



*Academy of  
Neurologic Physical Therapy*

*American Physical Therapy  
Association*

-- March 2019 --

## Call for Social Media Coordinator!

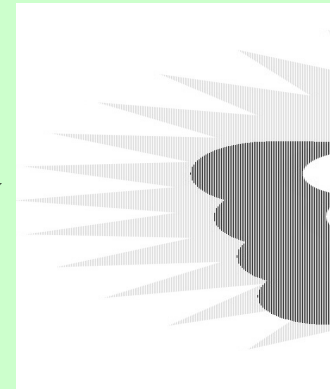
### Calling all DPT and PTA Students!

Are you interested in getting more involved?  
Are you interested in spinal cord injury?

We are opening applications for a new student position -

### Social Media Coordinator

- The position is a **1-year term starting July 1, 2019**.
- You will receive **mentorship** completing the tasks.
- Requirements to apply:
  - Currently enrolled in a physical therapy or physical therapy assistant program
  - Eager to learn through mentorship and to **get involved**
  - **That's it!** No neurologic PT knowledge or experience is necessary!



Interested? [Apply here](#) ! Applications due **May 25, 2019!**

Questions? Contact [Christi Hutchison, PT, MPT, NCS](#).

## CSM 2019 Highlights and Summary



**Thank you!!**

A big thanks to the 16,000+ PTs,  
PTAs, and students who made  
CSM 2019 in Washington, DC  
one of the best ones yet!

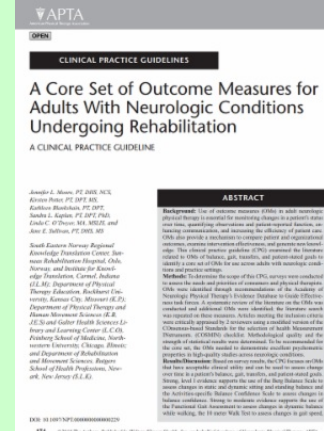
The [Outcome Measures Clinical Practice Guideline \(CPG\)](#)

that was originally published in *Journal of Neurological Rehabilitation* in a presentation by Elizabeth Anderl, et al:

## Implementing a Core Set of Outcome Measures for Adults with Neurologic Conditions.

This CPG was developed to help streamline and standardize the assessments used to assess **balance, walking speed/endurance, and transfers** in patients with neurologic conditions.

Detailed descriptions of the outcome measures, standardized instructions for administering the outcome measures, as well as a "Quick Guide" can all be found [here](#).



Other SCI platforms and presentations included:

- **SCI and Neuroplasticity.** D. Michelle Basso, PT, Ed.D; Deb Larson, PT, PhD, FAPTA, FASAHP; Timothy Faw, PT, DPT, NCS, NRSA Fellow.
- **Why We Love and Hate Our Robots: Implications for Everyday Clinical Practice.** Julius Dewald, PT, PhD; Edelle Field-Fote, PT, PhD, FAPTA; Kristen Hohl, PT, DPT; Arun Jayaraman, PT, PhD; Catherine Lang, PT, PhD.
- **Dealing with the Dark Side of Plasticity.** Stephen Schmidt, PT, MPhysio; Adriaan Louw, PT, PhD.
- **Budget Impact Analysis of Robotic Exoskeleton Use for Locomotor Training Following Spinal Cord Injury in Three Model Health Systems.** Daniel Pinto, PT, PhD.
- **Transcutaneous Spinal Cord Stimulation Generates Reciprocal Lower Extremity Movement in Pediatric Patients with Motor Complete Spinal Cord Injury.** Brooke Meyer, PT, DPT.
- **Skilled Aquatic-Based Therapies for Chronic Spinal Cord Injury with Complex Co-Morbidities and Invasive Appliances.** Albert Recio, MD.
- **The Degree of Sympathetic Interruption Predicts Core Temperature Lability and Cognitive Performance During Heat Exposure in Persons With Higher Spinal Cord Injuries.** John Handrakis, PT, DPT, EdD.
- **Intramuscular Diaphragm Stimulation to Enhance Respiratory Function After Cervical Spinal Cord Injury.** Emily Fox, PT, DPT, PhD.

There were also almost 20 great SCI posters presented! They can be found [here](#).

CSM Handouts will be available to [download](#) through **July 7, 2019**.  
(Password: DC2019)

# SCI SIG Research Review



Please see this month's  
research articles below!

CHECK  
IT OUT!

