

SEMINAR SERIES

Supported by The Department of Biomechanics and
The Center for Research in Human Movement Variability (MOVCENTR)



WHAT DO STEP ACTIVITY PATTERNS REVEAL ABOUT THE FUNCTIONALITY OF AMBULATORY BEHAVIOR?

Featuring Dr. Jim Cavanaugh

University of New England



September 13, 2019 | 12:00 - 1:15 pm | H&K 112

Parking Available in Lot T

ABSTRACT

Human ambulation can be conceived of as complex adaptive stepping behavior. Indeed, a hallmark of skilled, successful, and safe ambulation is the ability to adapt basic gait patterns to meet the ever-changing environmental demands and/or goal of the person. In this lecture, Dr. Cavanaugh applies concepts of complexity and adaptability to the analysis of free-living step activity patterns to promote a deeper understanding of human ambulation.

ABOUT DR. CAVANAUGH

Jim Cavanaugh PT, PhD is a Professor in the Department of Physical Therapy at the University of New England in Portland, ME. He received a BA in Psychology from the University of Notre Dame in 1985 and completed his physical therapy training with a MS degree from Duke University in 1987. In 2004, he earned a PhD in Human Movement Science from the University of North Carolina at Chapel Hill, where his doctoral work focused on using analytical methods derived from nonlinear dynamics to detect subtle changes in postural control among collegiate athletes with cerebral concussion. His subsequent studies of human ambulatory activity patterns have used similar methodology to provide insights about the mobility behavior of community-dwelling older adults, individuals with Multiple Sclerosis, and individuals with Parkinson disease. A longstanding collaborator of Dr. Nicholas Stergiou, Dr. Cavanaugh's interest in complexity science has led to several publications on the implications of human movement variability for the physical therapy community. His clinical research and teaching focus on rehabilitation interventions for improving functionality and sustainable physical activity in individuals with balance and mobility problems, many of whom have neurological health conditions.

more info at cobre.unomaha.edu

*This seminar was supported by the National Institutes of General Medical Sciences of the National Institutes of Health under Award Number P20GM109090 Center for Research in Human Movement Variability. | The University of Nebraska at Omaha shall not discriminate based upon age, race, ethnicity, color, national origin, gender/identity, sex, pregnancy, disability, sexual orientation, genetic information, veteran's status, marital status, religion, or political affiliation.

UNIVERSITY OF
Nebraska
Omaha

