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ACADEMIC AND EMPLOYMENT HISTORY

EDUCATION

- August 2011 **Doctor of Philosophy** University of Nebraska Medical Center
 Concentration: Biomechanics
 Omaha, Nebraska
 Dissertation: The Effect of Aging and Vascular Occlusion on Gait Variability
- August 2007 **Master of Science** University of Nebraska at Omaha
 Major: Exercise Science
 Concentration: Biomechanics
 Omaha, Nebraska
 Thesis: The Effect of Peripheral Arterial Disease on Variability Present in
 Gait Patterns
- December 2004 **Bachelor of Science** University of Nebraska at Omaha
 Major: Exercise Science
 Omaha, Nebraska

ACADEMIC APPOINTMENTS

- 2011- **Assistant Professor** School of Health, Physical Education and Recreation
 University of Nebraska at Omaha Omaha, Nebraska
- 2013- **Director** Gait Analysis Laboratory, Biomechanics Research Building
 University of Nebraska at Omaha Omaha, Nebraska
- 2005- **Without Compensation (WOC) Research Associate**
 Omaha Veterans' Affairs Medical Center Omaha Nebraska
- 2010-2013 **Assistant Director** Nebraska Biomechanics Core Facility
 University of Nebraska at Omaha Omaha, Nebraska
- 2009-2011 **Senior Research Associate** School of Health, Physical Education and Recreation
 University of Nebraska at Omaha Omaha, Nebraska
- 2005-2010 **Peripheral Arterial Disease Study Coordinator**
 School of Health, Physical Education and Recreation
 University of Nebraska at Omaha Omaha, Nebraska
- 2007-2009 **Cognition and Gait Study Coordinator**
 (1/2007-8/2009) School of Health, Physical Education and Recreation
 University of Nebraska at Omaha Omaha, Nebraska
- 2007-2009 **Graduate Research Assistant**
 (1/2005-8/2009) School of Health, Physical Education and Recreation
 University of Nebraska at Omaha Omaha, Nebraska
- 2005-2007 **Graduate Teaching and Research Assistant**
 (8/2005 – 2007) School of Health, Physical Education and Recreation

University of Nebraska at Omaha

Omaha, Nebraska

HONORS AND AWARDS

2014.....	Midlands Business Journal's 2014 class of 40 Greater Omaha, Sarpy County and Council Bluffs entrepreneurs, executives and professionals under the age of 40.	
2014.....	National Institutes of Health Loan Repayment Program Renewal Recipient, 2014-2016	
2013.....	Podium Session Chair, American Society of Biomechanics Annual Meeting	
2013.....	National Institutes of Health Loan Repayment Program Renewal Recipient, 2013	
2013.....	Attendee of the Training in Grantsmanship for Rehabilitation Research workshop	
2011-2013	National Institutes of Health Loan Repayment Program Recipient	
2011-present...	Member, NASA Nebraska Space Grant and EPSCoR Technical Advisory Committee	
2010.....	American Alliance for Health, Physical Education, Recreation, and Dance Ruth Abernathy Presidential Scholarship	Amount:\$1750
2009-2011	National Institutes of Health, Ruth L. Kirschstein National Research Service Predoctoral Fellowship	Amount:\$86408
2009-2010	NASA Nebraska Space Grant Fellowship	Amount:\$2500
2009.....	American Alliance for Health, Physical Education, Recreation and Dance Graduate Student Grant	Amount:\$3000
2009.....	NASA Nebraska Travel Grant	Amount: \$700
2009.....	University of Nebraska at Omaha Research and Creative Activity Graduate Poster Second Place	
2009.....	NASA Nebraska Space Grant Fellowship	Amount: \$5000
2008.....	Finalist, European Society of Biomechanics Clinical Biomechanics Award	
2008.....	American Society of Biomechanics Grant-in-Aid	Amount: \$2000
2008.....	NASA Nebraska Space Grant Scholarship for Service	Amount: \$1000
2007	American Heart Association Student Scholarship in Cardiovascular Disease and Stroke	Amount: \$2000
2007.....	University of Nebraska at Omaha Graduate Summer Scholarship	Amount: \$1000
2007.....	University of Nebraska at Omaha Graduate Thesis Scholarship	Amount: \$1000
2007.....	Exercise Science Outstanding Graduate Student, University of Nebraska at Omaha	
2006.....	NASA Nebraska Space Grant Scholarship for Service	Amount:\$500
2006.....	Kate Field Grant in Aid Recipient	Amount: \$8000
2006.....	Ray Griffin Scholarship	Amount: \$400
2005-2009	Graduate Assistantship, University of Nebraska at Omaha	
2004.....	Graduated Summa Cum Laude, University of Nebraska at Omaha	
2004-2005	University of Nebraska at Omaha Women's Basketball Scholarship	Amount:\$1250
2004.....	Todd Hendrickson Scholarship	Amount: \$750
2003.....	Hamilton County Community Foundation Scholarship	Amount: \$400
2004.....	College of Education Dean's Award	
2004.....	University Honors Convocation Award	
2004.....	College of Education Outstanding Undergraduate Award	
2003, 2004.....	Helen B. Hewitt Scholarship	Amount: \$1500
2002-2004	Emley Undergraduate Scholarship	Amount: \$800
2001-2005	Dean and Chancellor's List	
2001.....	Frank and Alice Farr Scholarship	Amount: \$1500
2001.....	James M. Cox Scholarship	Amount: \$1000