- Thomaz, S. R., Cipriano, J. G., Formiga, M. F., Fachin-Martins, E., Cipriano, G. F. B., Martins, W. R., & Cahalin, L. P. (Jan 2019). [Effect of electrical stimulation on muscle atrophy and spasticity in patients with spinal cord injury - a systematic review with meta-analysis.](#) Spinal Cord.
  - *Study Design:* This work is a systematic review with meta-analysis. Objective: Evaluate the effect of electrical stimulation (ES) on skeletal muscle volume and spasticity in individuals with spinal cord injury (SCI).
- Onushko, T., Mahtani, G., Brazg, G., Hornby, T. G., & Schmit, B. D. (January 30, 2019). [Exercise-induced alterations in sympathetic-somatomotor coupling in incomplete spinal cord injury.](#) Journal of Neurotrauma.
  - *Abstract Excerpt:* The purpose of this study was to understand how high and low intensity locomotor training (LT) affects sympathetic-somatomotor coupling in people with incomplete spinal cord injury (SCI). Proper coupling between sympathetic and somatomotor systems allows controlled regulation of cardiovascular responses to exercise. In people with SCI, altered connectivity between descending pathways and spinal segments impairs sympathetic and somatomotor coordination, which may have deleterious effects during exercise and limit rehabilitation outcomes. We postulated that high-intensity LT, which repeatedly engages sympathetic-somatomotor systems, would alter sympathetic-somatomotor coupling.
- Lung, C. W., Yang, T. D., Liao, B. Y., Cheung, W. C., Jain, S., & Jan, Y. K. (January 01, 2019). [Dynamic changes in seating pressure gradient in wheelchair users with spinal cord injury.](#) Assistive Technology: the Official Journal of Resna, 2019, 1-10.
  - *Abstract Excerpt:* Pressure ulcer interventions are commonly assessed with measures of seating interface pressure, such as peak pressure gradients (PPGs). Decreases in PPG magnitudes may reduce pressure ulcer risk by decreasing tissue deformation and increasing tissue perfusion of at-risk weight-bearing tissues. Changes in PPG directions, which have previously been overlooked in the seating pressure literature, may provide a transient increase in blood flow to at-risk tissues, even if the PPG magnitude and location remain the same. The purpose of this study was to assess both PPG components in response to combinations of wheelchair tilt and recline angles.
- Onders, R. P., Elmo, M. J., Kaplan, C., Schilz, R., Katirji, B., & Tinkoff, G. (October 01, 2018). [Long-term experience with diaphragm pacing for traumatic spinal cord injury: Early implantation should be considered.](#) Surgery, 164, 4, 705-711.
  - *Background:* Cervical spinal cord injury can result in catastrophic respiratory failure requiring mechanical ventilation with high morbidity, mortality, and cost. Diaphragm pacing was developed to replace/decrease mechanical ventilation. We report the largest long-term results in traumatic cervical spinal cord injury. Methods: In this retrospective review of prospective institutional review board protocols, all patients underwent laparoscopic diaphragm mapping and implantation of electrodes for diaphragm strengthening and ventilator weaning.

If you have suggestions or interest in participating in this SCI Research Review,  
please contact us [here!](#)

# Upcoming Conferences: 2019

## ASIA SCI Summit 2019

### *Annual Scientific Meeting*

April 2-5, 2019 - Waikiki, Hawaii ([Hilton Hawaiian Village](#))

- Online registration is available [here!](#)
- Join other ASIA attendees at the **Aloha Welcome / Pre-Registration Event** on Monday April 1, 4:00 - 6:00 pm at the Palace Lounge, Hilton Hawaiian Village!
- Check out the [ASIA Meeting Website](#) for more information!



## Rehab Week 2019

June 24 - 28, 2019 - Toronto, Canada ([Metro Toronto Convention Centre](#))

- Early bird registration is available until **April 15, 2019**. Register [here!](#)
- For more information, visit the Rehab Week [website!](#)



## Paralyzed Veterans of America (PVA) 2019

### *Annual Summit*

August 15 - 17, 2019 - Orlando, FL ([Renaissance Orlando at SeaWorld Hotel](#))

- [Click here](#) to register!
- Review the program [here!](#)
- Check out the PVA Annual Summit [website](#) for more information!



## 58th International Spinal Cord Society (ISCoS) Meeting 2019

### *Annual Scientific Meeting*

November 5 - 7, 2019 - Nice, France

- Abstract Submission is open until **Tuesday April 30, 2019**. Submit [here!](#)
  - 2019 Abstract themes include: Respiratory Issues; Musculoskeletal Complications; Autonomic Nervous System; Neurological Complications; and Sexuality and Fertility.

- Registration will be opening soon!
- Check out the ISCoS [website](#) for more information!



# Upcoming Conferences: 2020

## APTA Combined Sections Meeting (CSM) 2020

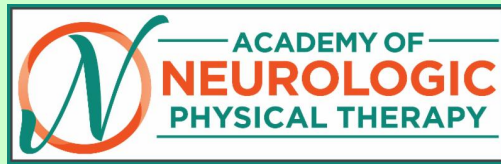
February 12 - 15, 2020 - Denver, CO



Submit your Poster and Platforms Abstracts now!

- [Research Posters and Platforms](#): due **Friday July 12, 2019**

## Visit the ANPT online!



## Thank you!

### ANPT SCI SIG Officers

Rachel Tappan, PT, DPT, NCS, Chair

Meghan Joyce, PT, DPT, NCS, Vice-Chair

Casey Kandilakis, PT, DPT, NCS, Secretary

Cathy Larson, PT, PhD, Nominating Committee Chair

Christi Hutchison, PT, MPT, NCS, Nominating Committee

Sara Hobbs, PT, DPT, NCS, Nominating Committee