

Kelly A. Hawkins, PT, DPT, PhD
Board-Certified Clinical Specialist in Neurologic Physical Therapy
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Education

2015 – 2020	PhD in Rehabilitation Science College of Public Health & Health Professions University of Florida Research topic: <i>Neural Control of Walking After Neurological Injury</i>
2006 – 2009	Doctor of Physical Therapy University of Maryland, Baltimore
2002 – 2006	Bachelor of Science in Biological Sciences University of Maryland, College Park

Professional Experience

2021 – present	Research Assistant Professor Department of Physical Therapy, University of Florida
2017 – 2020	Pre-doctoral Fellow T32 Neuromuscular Plasticity Research Training Program Department of Physical Therapy, University of Florida
2015 – 2017	Teaching Assistant Department of Physical Therapy, University of Florida
2014 – 2015	Assistant Professor Department of Physical Therapy, Wingate University
2010 – 2015	Physical Therapist Appalachian Regional Healthcare System, Boone, NC PRN Physical Therapist (2014 – 2015) Staff Physical Therapist (2012 – 2014) Resource Pool Physical Therapist (2010 – 2012)
2011 - 2013	Anatomy Lab Instructor Department of Health, Leisure, and Exercise Science, Appalachian State University
2009 – 2010	Physical Therapist Washington Hospital Center, Washington, D.C.
2009	Anatomy Lab Instructor Department of Physical Therapy and Rehabilitation Science, University of Maryland, Baltimore

Awards and Scholarships

2021 – present	Phase 1 Scholar NIH K12 Rehabilitation Research Career Development Program University of Florida
2017 – 2020	Pre-doctoral Fellowship (T32-HD043730) NIH Neuromuscular Plasticity Research Training University of Florida

2020	Frederick Family Scholarship PhD in Rehabilitation Science Program
2020	Poster Award, Spinal Cord Injury Special Interest Group of the Academy of Neurologic Physical Therapy APTA Combined Sections Meeting
2019	Outstanding Student Publication Award University of Florida Rehabilitation Science PhD Program
2017	Promotion of Doctoral Studies I Scholarship Foundation for Physical Therapy
2017	Academy of Neurologic Physical Therapy Post-Professional Student Research Award APTA Combined Sections Meeting
2016	Travel Award , Graduate Student Council University of Florida
2016	Travel Award , Annual Research Day UF College of Public Health and Health Professions
2016	3rd place , Robert Levitt Research Awards Institute for Learning in Retirement
2015	Florence P. Kendall Post-Professional Doctoral Scholarship Foundation for Physical Therapy
2007	Hobart Scholarship University of Maryland, Baltimore

Licensure

2015 – present	Florida license #PT31067
2010 – 2015	North Carolina license #P12784
2009 – 2010	Washington, D.C. license #PT871052

Board Certification

2015 – present	Board Certified Clinical Specialist in Neurologic Physical Therapy American Board of Physical Therapy Specialties
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Publications

Hawkins KA, DeMark L, Vistamehr A, Snyder HJ, Conroy C, Wauneka C, Tonuzi G, Fuller DD, Clark DJ, Fox EJ. Feasibility of transcutaneous spinal direct current stimulation combined with locomotor training after spinal cord injury. *Spinal Cord*. 2022 Apr 27. doi: 10.1038/s41393-022-00801-1. Epub ahead of print. PMID: 35477745.

Clark DJ, Hawkins KA, Winesett SP, Cox BA, Pesquera S, Miles JW, Fuller DD, Fox EJ. Enhancing locomotor learning with transcutaneous spinal electrical stimulation and somatosensory augmentation: a pilot randomized controlled trial in older adults. *Front. Aging Neurosci*. 2022 Mar 2;14:837467. doi: 10.3389/fnagi.2022.837467. PMID: 35309891; PMCID: PMC8924500.