2001.....Elks Club Regional Scholarship

Amount: \$300

RESEARCH GRANTS AWARDED

1. Harnessing movement variability to treat and prevent motor related disorders.
Grantor: National Institutes of Health, 2014-2018, \$10,748,897. Role: Research Project PI.
2. Attachable radiation reduction extension support sheath (ARRESS) and the lock-block, stat-lock radiation reduction shield to reduce occupational health hazards for interventional radiologists.
Grantor: Nebraska Research Initiative, 2014-2015, \$250,000. Role: UNO PI.
3. Portable gait variability device for clinical assessment utilizing a smartphone interface.
Grantor: Nebraska Research Initiative, 2013-2015, \$100,000. Role: PI.
4. Biomechanics Research Building equipment.
Grantor: Nebraska Research Initiative, 2013, \$843,005. Role: Co-Investigator
5. 37th American Society of Biomechanics Annual Conference.
Grantor: National Institutes of Health/National Institute of Biomedical Imaging and Bioengineering, 2013, \$18,750. Role: Co-Investigator.
6. Use of gait analysis to assess the likelihood of falls in at-risk populations.
Grantor: Nebraska Research Initiative, 2012-2013, \$82,500. Role: Co-Investigator.
7. Major research instrument acquisition: Acquisition of ETG-4000 24 Channel Optical Topography system for research, training, and outreach activities.
Grantor: National Science Foundation. 2012-2013, \$233,367. Role: Co-Investigator.
8. Dual Tasking: A paradigm for cognitive and physical functioning assessment and training for astronauts.
Grantor: NASA Nebraska Space Grant Research Mini-Grant, 2012-2013, \$25000. Role: PI.
9. Gait after intervention trial in peripheral arterial disease.
Grantor: Veterans' Affairs Rehabilitation Research and Development Program, 2012-2016, \$803,364, Role: UNO PI.
10. The relationship between ambulatory activity patterns and gait variability.
Grantor: University Committee on Research and Creative Activity. 2012, \$4500, Role: PI.
11. Effects of blood flow on dynamics of the neuromuscular system.
Grantor: Fund for Investing in the Research Enterprise (FIRE). 2012, \$35,000, Role:PI.
12. Sensory interaction in patients with benign paroxysmal positional vertigo during locomotion in space.
Grantor: NASA Nebraska Space Grant Research Mini-Grant. 2011-2012, \$25,000. Role: Co-PI.
13. Restoration of function post-spaceflight through exercise rehabilitation.
Grantor: NASA Nebraska Space Grant Research Mini-Grant. 2011-2012, \$25,000. Role: Co-PI.
14. The role of tactile sensation on locomotor adaptation in astronauts returning from long duration space flight.
Grantor: NASA EPSCoR, 2011-2014, \$750,000, Role: Co-Investigator
15. Externally powered orthosis to improve mobility after long duration space flight.
Grantor: NASA Nebraska Research Mini-Grant, 2011-2012, \$25,000, Role: PI
16. The effect of physiological mechanisms on muscular strength and skeletal muscle performance.
Grantor: NASA Nebraska Space Grant and EPSCoR, 2010, \$33,995, Role: Co-Investigator
17. The effect of aging and vascular occlusion on gait variability.
Grantor: National Institutes of Health, Ruth L. Kirschstein National Research Service Predoctoral Fellowship (F31), 2009-2011, \$86,408, Role: Fellow

18. The effect of ischemia on muscular strength.
Grantor: NASA Nebraska Space Grant and EPSCoR, 2009-2010, \$2500, Role: PI
19. The effect of aging and vascular occlusion on gait variability.
Grantor: American Alliance for Health, Physical Education, Recreation, and Dance, 2009-2010, \$3000, Role: PI
20. The associations between cognitive and physical function during dual task paradigms.
Grantor: NASA Nebraska Space Grant and EPSCoR, 2009, \$5000, Role: PI
21. The effect of aging and vascular occlusion on variability in gait patterns.
Grantor: American Society of Biomechanics, 2008-2009, \$2000, Role: PI
22. The effect of vascular occlusion on gait variability in healthy young.
Grantor: NASA Nebraska Space Grant and EPSCoR, 2008, \$1000, Role: PI
23. The effect of peripheral arterial disease on variability in gait patterns.
Grantor: American Heart Association, 2007, \$2000, Role: PI
24. Gait adaptations in persons experiencing claudication.
Grantor: NASA Nebraska Space Grant and EPSCoR, 2006, \$500, Role: PI
25. Evaluation of gait abnormalities in geriatric patients induced by peripheral arterial disease utilizing advanced biomedical measures.
Grantor: The American Geriatrics Society, 2006-2008, \$150,000, Role: Co-Investigator
26. A biomedical device for prognostic and diagnostic measures of pathological locomotive bio-rhythms.
Grantor: Nebraska Research Initiative, 2004-2008, \$383,917, Role: Co-Investigator

TOTAL AMOUNT AWARDED FOR RESEARCH RELATED GRANTS: \$14,617,203

REVIEWER AND CONSULTING POSITIONS

- 2014- Reviewer, National Science Foundation, Graduate Research Fellowship program.
- 2014- Member, Omaha Veterans' Affairs Medical Center Institutional Review Board
- 2014- Reviewer, McGraw-Hill publishers, *Measurement by the Physical Educator*
- 2014- Reviewer, Experimental Brain Research
- 2014- Reviewer, University of Nebraska at Omaha, Graduate Research and Creative Activity
- 2014- Reviewer, Knee Surgery, Sports Traumatology, Arthroscopy
- 2014- Reviewer, Department of Defense, Clinical and Rehabilitative Medicine Research Program
- 2013- Reviewer, University of Nebraska at Omaha, Fund for Undergraduate Student Experience
- 2013- Reviewer, Sports Medicine
- 2013- Reviewer, Physical Therapy
- 2013- Reviewer, National Institute on Disability and Rehabilitation Research
- 2013- Reviewer, NASA Nebraska Space Grant Program
- 2013- Reviewer, Medicine and Science in Sports and Exercise
- 2013- Reviewer, Medical Engineering and Physics
- 2013- Reviewer, Journal of Neuroscience
- 2013- Reviewer, Journal of Gerontology: Psychological Sciences
- 2013- Reviewer, Journal of Biomechanics
- 2013- Reviewer, Journal of Applied Biomechanics
- 2013- Reviewer, Gait and Posture
- 2013- Reviewer, Clinical Biomechanics

2013-	Reviewer, Archives of Physical Medicine and Rehabilitation
2013-	Reviewer, American Society of Biomechanics Annual Meeting Abstracts
2013-	Reviewer, American Journal of Physical Medicine and Rehabilitation
2012-	Reviewer, Journal of NeuroEngineering and Rehabilitation
2012-	Reviewer, Annals of Biomedical Engineering
2012-	Reviewer, Ammons Scientific
2012-	Reviewer, American Alliance for Health, Physical Education, and Recreation
2011-	Reviewer, Footwear Science
2011	Reviewer, National Institutes of Health, Small Business Innovation Research

ADVISING AND TEACHING

THESES COMMITTEES (MASTERS)

1. Molly Schieber: *To be determined*. (CHAIRPERSON, expected to propose Fall 2015).
2. Eric Pisciotta: *Effects of aging on the magnitude and regularity of plantar pressure distributions*. (MEMBER, proposed October 2014).
3. Alek Diffendaffer. *A comparison of joint torques and powers during overground versus treadmill walking in patients with peripheral arterial disease*. (CHAIRPERSON, May 2014).
4. Ryan Hasenkamp. *Investigation of muscular strength in peripheral arterial disease*. (CHAIRPERSON, May 2014).
5. Troy Rand. *An investigation into the nonlinear dynamics of center of pressure and fall risk in the elderly*. (CHAIRPERSON, August 2013).
6. Holly Remmenga: *Gait mechanics and proprioceptive adaptations from minimalistic “five-finger” shoe use*. (MEMBER, May 2013).
7. Jon Carey. *Elastic band training protocol to improve preadolescent female leg strength*. (CHAIRPERSON, May 2013).
8. Nathaniel Hunt. *Manipulating gait variability with Fur Elise: Chaotic and fractal variations on a theme*. (MEMBER, August 2012).
9. Neil Huben. *The effect of Masai Barefoot Technology (rocker bottom) shoes on joint kinematics and kinetics*. (MEMBER, May 2011).

