

# Nicole Bohnsack-McLagan

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## Education

Jan 2011- May 2014      University of Texas      Austin, TX

### **Doctorate of Philosophy - Kinesiology and Exercise Science**

*Dissertation Topic:* Adaptability of Stride-to- Stride Control of Stepping Movements in Human Walking and Running and a Predicted Walk-to-Run Transition.

Fall 2008 - Fall 2010      University of Texas      Austin, TX

### **Masters of Science - Kinesiology**

*Thesis Topic:* Body dynamics during Chi Running  
Graduate coursework in statistics, biomechanics, engineering, exercise physiology and anatomy.

Fall 2004-Fall 2008      Pennsylvania State University      State College, PA

### **Bachelor of Science - Kinesiology**

Coursework in biomechanics, exercise physiology, anatomy, neuroscience, and business.

## Employment

2014-2016 Owner/Operator of The Motion Lab, LLC. Independently owned and operated gait evaluation company partnered with Sport Performance International in Austin, Texas.

2014- 2016. Lecturer. University of Texas at Austin. Kinesiology and Health Education. || Undergraduate Biomechanics (326k)

2014 – Current. Assistant Professor of Practice. University of Texas at Austin. Kinesiology and Health Education. || Management of the Cardio PED classes.

2017- Current. Clinical Gait assessments (Stride FIT) through the University of Texas FIT institute. || Gait evaluations and consulting.

## Research Experience

Summer 2014. *Post Doc, Nonlinear Biodynamics Lab, University of Texas.* Research: Manuscript preparation for three independent papers from dissertation research, “*Determining how Humans Regulate Variability during Walking and Running.*”

2010-Spring 2014. *Graduate Research Assistant, Department of Kinesiology, University of Texas.* Current Ph.D. research focusing on determining the control strategies humans use to regulate stride-to-stride movements during walking under different conditions / constraints.

Dissertation is titled, “*Determining how Humans Regulate Variability during Walking and Running.*”

2008-2010. *Graduate Research Assistant, Department of Kinesiology, University of Texas.* M.S. Thesis compared Chi Running to traditional running. Required extensive use of Vicon Workstation, Vicon Nexus, Visual 3D, and MatLab.

Spring 2007. *Undergraduate Research Assistant, Department of Kinesiology, Penn State.* Worked as research assistant with Dr. Stephen J. Piazza. Research consisted of helping a doctoral student measure muscle moment arms of the soleus using ultrasound technologies.

## Publications

Dingwell, Jonathan & Bohnsack-McLagan, Nicole & Cusumano, Joseph. (2018). Humans Control Stride-to-Stride Stepping Movements Differently for Walking and Running, Independent of Speed. *Journal of Biomechanics*. 76. 10.1016/j.jbiomech.2018.05.034.

Bohnsack-McLagan, Nicole & Cusumano, Joseph & Dingwell, Jonathan. (2015). Adaptability of Stride-To-Stride Control of Stepping Movements in Human Walking. *Journal of Biomechanics*. 49. 10.1016/j.jbiomech.2015.12.010.

## Presentations

Bohnsack, Nicole. Abraham, Lawrence. “Body Dynamics during Chi Running.” Gait and Clinical Movement Analysis Society Conference. Bethesda, MD. April 2011. Poster.

Bohnsack, Nicole. Dingwell, Jonathan. Cusumano, Joseph P. “Determining how humans regulate variability during walking.” American Society of Biomechanics Conference. Omaha, Nebraska. September 2013. Poster

Bohnsack, Nicole. Dingwell, Jonathan. Cusumano, Joseph P. “Adaptability of Stride-to- Stride Control of Stepping Movements in Human Walking and Running.” Society for Neuroscience. San Diego, California. November 2013. Poster

Bohnsack-McLagan, Nicole. Dingwell, Jonathan. Cusumano, Joseph P. “Determining How Humans Regulate Variability during Walking and Running.” World Congress of Biomechanics. Boston, Massachusetts. July 2014. Poster

Bohnsack-McLagan, Nicole. Dingwell, Jonathan. Cusumano, Joseph P. “Determining how Humans Regulate Variability during a Predicted

Walk-to-Run Transition.” Society for Neuroscience. Washington D.C.  
November 2014. Poster

**Awards**

Alderson Teaching fellowship, UT Austin, 2011, 2012, 2013, 2014

McCraw Endowed Presidential Fellowship, UT Austin, 2011 & 2012

Penn State Athletic Scholarship for Track & Field, 2004-2008

**Interests and  
activities**

Running, cycling, swimming, and triathlons. Outdoor enthusiast: hiking, camping, rock climbing, mountaineering and skiing. Member of the Merrell footwear Adventure Racing Team.