Clark DJ, Rose DK, Butera KA, Hoisington B, DeMark L, Chatterjee SA, **Hawkins KA**, Otzel DM, Skinner JW, Christou EA, Wu SS, Fox EJ. Rehabilitation with accurate adaptability walking tasks or steady state walking: A randomized clinical trial in adults post-stroke. *Clin Rehabil*. 2021 Aug;35(8):1196-1206. doi: 10.1177/02692155211001682. Epub 2021 Mar 16. PMID: 33722075.

Hornby TG, Reisman DS, Ward IG, Scheets PL, Miller A, Haddad D, Fox EJ, Fritz NE, **Hawkins K**, Henderson CE, Hendron KL, Holleran CL, Lynskey JE, Walter A; and the Locomotor CPG Appraisal

- Team. Clinical Practice Guideline to Improve Locomotor Function Following Chronic Stroke, Incomplete Spinal Cord Injury, and Brain Injury. *Journal of Neurologic Physical Therapy*. 2020 Jan;44(1):49-100.
- Chatterjee SA, Fox EJ, Daly JJ, Rose DK, Wu S, Christou EA, **Hawkins KA**, Otzel DM, Butera KA, Skinner J, Clark DJ. Interpreting prefrontal recruitment during walking after stroke: influence of individual differences in mobility and cognitive function. *Frontiers in Human Neuroscience*. 2019 Jun 18;13:194.
- Hawkins KA**, Balasubramanian CK, Vistamehr A, Conroy C, Rose DK, Clark DJ, Fox EJ. Assessment of backward walking unmasks mobility impairments in post-stroke community ambulators. *Topics in Stroke Rehabilitation*. 2019;26(5):382-8.
- Hawkins KA**, Fox EJ, Daly JJ, Rose DK, Christou EA, McGuirk TE, Otzel DM, Butera KA, Chatterjee SA, Clark DJ. Prefrontal over-activation during walking in people with mobility deficits: interpretation and functional implications. *Human Movement Science*. 2018; 59: 46-55.
- Hawkins KA**, Clark DJ, Balasubramanian CK, Fox EJ. Walking on uneven terrain in healthy adults and the implications for people after stroke. *NeuroRehabilitation*. 2017;41(4):765-774.
- Boyd CM, Fraiman JL, **Hawkins KA**, Labin JM, Sutter MB, Wahl MR. Effects of the STAR intervention program on interactions between campers with and without disabilities during inclusive summer day camp activities. *Education and Training in Developmental Disabilities*. 2008;43(1):92-101.

Abstracts

- Olarewaju T, **Hawkins KA**, Brunetti G, Snyder H and Fox EJ. Concurrent gains in walking and trunk control following intense walking rehabilitation post spinal cord injury. Combined Sections Meeting of the American Physical Therapy Association. San Diego, CA. February 2023.
- Williams TE, DeMark L, Conroy C, **Hawkins KA**, Snyder HJ, Wauneka C, Fox EJ. Stretch induced changes in motor output and function in people with spinal cord injury. Combined Sections Meeting of the American Physical Therapy Association. San Diego, CA. February 2023.
- Brunetti G, **Hawkins KA**, DeMark L, Olarewaju T, Conroy C, Fox, EJ. Seated trunk control: proposed definition and framework for assessment after spinal cord injury. Combined Sections Meeting of the American Physical Therapy Association. San Diego, CA. February 2023.
- Hawkins KA**, Fuller DD, Clark DJ, Fox EJ. Transcutaneous spinal direct current stimulation applied during locomotor training: Effects on spinal reflexes and walking function in adults with incomplete spinal cord injury. Pediatric NeuroRecovery Summit. Louisville, KY. April 2022.
- Olarewaju T, **Hawkins KA**, Brunetti G, Snyder H and Fox EJ. Disparate trunk and walking function outcomes in people with incomplete spinal cord injury. College of Public Health and Health Professions Research Day. University of Florida. Gainesville, FL. February 2022.
- Williams TE, DeMark L, Conroy C, **Hawkins KA**, Snyder HJ, Wauneka C, Fox EJ. Stretch-induced effects on muscle activation and motor function in adults with spinal cord injury. College of Public Health and Health Professions Research Day. University of Florida. Gainesville, FL. February 2022.
- Hawkins KA**, DeMark L, Snyder HJ, Vistamehr A, Conroy C, Wauneka C, Tonuzi G, Fuller DD, Clark DJ, Fox EJ. Feasibility of transcutaneous spinal direct current stimulation combined with locomotor training after spinal cord injury. Combined Sections Meeting of the American Physical Therapy Association. San Antonio, TX. February 2022.