DISSERTATION COMMITTEE (DOCTORAL)

1. Xuan Liu: *Title to be determined*. (CHAIRPERSON, Under Development).
2. Bryon Applequist: *Title to be determined*. (CHAIRPERSON, Under Development).
3. Troy Rand: *Title to be determined*. (MEMBER, Under Development).
4. Laura Covert: *Title to be determined*. (MEMBER, Under Development).
5. Panagiotis Koutakis: *Muscle health inpatients with peripheral arterial disease*. (MEMBER, Comprehensive Exam: December 2013, Defense schedule December, 2014)
6. Eric Cutler: *Novel assistive locomotor tool for gait rehabilitation in the elderly*. (MEMBER, Under Development).
7. Jung Chien: *Postural responses to perturbations of the vestibular system during walking in healthy young and older adults*. (MEMBER, Comprehensive Exam: Jan 2013, Anticipated Graduation: Spring 2014).

8. Joshua Haworth: *Perception and production of complex movement variability*. (MEMBER, Comps passed: Aug. 2012, Graduated: Summer 2013).

TEACHING ACTIVITY

2005-2007 (4 semesters)	Laboratory Methods in Exercise Science PE 4010 and PE 8016	Laboratory Section 12-24 students/semester
2006-2007 (2 semesters)	Basic Anatomy and Physiology PE 4630	Laboratory Section 75-80 students/semester
2009 (1 semester)	Measurement and Evaluation for Physical Education PE 4930	42 students/semester
2010 (1 semester)	Exercise for Special Populations HPER 8850	27 students/semester
2010-2012 (6 semesters)	Biomechanics PE 4630	Lecture Section 42 students/semester
2011-2012 (3 semesters)	Basic Anatomy and Physiology I PE 2400/2880	Lecture Section 130 students/semester
2011-2012 (3 semesters)	Laboratory Methods in Exercise Science PE 4010 and PE 8016	Lecture Section 38 students/semester

OTHER ACADEMIC ADVISEMENT ACTIVITIES

1. General Seminar: Presenters in the areas of Exercise Science. Attended by undergraduate, graduate, and post-doctoral students interested in Exercise Science.
2. Individual or Small Group Graduate students: Current literature reviews, relevant to each individuals' project
 - a. Readings in Gait and Movement Pathologies

PROFESSIONAL ACTIVITY & PUBLIC SERVICE

MEMBERSHIPS

- 2013- Member, Council for Undergraduate Research
- 2009 - Member, Society for Neuroscience
- 2007 – 2009 Member, American Heart Association
- 2005 - Member, American Society of Biomechanics
- 2005 - Member, North American Society for the Psychology of Sport and Physical Activity
- 2005 - Member, American Alliance of Health, Physical Education, Recreation and Dance

PUBLIC SERVICE

- 2014- Guest Speaker, UNMC Science Café
- 2014- Guest Speaker, UNO Nonlinear Workshop
- 2014- Guest Speaker, Golden Kiwanis Club of Omaha
- 2014- Guest Speaker, Downtown Rotary Club
- 2014- Guest Speaker, Greater Omaha Kiwanis group
- 2014- Guest Speaker, UNMC Surgery Forum
- 2014- Guest Speaker, Kansas University-Lawrence, Department of Bioengineering
- 2014- Guest Speaker, Omaha VA Research Service Seminar Series
- 2014- Councilor, Health Sciences Division, Council for Undergraduate Research
- 2014- Member, Omaha VA Medical Center IRB
- 2014- Guest Speaker, Department of Cellular and Integrative Physiology at UNMC
- 2013- Guest Speaker, Nebraska Methodist Hospital Rehabilitation Week
- 2013- Guest Speaker, West Omaha Kiwanis group
- 2013- Member, Aging with Passion and Purpose Conference Planning Committee
- 2013- Session Chair, American Society of Biomechanics 2013 Annual Meeting
- 2012- Member, School of Health, Physical Education and Recreation Doctoral Committee
- 2012- Member, Evaluation Committee for Post-Doctoral Research Associates
- 2012- Mentor, American Society of Biomechanics
- 2012- Member, University Committee for the Advancement of Teaching
- 2012-2013 Member, 37th Annual Meeting of the American Society of Biomechanics Organizing Committee
- 2012- Member, NASA Nebraska Technical Advisory Committee
- 2012-2013 Member, Aging with Passion and Purpose Conference Planning Committee
- 2012-2013 Member, Innovations: Inside Nebraska Robotics Exhibit Committee
- 2011- Member, Joint Appointment and Part time Faculty Awards Committee
- 2011-2012 Guest speaker at UNO Athletics Senior Awards Banquet
- 2011 Guest speaker at the HAWK Honor Assembly, Hampton, NE
- 2010-2011 Mentor, University of Nebraska Medical Center High School Alliance Program
- 2010 Member, University of Nebraska at Omaha Chancellor's Commission on the Status of Women Awards Committee
- 2010 Presentation Titled: Research in the Nebraska Biomechanics Core Facility
To: Creighton University Biosciences Graduate students
- 2009 Member, Review Committee for American Society of Biomechanics Grant-In-Aid Program

- 2009-2013 Laboratory tours: What is Biomechanics?
To: R.M. Marrs Magnet Elementary School students as part of the Wellness Stampede at the University of Nebraska at Omaha
- 2009-2012 Advisory Board, University of Nebraska at Omaha Varsity Letter Club
- 2008-2011 Member, University of Nebraska at Omaha Chancellor's Commission on the Status of Women
- 2008-2012 Advisory Board, University of Nebraska at Omaha Women's Basketball Backboard Bunch (Booster Club)
- 2006- Committee Member, St. Luke United Methodist Church Children's Ministry
- 2007- Youth soccer coach for Ralston Soccer Club
- 2007 Presentation Titled: Introduction to Biomechanics
To: University of Nebraska at Omaha Athletic Training Program students
- 2005- Presentation Titled: Running Mechanics and Injury Prevention
To: Yearly to Omaha Running Club Marathon Clinic
- 2001-2004 Omaha Race for the Cure Volunteer
- 2002-2003 Read Across America Volunteer
- 1997-2006 Youth girls basketball coach and camp instructor volunteer

FEATURED IN THE MEDIA

Featured: UNO Magazine, Interviewed November 11, 2014.

Featured: Omaha World Herald, August 15, 2014. *\$10.1 million grant a major stride for UNO.*

Featured: Tom Becka Show. *Center for Research in Human Movement Variability to be housed at UNO.*

Featured: NPR/KIOS News, August 2014. *UNO to be the home of a Center for Research in Human Movement Variability.*

Featured: NPR/KIOS News, August 2014. *Science Café.*

Featured: KETV News, March 2014. *Researchers seek early detection for autism.*

<http://www.ketv.com/news/researchers-see-early-detection-for-autism/24928100>.

Featured: UNO Magazine, October 2013. *Going with the flow.* Page 26.

Featured: UNO Magazine, October 2013. *Setting the pace.* Page 29.

Featured: Midlands Business Journal, October 4, 2013. *New Biomechanics Research Building aims to boost UNO research activity.* Page 11.

Featured: Omaha World Herald, September 6, 2013. *Lab a feather in UNO's cap: New facility devoted to biomechanics is first of its kind.* Midlands.

