

# Oh! the Places They Go: Walking Mobility in Cerebral Palsy

**September 26**

**Tuesday, 12:30 pm**

**Billings Building—Rosedale Room**

**SPEAKER:**



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**Host: Kathleen E. Friel, Ph.D.**

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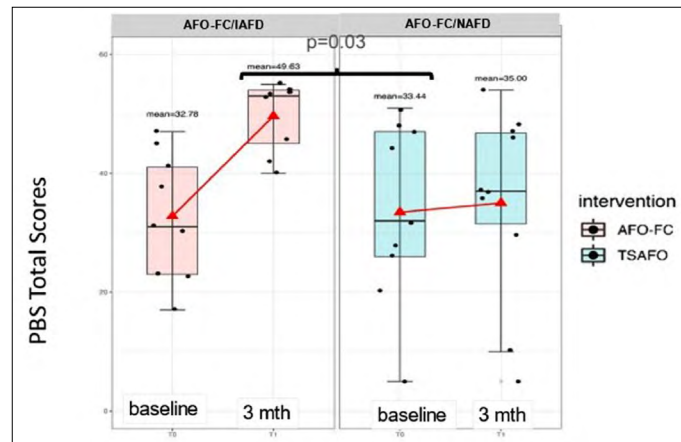
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## Abstract

This presentation will report of the current state of the science for walking activity/mobility in daily life for children with cerebral palsy (CP) as compared to neurotypically developing children.

Community walking mobility was captured by the wearable ankle sensor, the StepWatch.

A novel synchronization of the wearable StepWatch with global positioning devices (GPS) will be described within the context of interventions to enhance community mobility by walking in this population (i.e. orthotics, treadmill training protocols and by motoric distribution). Lastly, three intervention trials to enhance community walking/mobility will be reported including an individualized approach (precision rehabilitation) of orthotic prescription/alignment and



management (Ankle Foot Orthoses Footwear Combinations—AFO-FC), Power training and home based short-burst locomotor treadmill training.

## Publications

- Bjornson, K., Fatone, S., Orendurff, M., Zhou, C., Hurvit, P., Shippen, G. *Individualized orthotic alignment and footwear for balance and mobility in children with bilateral spastic cerebral palsy: A randomized trial.* *Developmental Medicine and Child Neurology.* 2023. DOI: 10.1111/dmcn.15675
- Feldner, H., Gaebler-Spira, D., Awasthi, V., Bjornson, K. *Supportive mobility device use across the life span by individuals with cerebral palsy: A qualitative study.* *Developmental Medicine and Child Neurology.* 2022. DOI: 10.1111/dmcn.15243
- Bjornson K., Moreau N., Bodkin A.W. *Short-burst interval treadmill training walking capacity and performance in cerebral palsy: a pilot study.* *Developmental Neurorehabilitation.* 2019 Feb; 22 (2): 126-133. Doi: 10.1080/17518423.2018.1462270. PMID: 29658831