- Olarewaju T, **Hawkins KA**, Brunetti G, Snyder H and Fox EJ. Is Seated Trunk Control Associated with Walking Function in Chronic Incomplete Spinal Cord Injury? Combined Sections Meeting of the American Physical Therapy Association. San Antonio, TX. February 2022.
- Brunetti G, **Hawkins KA**, Cavka KL, Snyder H, Olarewaju T, Fox EJ. Trunk Strength Is Associated with Maximal Respiratory Pressure Generation in Individuals with Spinal Cord Injury. Combined Sections Meeting of the American Physical Therapy Association. San Antonio, TX. February 2022.
- Hawkins KA**, Fuller DD, Clark DJ, Fox EJ. Effects of transcutaneous spinal direct current stimulation applied during walking rehabilitation on spinal reflex modulation, reflex behavior and walking function. Neuroscience 2021. Chicago, IL. November 2021.
- Hawkins KA**, DeMark L, Vistamehr A, Tonuzi G, Fuller DD, Clark DJ, Fox EJ. Effects of transcutaneous spinal direct current stimulation with locomotor training on spinal excitability and modulation post-spinal cord injury. 15th Annual Neuromuscular Plasticity Symposium. University of Florida. Gainesville, FL. March 2020.
- Hawkins KA**, DeMark L, Vistamehr A, Tonuzi G, Fuller DD, Clark DJ, Fox EJ. Transcutaneous spinal direct current stimulation with locomotor training to alter spinal excitability post-spinal cord injury. Combined Sections Meeting of the American Physical Therapy Association. Denver, CO. February 2020.
- Hawkins KA**, DeMark L, Vistamehr A, Tonuzi G, Fuller DD, Clark DJ, Fox EJ. The effect of combined transcutaneous direct current stimulation and locomotor training on spinal excitability in an individual with chronic spinal cord injury. World Congress of the International Society of Posture and Gait Research. Edinburgh, Scotland. July 2019.
- Hawkins KA**, DeMark L, Vistamehr A, Tonuzi G, Fuller DD, Clark DJ, Fox EJ. Transcutaneous spinal direct current stimulation and locomotor training: Effect on spinal excitability in an individual with chronic SCI. 25th Annual Kentucky Spinal Cord and Head Injury Research Trust Symposium. Louisville, KY. May 2019.
- Hawkins KA**, DeMark L, Vistamehr A, Tonuzi G, Fuller DD, Clark DJ, Fox EJ. The effect of transcutaneous direct current stimulation combined with locomotor training on spinal excitability in people with spinal cord injury. 14th Annual Neuromuscular Plasticity Symposium. University of Florida. Gainesville, FL. March 2019.
- Hawkins KA**, Balasubramanian CK, Vistamehr A, Conroy C, Rose DK, Clark DJ, Fox EJ. Backward walking impairments in post-stroke community ambulators. 13th Annual Neuromuscular Plasticity Symposium. University of Florida. Gainesville, FL. March 2018.
- Hawkins KA**, Vistamehr A, Balasubramanian CK, Conroy C, Rose DK, Clark DJ, Fox EJ. Post-stroke community ambulators demonstrate deficits in backward walking. Combined Sections Meeting of the American Physical Therapy Association. New Orleans, LA. February 2018.
- Chatterjee SA, Albert CM, Fox EJ, Daly JJ, Rose DK, Christou EA, **Hawkins KA**, Otzel DM, Butera KA, Clark DJ. Increased prefrontal cortical activation during typical walking is associated with greater dual-task costs after stroke: an fNIRS study. Combined Sections Meeting of the American Physical Therapy Association. New Orleans, LA. February 2018.
- Balasubramanian C, Clark D, **Hawkins K**, Alqahtani F, Fox E. Backward walking speed shows potential to serve as an indicator of mobility impairments in community-dwelling stroke survivors. Combined Sections Meeting of the American Physical Therapy Association. New Orleans, LA. February 2018.