Featured: New Horizons, September 2013. *NBCF building culminates 17 years of phenomenal research.* Page 10.

Featured: Omaha World Herald, August 5, 2013. *\$6 million research building will give UNO a leg up in biomechanics.* Page 1A.

Interviewed: *UNO Gateway*, January 15, 2013. *Study shows extra pounds may add years to life.* Page 2.

Featured: *University of Nebraska at Omaha School of Health, Physical Education and Recreation Brochure.* Fall 2012.

Featured: *Happenings, UNO College of Education*, Summer 2012. *Did you Know?* Page 7.

Featured: *UNO Magazine*, Spring 2012. *Walking a Fine Line.* Page 22.

Featured: *Happenings, UNO College of Education*, Winter 2011. *New Faculty and Staff.* Page 16

Featured: *Aurora Newsregister*, October 26, 2011. *Fagan siblings urge students to make most of their potential.* Page A4.

Featured: *Aurora Newspaper*, June 1, 2011. *Hampton graduate makes history at UNO*. Page C1.

Featured: *Hawk Times*, March 2011. *Once a Hawk... Always a Hawk*. Page 4.

Featured: *Happenings*, *UNO College of Education*, Winter 2010. National Institutes of Health Grants Recognize Significant Research in the Biomechanics Lab. Page 14.

WORKSHOPS ATTENDED

Attended *Getting started with social media* workshop at the University of Nebraska at Omaha, given by Dr. Sherry Pagoto, University of Massachusetts Medical School. September 5th, 2014.

Training in Grantsmanship for Rehabilitation Research (TIGRR), January 15-19, 2013, Chapel Hill, NC.

American Psychological Association's Advanced Training Institute on Nonlinear Methods for Psychological Science, June 17-22, 2012, Cincinnati, OH.

BIBLIOGRAPHY

ARTICLES IN PEER REVIEWED JOURNALS

1. Wurdeman, S, Jacobsen, A, **Myers, SA**, Stergiou, N. Adaptation and prosthesis effects on stride-to-stride fluctuations in amputee gait. *PLOS ONE*, 2014; June 23;9(6):e100125.
2. Wurdeman, SR, **Myers, SA**, Stergiou, N. Amputation effects on the underlying complexity within transtibial amputee ankle motion. *Chaos*. Epub 2014 March 26.
3. **Myers, SA**, Johanning, JM, Pipinos, II, Schmid, KK, Stergiou, N. Vascular occlusion affects gait variability patterns of healthy younger and older individuals. *Ann Biomed Eng*, 2013; 41(8): 1692-702.
4. Wurdeman, SR, **Myers, SA**, Stergiou, N. Transtibial amputee joint motion has increased attractor divergence during walking compared to non-amputee gait. *Ann Biomed Eng*, 2013; 41(4):806-13.
5. Wurdeman, SR, **Myers, SA**, Jacobsen, AL, Stergiou, N. Prosthesis preference is related to stride-to-stride fluctuations at the prosthetic ankle. *J Rehabil Res Dev*, 2013; 50(5): 671-86.
6. **Myers, SA**, Pipinos, II, Johanning, JM, Stergiou, N. Gait variability of patients with intermittent claudication is similar before and after the onset of claudication pain. *Clin Biomech*. 2012; 26(7):729-34.
7. McGrath, D, Judkins, TN, Pipinos, II, Johanning, JM, **Myers, SA**. Peripheral arterial disease affects the frequency response of ground reaction forces during walking. *Clin Biomech*. 2012; Dec:27(10):1058-63.
8. Wurdeman, SR, **Myers, SA**, Johanning, JM, Pipinos, II, Stergiou, N. External work is deficient in both limbs of patients with unilateral PAD. *Med Eng Physics*. 2012; 34(10):1421-6.
9. Wurdeman, SR, Koutakis, P, **Myers, SA**, Johanning, JM, Pipinos, II, Stergiou, N. Patients with peripheral arterial disease exhibit reduced joint powers compared to velocity patched controls. *Gait Posture*. 2012; 36(3):506-9.
10. Yentes, JM, Husinga, JM, **Myers, SA**, Pipinos, II, Johanning, JM, Stergiou, N. Pharmacological treatment of intermittent claudication does not have a significant effect on gait impairments during claudication pain. 2012; 28(2):184-91.
11. **Myers, SA**, Stergiou, N, Pipinos, II, Johanning, JM. Gait variability patterns are altered in healthy young individuals during the acute reperfusion phase of ischemia-reperfusion. *J Surg Res*. 2010 164(1):6-12.
12. Koutakis, P, Johanning, JM, Haynatzki, GR, **Myers, SA**, Stergiou, N, Longo, GM, Pipinos, II. Abnormal joint powers before and after the onset of claudication symptoms. *J Vasc Surg*. 2010; 52(2):340-7.
13. Koutakis P, Pipinos II, **Myers, SA**, Stergiou N, Lynch TG, Johanning JM. Joint torques and powers are reduced during ambulation for both limbs in patients with unilateral claudication. *J Vasc Surg*. 2010; 51(1):80-8.
14. **Myers, SA**, Johanning, JM, Stergiou, N, Celis, RI, Robinson, L, Pipinos, II. Gait variability is altered in patients with peripheral arterial disease. *J Vasc Surg*. 2009; 49(4):924-31.
15. Pipinos, II, **Myers, SA**, Johanning, JM, Stergiou, N. Response to the editor on "Gait variability is altered in patients with peripheral arterial disease". *J Vasc Surg*. 2009; 50(4):976-7.
16. Celis R, Pipinos II, Scott-Pandorf MM, **Myers SA**, Stergiou N, Johanning JM. Peripheral arterial disease affects kinematics during walking. *J Vasc Surg*. 2009;49(1):127-32.

17. Chen, SJ, Pipinos, I, Johanning, J, Radovic, M, Huisinga, JM, **Myers, SA**, Stergiou, N. Bilateral claudication results in alterations in the gait biomechanics at the hip and ankle joints. *J Biomech.* 2008; 41(11):2506-14.
18. **Myers, SA**, Johanning, JM, Stergiou, N, Lynch, TG, Long, GM, Pipinos, II. Claudication distances and the walking impairment questionnaire best describe the ambulatory limitations in patients with symptomatic peripheral arterial disease. *J Vasc Surg.* 2008; 47(3):550-5.

