands-On Facilitation to Progressive, Functional Support: Translating SATCo Principles Into Device Development
Laura Leon Machado, PT, DPT, MBA, ATP

22 Minding the Translational Gap: Transcutaneous Spinal Cord Stimulation Device Proof of Principle to Elicit Locomotor-like Stepping Responses in Non-Injured Adults and Children with Spinal Cord Injury
Molly Brooks, BA

23 That's Good Enough: A Clinical Step Beyond in Two Children with Chronic Acute Flaccid Myelitis
Kelly Dougherty, PT, DPT

24 Back to School After SCI: Rehabilitation Enriched by Horatio's Garden
Dr Jan Gawronski

25 More Than a Comorbidity: Neurodiversity in Children and Young People with Spinal Cord Injury
Dr Jan Gawronski

26 Altering Spinal Cord Excitability Enables Lower Limb Cycling in a Gravity-Neutral Position in Children with Motor-Complete Spinal Cord Injury
Kathryn C. Hickey Lucas, PT, DPT, PhD

27 From Lower Limb Paralysis After Lower Motor Neuron Injury to Swing Phase Independence
Matthew Davis, PT, DPT, ATP

28 Therapy Dosage and Functional Outcomes Among Pediatric Patients with Spinal Cord Injury Participating in Interdisciplinary Day Rehabilitation Programs
Stephanie Judycki, OTD, OTR/L

29 Surgical Procedures After Pediatric Traumatic Spinal Cord Injury in the United States: A National Inpatient Study
James A.G. Crispo MSc, PhD

continued



Late Breaking Posters

30 Pediatric Traumatic Spinal Cord Injury in Ontario, Canada: Incidence and Cohort Characterization
James A.G. Crispo MSc, PhD

31 Medication Use Among Children with Spinal Cord Injury in Ontario, Canada: A Pilot Study
Matthew R. Redmond, HBSc

32 Toward a Pediatric Transcutaneous Spinal Cord Stimulation Protocol: Adapting Adult Neuromodulation Strategies for Children with Spinal Cord Injury
Shubhra Mukherjee, MD

33 The Effect of Transcutaneous Spinal Cord Stimulation (TCScS) On Neuromuscular Activation and Functional Recovery in Children with Spinal Cord Dysfunction
Elena Zumbuleva, PT, DPT

34 Development of a Dynamic Training Device for Head Control in Recovery-Based Rehabilitation in Pediatric Spinal Cord Injury
Kathryn Eaton, MSOT, OTR/L

35 Does Carrier Frequency Modulation Improve Tolerability and Neural Activation During Cervical Transcutaneous Spinal Cord Stimulation?
Joshua Ceisler, B.S.

36 Characterization of Functional Outcomes in Children with Spinal Cord Injuries
Christian Niedzwecki, DO, MS

37 Cannabis-Associated Vascular Events in Young Patients with Spinal Cord Injury: A Three-Patient Case Series Spanning Venous Thrombotic and Arterial Vasospastic Mechanisms
Cassidy MacArthur, MD

38 Standing Revisited: Exploring Neuromodulation to Achieve Active Independent Standing after Motor Complete Spinal Cord Injury
Samantha Price, DPT, PhD

39 Differential Air Pressure Treadmill Training in Young Children with Neurologic Conditions: A Three-Participant Case Series
Nicole Pasdera, PT, DPT, NCS

40 Protocol for Developing and Validating UTI Self-Monitoring Tools for Adolescents (Ages 12–17) with Neurogenic Bladder
Ana Valeria Aguirre Guemez, MD

41 Spinal Cord Infarction Secondary to Suspected Fibrocartilaginous Embolism in a 16-Year-Old Male: A Case Report
Allyson Gorman, MD

STEEL ASSEMBLY
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