Hawkins KA, Vistamehr A, Balasubramanian CK, Conroy C, Rose DK, Clark DJ, Fox EJ. Backward walking impairments in post-stroke community ambulators. 12th Annual Neuromuscular Plasticity Symposium. University of Florida. Gainesville, FL. March 2017.

Albert C, Fox E, Daly J, Rose D, Christou E, **Hawkins K**, Otzel D, Butera K, Chatterjee S, and Clark D. Prefrontal cortical activation during walking predicts dual-task costs after stroke. University of Florida College of Medicine Celebration of Research, February 27, 2017.

Hawkins KA, Fox EJ, Daly JJ, Rose DK, Christou EA, Nadeau SE, Otzel DM, Butera KA, Chatterjee SA, Rajaravivarma R, Ring SA, Emery H, Clark DJ. Thinking about walking: functional neuroimaging demonstrates increased demand for executive control of walking in adults with mobility deficits. Combined Section Meeting, American Physical Therapy Association. San Antonio, TX. February 2017.

Hawkins KA, Fox EJ, Daly JJ, Rose DK, Christou EA, Nadeau SE, Otzel DM, Butera KA, Chatterjee SA, Rajaravivarma R, Ring SA, Emery H, Clark DJ. Executive control of walking in adults with mobility deficits quantified by fNIRS neuroimaging. Neuroscience 2016. San Diego, CA. November 2016.

Hawkins KA, Fox EJ, Daly JJ, Rose DK, Christou EA, Nadeau SE, Otzel DM, Butera KA, Chatterjee SA, Rajaravivarma R, Ring SA, Emery H, Clark DJ. Functional neuroimaging during walking quantifies demand for executive locomotor control. Spotlight on Research in Aging. University of Florida, Institute on Aging. Gainesville, FL. September 2016.

Hawkins KA, Fox EJ, Daly JJ, Rose DK, Christou EA, Nadeau SE, Otzel DM, Butera KA, Chatterjee SA, Rajaravivarma R, Ring SA, Emery H, Clark DJ. Functional neuroimaging during walking quantifies demand for executive locomotor control. College of Public Health and Health Professions Research Day. University of Florida. Gainesville, FL. April 2016.

Hawkins KA, Fox EJ, Daly JJ, Rose DK, Christou EA, Nadeau SE, Otzel DM, Butera KA, Chatterjee SA, and Clark DJ. Functional neuroimaging during walking quantifies demand for executive locomotor control. 11th Annual Neuromuscular Plasticity Symposium. University of Florida. Gainesville, FL. March 2016.

Hawkins KA, Fox EJ, Daly JJ, Rose DK, Christou EA, Nadeau SE, Otzel DM, Butera KA, Chatterjee SA, Rajaravivarma R, Ring SA, Emery H, Clark DJ. Functional neuroimaging during walking reveals higher demand for executive locomotor control in people with mobility deficits. 6th Annual Institute for Learning in Retirement Research on Aging Exposition. Gainesville, FL. February 2016.

Presentations

Hawkins KA. Rehabilitation strategies to promote walking automaticity after spinal cord injury and in aging. Rehabilitation Science Seminar. University of Florida. Gainesville, FL September 2021.