Under Review

1. **Myers, SA**, Applequist, B, Huisinga, JM, Stergiou, N, Pipinos, II, and Johanning, HM. (Under Review). Gait kinematics and kinetics are more affected by peripheral arterial disease than age. *Submitted to Journals of Gerontology: Biological and Medical Sciences.*
2. Koutakis, P, **Myers, SA**, Cluff, K, Ha, D, Haynatzki, G, McComb, R, Uchida, K, Miserlis, D, Papoutsi, E, Johanning, J, Casale, G, Pipinos, I. (Under Review). Abnormal skeletal muscle morphology is associated with decreased calf muscle strength and walking distances in patients with peripheral arterial disease. *Submitted to Journal of Vascular Research.*
3. Wurdeman, SR, Applequist, BC, Korgan, WE, Yentes, JM, **Myers, SA**, Stergiou, N. (Under Review). Reduced vertical displacement while walking does not coincide with reduced energy expenditure. *Submitted to Gait and Posture.*
4. Koutakis, P, Miserlis, D, **Myers, SA**, Kim, K, Zhu, A, Papoutsi, E, Swanson, S, Ha, D, Thompson, J, Carpenter, L, McComb, R, Johanning, J, Casale, G, Pipinos, I. (Under Review). Abnormal accumulation of desmin in gastrocnemius myofibers of patients with peripheral artery disease: Association with altered myofiber morphology and density, mitochondrial dysfunction and limb function. *Submitted to Journal of Histochemistry and Cytochemistry.*
5. Rand, TR, **Myers, SA**, Kyvelidou, A, Mukherjee, M. (Under Review). The temporal structure of support surface translations drive the temporal structure of postural control during standing. *Submitted to the Journal of Motor Control.*
6. Rand, TR, Wurdeman, SR, Johanning, JM, Pipinos, II, **Myers, SA**. (Under Review). Minimum toe clearance variability is increased in patients with peripheral arterial disease. *Submitted to Journal of Applied Biomechanics.*
7. Wurdeman, SR, Jacobsen, A, **Myers, SA**, Stergiou, N. (Under review). Step activity and six minute walk fail to distinguish between K2/K3 prosthetic feet. *Submitted to Prosthetics and Orthotics International.*
8. Wurdeman, S, Jacobsen, A, **Myers, SA**, Stergiou, N. (Under review). Stride-to-stride fluctuations are related pre/post adaptation for an appropriate prosthesis. *Submitted to Journal of Rehabilitation Research and Development.*
9. Mukherjee, M, Eikema, D, Chien, J, **Myers, SA**, Scott-Pandorf, M, Bloomberg, J, Stergiou, N. (Under Review). Plantar tactile perturbations enhance transfer of split-belt locomotor adaptation. *Submitted to Experimental Brain Research.*
10. Eikema, D, Chien, J, Stergiou, N, **Myers, SA**, Scott-Pandorf, M, Bloomberg, J, Mukherjee, M. (Under Review). Optic flow improves adaptability of spatiotemporal characteristics during split-belt locomotor adaptation with tactile stimulation. *Submitted to Experimental Brain Research.*

Under Preparation

1. Applequist, BC, Wurdeman, SR, Pipinos, II, Johanning, JM, **Myers, SA**. Correlation between clinical and gait parameters in patients with peripheral arterial disease.
2. Rand, TR, **Myers, SA**, Mukherjee, M. Correlation between fear of falling, fall-risk, and the temporal structure of center of pressure during standing.

3. Hasenkamp, RM, Carey, JD, **Myers, SA**. An elastic loading-based exercise program improves strength and power at the ankle.
4. Hasenkamp, RM, **Myers, SA**. The relationship between kinematic variability and ambulatory variability.
5. Liu, **Myers, SA**, Johanning, JM, Pipinos, II. Biomechanics of patients with peripheral arterial disease: A review.
6. Koutakis, P, **Myers, SA**, Pipinos, II, Johanning, JM, Stergiou, N. Joint muscle powers are affected more by peripheral arterial disease than age.
7. Huben, NB, Yentes, JM, **Myers, SA**, Pipinos, II, Stergiou, N, Johanning, JM. Functional loss in peripheral arterial disease is not improved post intervention based on spatio-temporal gait parameters.
8. **Myers, SA**, Johanning, JM, Pipinos, II, Stergiou, N. Gait variability is affected more by peripheral arterial disease than vascular occlusion.
9. Koutakis, P, **Myers, SA**, Johanning, JM, Stergiou, N, Pipinos, II. Gait impairment in peripheral arterial disease patients is independent of level of disease.
10. Yentes, JM, **Myers, SA**, Pipinos, II, Johanning, JM, Stergiou, N. Ankle joint work is significantly reduced in peripheral arterial disease: Implications for gait studies including healthy older adults.
11. Diffendaffer, A, Yentes, J, Wurdeman, S, **Myers, SA**. Redistribution of joint work within the stance phase of gait.
12. Teten, AF, Decker, LM, High, R, Schmid, K, Stergiou, N, **Myers, SA**. Gait affects clustering during phonemic fluency: Differential performance of young versus older healthy adults. *Submitted to J Gerontol B Psychol Sci Soc Sci.*

BOOKS

Published

1. Stergiou, N, Blanke, D, **Myers, SA**, Siu, KC. Biomechanics (In Press) In T. Housch, D. Housch, & G. Johnson (4th), *Introduction to exercise science*. July 1, 2012.

In Progress

1. 100% Myers, SA. Introduction. In: Stergiou N. *Nonlinear Analyses of Human Movement*. E-book. To be determined
2. 50% Myers, SA, Yentes, JM. Time Series. In: Stergiou N. *Nonlinear Analyses of Human Movement*. E-book. To be determined
3. 25% Kyvelidou, A, Siu, KC, Myers, SA, Mukherjee, M. Case Studies. In: Stergiou N. *Nonlinear Analyses of Human Movement*. E-book. To be determined
4. 50% Wurdeman, SR, Myers, SA. Lyapunov Exponent. In: Stergiou N. *Nonlinear Analyses of Human Movement*. E-book. To be determined
5. 75% Vallabhajosula, S, Myers, SA. Surrogation Analysis. In: Stergiou N. *Nonlinear Analyses of Human Movement*. E-book. To be determined.

ABSTRACTS

Published Refereed Abstracts

1. Korgan, W, Renz, J, **Myers, SA**, Wurdeman, SR. Improved prosthetic gait following amputee-specific physical therapy. *Proceedings of the 7th World Congress of Biomechanics*. Boston, MA, July 6-11, 2014.
2. Renz, J, Korgan, W, **Myers, SA**, Wurdeman, SR. Amputee step activity is correlated to stride-to-stride fluctuations at the ankle. *Proceedings of the 7th World Congress of Biomechanics*. Boston, MA, July 6-11, 2014.
3. Hough, ML, **Myers, SA**, Harrison, SJ, McGrath, D, Stergiou, N. Improving elderly gait using a structure auditory stimulus. *Proceedings of the 7th World Congress of Biomechanics*. Boston, MA, July 6-11, 2014.
4. Liu, X, Wurdeman, SR, Pipinos, I, Johanning, JM, **Myers, SA**. Improvements in joint torques and powers in patients with peripheral arterial disease following revascularization. *Proceedings of the 7th World Congress of Biomechanics*. Boston, MA, July 6-11, 2014.
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11. Wurdeman, SR, Jacobsen, AL, **Myers, SA**, Stergiou, N. Stride-to-stride fluctuations are related before and after adaptation for an appropriate prosthesis. *Presented at the 40th American Academy of Orthotists and Prosthetists Annual Meeting and Scientific Symposium*. Chicago, IL, February 26-March 1, 2014.
12. Wurdeman, SR, Jacobsen, SL, **Myers, SA**, Stergiou, N. Adaptation and prosthesis effects on stride-to-stride fluctuations. *Presented at the 40th American Academy of Orthotists and Prosthetists Annual Meeting and Scientific Symposium*. Chicago, IL, February 26-March 1, 2014.
13. Wurdeman, SR, Jacobsen, SL, **Myers, SA**, Stergiou, N. Activity measures fail to discriminate K2/K3 Feet. *Presented at the 40th American Academy of Orthotists and Prosthetists Annual Meeting and Scientific Symposium*. Chicago, IL, February 26-March 1, 2014.
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- skeletal muscle myofibers is associated with limb dysfunction in peripheral arterial disease. *Proceedings of the American Heart Association 2013 Scientific Sessions*. Dallas, TX, USA, November 16-20.
16. **Myers, SA.** Improving mobility using a powered ankle-foot orthosis. *Proceedings of the Fourth Biennial Meeting of Aging with Passion and Purpose: Aging Well in the Age of Technology*. Omaha, NE, USA, October 2013.
 17. Hasenkamp, R, **Myers, SA.** Translating laboratory-based gait measures to healthcare setting using an accelerometer. *Proceedings of the Fourth Biennial Meeting of Aging with Passion and Purpose: Aging Well in the Age of Technology*. Omaha, NE, USA, October 2013.
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 19. Diffendaffer, A, Yentes, J, Wurdeman, S, **Myers, SA.** Redistribution of joint work with in the stance phase of gait. *Proceedings of the 37th Annual Meeting of the American Society of Biomechanics*, Omaha, NE, USA, September 2013.
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 24. Hasenkamp, R, Wurdeman, S, Johanning, J, Pipinos, I, Howe, C, **Myers, SA.** Force output is more variable in patients with peripheral arterial disease. *Proceedings of the 37th Annual Meeting of the American Society of Biomechanics*, Omaha, NE, USA, September 2013.
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 26. Rand, T, Kyvelidou, A, **Myers, SA.** Nonlinear mathematics detect subtle changes in balance measures. *Proceedings of the 37th Annual Meeting of the American Society of Biomechanics*, Omaha, NE, USA, September 2013.
 27. Arnold, B, Carey, J, Rand, T, **Myers, SA.** A novel elastic loading-based exercise program improves both strength and power at the ankle joint. *Proceedings of the 5th Annual UNO Student Research and Creative Activity Fair*. Omaha, Nebraska, March 2013.
 28. Diffendaffer, A, Rand, T, **Myers, SA.** Patients with peripheral arterial disease exhibit greater toe clearance than healthy controls. *Proceedings of the 5th Annual UNO Student Research and Creative Activity Fair*. Omaha, Nebraska, March 2013.
 29. Cutler, E, Wurdeman, S, McGrath, D, **Myers, SA,** Stergiou, N, Huisinga, J. Margin of stability as a metric for balance impairment in multiple sclerosis. *Proceedings of the 5th Annual UNO Student Research and Creative Activity Fair*. Omaha, Nebraska, March 2013.

30. Davidson, A, Vallabhajosula, S, Tan, C, Mukherjee, M, Siu, KC, Yentes, J, McGrath, D, **Myers, SA**. Impact of dual-tasking on lower joint dynamics during stair ascension. *Proceedings of the 5th Annual UNO Student Research and Creative Activity Fair*. Omaha, Nebraska, March 2013.
31. Hasenkamp, R, Wurdeman, S, **Myers, SA**. Ambulatory activity patterns and gait kinematic variability. *Proceedings of the 5th Annual UNO Student Research and Creative Activity Fair*. Omaha, Nebraska, March 2013.
32. Howe, C, **Myers, SA**. Postural control during a perturbed gait task is related to gait variability. *Proceedings of the 5th Annual UNO Student Research and Creative Activity Fair*. Omaha, Nebraska, March 2013.
33. Rand, T, **Myers, SA**. Nonlinear mathematics detect subtle changes in center of pressure measures. *Proceedings of the 5th Annual UNO Student Research and Creative Activity Fair*. Omaha, Nebraska, March 2013.
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INVITED PRESENTATIONS AT MEETING/CONFERENCE/SYMPOSIA

Oral Presentations

1. Wurdeman, SR, Jacobsen, AL, **Myers, SA**, Stergiou, N. Stride-to-stride fluctuations are related pre/post adaptation for an appropriate prosthesis. *Presented at the 2014 Annual Meeting of the Association of Children's Prosthetic-Orthotic Clinics*. Anaheim, CA, March 5-8.
2. Wurdeman, SR, Jacobsen, AL, **Myers, SA**, Stergiou, N. Stride-to-stride fluctuations are related before and after adaptation for an appropriate prosthesis. *Presented at the 40th American*

- Academy of Orthotists and Prosthetists Annual Meeting and Scientific Symposium*. Chicago, IL, February 26-March 1, 2014.
3. Wurdeman, SR, Jacobsen, SL, **Myers, SA**, Stergiou, N. Adaptation and prosthesis effects on stride-to-stride fluctuations. *Presented at the 40th American Academy of Orthotists and Prosthetists Annual Meeting and Scientific Symposium*. Chicago, IL, February 26-March 1, 2014.
 4. Wurdeman, SR, Jacobsen, SL, **Myers, SA**, Stergiou, N. Activity measures fail to discriminate K2/K3 Feet. *Presented at the 40th American Academy of Orthotists and Prosthetists Annual Meeting and Scientific Symposium*. Chicago, IL, February 26-March 1, 2014.
 5. Korgan, W, Wurdeman, SR, Yentes, J, Rand, T, **Myers, SA**, Stergiou, N. Reduced vertical displacement reverses effect of speed on energy expenditures. *Proceedings of the 6th Annual UNO Student Research and Creative Activity Fair*. Omaha, Nebraska, March 7, 2014.
 6. Papoutsi, E, Casale, G, Koutakis, P, **Myers, SA**, Thompson, J, Ha, D, Swanson, S, Zhu, Z, Kim, K, Wurdeman, S, Johanning, J, McComb, R, Pipinos, I. Revascularization improves the myopathy, hemodynamics, and function of the limbs of patients with peripheral arterial disease. (2013). *American Heart Association 2013 Scientific Sessions*. Dallas, TX, USA.
 7. Koutakis, P, Pipinos, I, Cluff, K, Thompson, J, Ha, D, Papoutsi, E, Swanson, S, Zhu, Z, Kim, K, **Myers, SA**, Wurdman, S, Johanning, J, McComb, R, Casale, G. Abnormal morphology of skeletal muscle myofibers is associated with limb dysfunction in peripheral arterial disease. (2013). *American Heart Association 2013 Scientific Sessions*. Dallas, TX, USA.
 8. **Myers, SA**. Improving mobility using a powered ankle-foot orthosis. (2013). *Fourth Biennial Meeting of Aging with Passion and Purpose: Aging Well in the Age of Technology*. Omaha, NE, USA.
 9. Hasenkamp, R, **Myers, SA**. Translating laboratory-based gait measures to healthcare setting using an accelerometer. (2013). *Fourth Biennial Meeting of Aging with Passion and Purpose: Aging Well in the Age of Technology*. Omaha, NE, USA.
 10. Cutler, E, **Myers, SA**, Givens, D, Stergiou, N, Huisinga, J. Walking balance is improved in multiple sclerosis patients after elliptical exercise training. (2013). *37th Annual Meeting of the American Society of Biomechanics*, Omaha, NE, USA.
 11. Diffendaffer, A, Yentes, J, Wurdeman, S, **Myers, SA**. Redistribution of joint work with in the stance phase of gait. (2013). *37th Annual Meeting of the American Society of Biomechanics*, Omaha, NE, USA.
 12. Rand, T, Kyvelidou, A, Mukherjee, M, **Myers, SA**. The temporal structure of center of pressure during standing is affected by proprioceptive input. (2013). *37th Annual Meeting of the American Society of Biomechanics*, Omaha, NE, USA.
 13. Korgan, W, Wurdeman, S, Yentes, J, Rand, T, **Myers, SA**, Stergiou, N. Reduced vertical displacement reverses effect of speed on energy expenditure. (2013). *37th Annual Meeting of the American Society of Biomechanics*, Omaha, NE, USA.
 14. Stergiou, N. **Myers, SA**. Biomechanics collaboration opportunity. (2013). *University of Nebraska at Omaha/University of Agder Global Engagement: Research and Teaching Conference*, Omaha, NE, USA. October 17-19, 2013.
 15. Hasenkamp, R, **Myers, SA**. Gait variability has no relation to cognitive performance on the phonemic fluency test. (2013). *Proceedings of the 2013 Nebraska Academy of Sciences Annual Meeting*, Lincoln, NE, USA. April, 2013.
 16. Leib, D, **Myers, SA**. Acute improvements in elderly gait with a structured auditory stimulus. (2013). *Proceedings of the 5th Annual UNO Student Research and Creative Activity Fair*. Omaha, Nebraska.