Hawkins KA. Single-session effects of transcutaneous spinal direct current stimulation with locomotor training on spinal excitability and modulation in individuals with incomplete spinal cord injury. Neuromuscular Plasticity Nines. University of Florida. Gainesville, FL. June 2020.

Hawkins KA. The effect of combined transcutaneous direct current stimulation and locomotor training on spinal excitability in people with spinal cord injury. Neuromuscular Plasticity Nines. University of Florida. Gainesville, FL. June 2019.

Hawkins KA. Backward walking impairments in post-stroke community ambulators. Neuromuscular Plasticity Noons. University of Florida. Gainesville, FL. June 2018.

Hawkins KA, Vistamehr A, Balasubramanian CK, Conroy C, Rose DK, Clark DJ, Fox EJ. Post-stroke community ambulators demonstrate deficits in backward walking. Combined Sections Meeting of the American Physical Therapy Association. New Orleans, LA. February 2018.

Hawkins KA. Backward walking impairments in post-stroke community ambulators. Neuromuscular Plasticity Noons. University of Florida. Gainesville, FL. July 2017.

Hawkins KA, Fox EJ, Daly JJ, Rose DK, Christou EA, Nadeau SE, Otzel DM, Butera KA, Chatterjee SA, Rajaravivarma R, Ring SA, Emery H, Clark DJ. Quantifying the executive demand of walking with fNIRS neuroimaging. World Congress, International Society of Posture and Gait Research. Ft. Lauderdale, FL. June 2017.

Hawkins KA. Thinking about walking: functional neuroimaging demonstrates increased demand for executive control of walking in adults with mobility deficits. Combined Sections Meeting of the American Physical Therapy Association. San Antonio, TX. February 2017.

Hawkins KA. Executive control of locomotion in adults with mobility impairments. Neuromuscular Plasticity Noons. University of Florida. Gainesville, FL. June 2016.

Hawkins KA. Functional neuroimaging during walking quantifies demand for executive locomotor control. College of Public Health and Health Professions Research Day. University of Florida. Gainesville, FL. April 2016.

Hawkins KA. Thinking about walking: functional neuroimaging of executive control utilization. Institute for Learning in Retirement. Gainesville, FL. March 2016.

Funding

Awarded

Craig H. Neilsen Foundation

SCIRT Pilot Award

ID: 890033

\$300,000 total

Transcutaneous Spinal Direct Current Stimulation to Enhance Locomotor Rehabilitation after SCI

Role: Co-Investigator

PENDING or Recent Applications

NIH/NICHHD

Early Career Research Award (R03 Clinical Trial Optional)

ID: 10598675

\$200,000 total

Trunk control after human spinal cord injury

Role: Principal Investigator

Teaching

Current teaching responsibilities

Neuroscience in Physical Therapy

Neurorehabilitation I

Motor Control/Therapeutic Exercise II

Courses taught

Human Gross Anatomy

Clinical Practice I (Screening and Examination)

Clinical Practice II (Evaluation, Diagnosis and Introduction to Intervention)

Applied Kinesiology

Professional Membership and Service

Member

American Physical Therapy Association (2007 – present)

Neurology section (2009 – present)

Research section (2015 – present)

Society for Neuroscience (2016 – present)

International Society of Posture and Gait Research (2016 – present)

American Society of Neurorehabilitation (2017 – present)

Reviewer

PTJ: Physical Therapy & Rehabilitation Journal

Topics in Stroke Rehabilitation

Journal of Acute Care Physical Therapy

University/Department Service

University of Florida

Department level

2022 – present

Member, Scholarship Committee

2021 – present

Member, Community Engagement & Outreach Task Force

2021 – present

Volunteer Clinical Instructor, UF Physical Therapy Equal Access Clinic

Wingate University

Department level

2014 – 2015

Member, Admissions Committee