17. Wurdeman, S, **Myers, SA**, Jacobsen, A, Stergiou, N. Transtibial amputee prosthesis preference is related to the change in stride-to-stride fluctuations. (2013). *Proceedings of the 5th Annual UNO Student Research and Creative Activity Fair*. Omaha, Nebraska.
18. Davidson, AJ, Chien, JH, Mukherjee, M, Huang, CK, **Myers, SA**, Siu, KC, Stergiou, N. Dynamic postural control using the Locomotor Sensory Organization Test. (2012). *Proceedings of the 2012 Nebraska Academy of Sciences Annual Meeting*, Lincoln, NE, USA.
19. Carey, J, Myers, SA. (2012). Effectiveness of an elastic load-based exercise program in improving balance in healthy individuals. *Proceedings of the 2012 Nebraska Academy of Sciences Annual Meeting*. Lincoln, Nebraska, USA.
20. Davidson, AJ, Chien, JH, Mukherjee, M, Huang, CK, **Myers, SA**, Siu, KC, Stergiou, N. (2012). Dynamic postural control using the Locomotor Sensory Organization Test. *Proceedings of the 2012 Nebraska Academy of Sciences Annual Meeting*. Lincoln, Nebraska, USA.
21. Yentes, J, Wurdeman, SR, Pipinos, II, Johannig, JM, McGrath, D, **Myers, SA**. (2012) Positive ankle work is affected by peripheral arterial disease. *Proceedings of the 36th Annual Meeting of the American Society of Biomechanics*, Gainesville, FL, USA.
22. Wurdeman, SR, Yentes, JM, **Myers, SA**, Jacobsen, A, Stergiou, N. (2012) Both limbs in unilateral transtibial amputees display increased risk for tripping. *Proceedings of the 36th Annual Meeting of the American Society of Biomechanics*, Gainesville, FL, USA.
23. Hasenkamp, R, Yentes, JM, Wurdeman, SR, Stergiou, N, Johannig, JM, Pipinos, II, **Myers, SA**. Plantarflexor strength is related with plantarflexor power during claudication in patients with peripheral arterial disease. (2012). *Proceedings of the Gait & Clinical Movement Analysis Society 2012 Annual Conference*, Grand Rapids, MI, USA.
24. Huang, CK, Chien, JH, **Myers, SA**, Mukherjee, M, Stergiou, N. (2012) The effect of tactile stimuli on the locomotor rhythm depends on the characteristics of the tactile signal. For presentation at *The American Society of Gravitational and Space Research 2012 Annual Meeting*, New Orleans, LA, USA.
25. Hunt, N, Haworth, J, McGrath, D, **Myers, SA**, Stergiou, N. (2012) Manipulation of the structure of gait variability with rhythmic auditory stimulus. *Proceedings of the 36th Annual Meeting of the American Society of Biomechanics*, Gainesville, FL, USA.
26. Wurdeman, SR, Huben, NB, **Myers, SA**, Johannig, JM, Pipinos, II, Stergiou, N. (2011). The affected limb in unilateral peripheral arterial disease patients influences the work of the unaffected limb. Presented at the *16th Annual Gait and Clinical Movement Analysis Society Meeting*. Bethesda, MD, USA.
27. Westcott, JM, Wurdeman, SR, **Myers, SA**, Stergiou, N, Pipinos, II, Johannig, JM. (2011) Location of claudication pain does not accurately reflect gait impairment in PAD patients. Presented at the *6th Annual Academic Surgical Congress*. Huntington Beach, CA, USA.
28. Carey, J, **Myers, SA**. (2011). Elastic band-based resistance training as a method of maintaining muscular strength and mass in healthy adults. Presented at *The Nebraska Academy of Sciences Conference*. Lincoln, Nebraska, USA.
29. Huben, NB, Yentes, JM, **Myers, SA**, Pipinos, II, Johannig, JM. (2011). The effect of revascularization on spatio-temporal gait parameters in patients with symptomatic peripheral arterial disease. Presented at the *2011 National Conference on Undergraduate Research*. Ithaca, New York, USA.
30. Huben, NB, Yentes, JM, Koutakis, P, **Myers, SA**, Johannig, JM, Pipinos, II, Stergiou, N. (2011). Joint kinetics are independent of level of disease in peripheral arterial disease patients. Presented at the *2011 National Conference on Undergraduate Research*. Ithaca, New York, USA.

31. Huben, NB, **Myers, SA**, Pipinos II, Johanning JM, Stergiou N. (2011) Differences in gait improvements following surgery in slow and fast PAD patients. Presented at the *1st Annual Tri-Beta National Biological Honors Society Iota Omega Chapter Research Symposium*. Omaha, NE, USA.
32. Huben, NB, **Myers, SA**, Stergiou, N. (2011) The effects of masai barefoot technology (rocker bottom) shoes on joint kinematics and kinetics. Presented at the *121st Nebraska Academy of Sciences Annual Meeting*. Lincoln, NE, USA.
33. Huben, NB, **Myers, SA**, Pipinos, II, Johanning, JM, Stergiou, N. (2011) Functional loss in peripheral arterial disease is not improved post revascularization based on spatio-temporal gait parameters. Presented at the *Spring 2011 University of Nebraska-Omaha Senior Honors Thesis Symposium*. Omaha, NE, USA.
34. Huben, NB, **Myers, SA**, Siu, KC, Oleynikov, D, Stergiou, N. (2011) Validated robotic laparoscopic surgical training in a virtual-reality environment. Presented at the *3rd Annual UNO Student Research and Creative Activity Fair*. Omaha, NE, USA.
35. **Myers, SA**, Stergiou, N, Johanning, JM, Pipinos, II, Blanke, D. (2011). The effect of age and vascular occlusion on gait variability. Presented at the *2011 American Alliance for Health, Physical Education, Recreation and Dance National Convention and Exposition*. San Diego, California, USA.
36. Fosnaugh, E, Decker, LM, **Myers, SA**, Stergiou, N. (2010) Dual tasking indicates elderly inability to delegate locomotion to lower levels of control. Presented at the *2010 North American Society for the Psychology of Sport and Physical Activity Annual conference*. Tucson, AZ, USA.
37. Huben, NB, Yentes, JM, **Myers, SA**, Pipinos, II, Stergiou, N. (2010) Functional loss is not modulated post intervention in peripheral arterial disease. Presented at the *34th Annual Meeting of the Midwestern Vascular Surgery Society*. Indianapolis, IN, USA.
38. Huben NB, Yentes JM, **Myers SA**, Pipinos II, Stergiou N, Johanning JM. (2010) Spatial and Temporal Gait Parameters Are Not Improved After Revascularization In Symptomatic PAD Patients. Presented at the *34th Annual Midwestern Vascular Surgical Society Meeting*. Indianapolis, IN, USA.
39. Huben NB, Yentes JM, Koutakis P, **Myers SA**, Johanning JM, Pipinos II, Stergiou N. (2010) Gait Impairment in PAD Patients is Independent of Level of Disease. Presented at the *2nd Annual UNO Student Research and Creative Activity Fair*. Omaha, Nebraska, USA.
40. Johanning, JM, **Myers, SA**, Pipinos, II, Stergiou, N. (2010) Vascular occlusion changes gait variability patterns of young individuals. Presented at the *5th Annual Academic Surgical Congress*. San Antonio, TX, USA.
41. Koutakis, P, Katsvelis, D, **Myers, SA**, Johanning, JM, Pipinos, II, Stergiou, N. (2010) Walking velocity does not affect joint powers in peripheral arterial disease. Presented at the *15th Annual Gait and Clinical Movement Analysis Society Conference*. Miami, FL, USA.
42. **Myers, SA**, Decker, LM, Potter, JF, Stergiou, N. (2010) Auditory stimulus alters step width, but not step length gait characteristics of healthy young and elderly individuals. Presented at the *2010 North American Society for the Psychology of Sport and Physical Activity Annual conference*. Tucson, AZ, USA.
43. **Myers, SA**, Johanning, JM, Pipinos, II, Stergiou, N. (2010) The effect of ischemia on muscular strength. Presented at the *Annual Meeting of the Nebraska Academy of Sciences Aeronautics & Space Science Section*. Lincoln, NE, USA.
44. **Myers, SA**, (2009) Clinical Applications in Gait Biomechanics. Presented at the *Nebraska Research and Innovation Conference*. Omaha, NE, USA.
45. Koutakis, P, Yentes, JM, **Myers, SA**, Kaipust, JP, Johanning, JM, Pipinos, II, Stergiou, N. (2009) Lower extremity joint kinetics are altered in patients with unilateral peripheral arterial

- disease. Presented at the *14th Annual Meeting of the Gait and Clinical Movement Analysis Society*. Denver, CO, USA.
46. Johanning, JM, Pipinos, II, Celis, R, **Myers, SA**, Koutakis, P, Stergiou, N. (2008) Quantification of reduced power output during ambulation for affected and non-affected limbs in patients with unilateral claudication. Presented at the *32nd Annual Meeting of the Midwestern Vascular Surgical Society*. Madison, WI, USA.
 47. **Myers, SA**, Stergiou, N. (2008) Applications in biomechanics for rehabilitation: PAD and MS projects. Presented at the *Nebraska Research and Innovation Conference*. Lincoln, NE, USA.
 48. **Myers, SA**, Stergiou, N, Pipinos, II, Johanning, JM, Blanke, D, Chen, SJ. (2008) Gait variability is altered in peripheral arterial disease prior to the onset of pain. Presented at the *16th Congress of the European Society of Biomechanics*. Lucerne, Switzerland. *Finalist for the Clinical Biomechanics Award*
 49. **Myers, SA**, Stergiou, N. (2008) Gait changes following an acute period of ischemia in healthy young individuals. Presented at the *Annual Meeting of the Nebraska Academy of Sciences Aeronautics & Space Science Section*. Lincoln, NE, USA.
 50. **Myers, SA**, Stergiou, N. (2007) Gait adaptations in persons experiencing claudication. Presented at the *Annual Meeting of the Nebraska Academy of Sciences Aeronautics & Space Science Section*. Lincoln, NE, USA.
 51. Radovic, M, Huisinga, JM, **Myers, SA**, Pipinos, II, Johanning, JM, and Chen, SJ. (2007) Effects of vascular surgical treatment on peripheral arterial disease in gait. Presented at the *XXI Congress of the International Society of Biomechanics*. Taipei, Taiwan.
 52. Chen, SJ, Huisinga, JM, **Myers, SA**, Radovic, M, Pipinos, II, Johanning, JM, Stergiou, N. (2007) The effects of peripheral arterial disease on gait stability. Presented at the *XXI Congress of the International Society of Biomechanics*. Taipei, Taiwan.

Poster Presentations

1. Korgan, W, Renz, J, **Myers, SA**, Wurdeman, SR. Improved prosthetic gait following amputee-specific physical therapy. *Presented at the 7th World Congress of Biomechanics*. Boston, MA, July 6-11, 2014.
2. Renz, J, Korgan, W, **Myers, SA**, Wurdeman, SR. Amputee step activity is correlated to stride-to-stride fluctuations at the ankle. *Presented at the 7th World Congress of Biomechanics*. Boston, MA, July 6-11, 2014.
3. Hough, ML, **Myers, SA**, Harrison, SJ, McGrath, D, Stergiou, N. Improving elderly gait using a structure auditory stimulus. *Presented at the 7th World Congress of Biomechanics*. Boston, MA, July 6-11, 2014.
4. Liu, X, Wurdemen, SR, Pipinos, I, Johanning, JM, **Myers, SA**. Improvements in joint torques and powers in patients with peripheral arterial disease following revascularization. *Proceedings of the 7th World Congress of Biomechanics*. Boston, MA, July 6-11, 2014.
5. Hasenkamp, RM, Wurdeman, SR, Pipinos, II, Johanning, JM, **Myers, SA**. Peak ankle plantarflexor torque improves following supervised exercise in patients with peripheral arterial disease. *Proceedings of the 7th World Congress of Biomechanics*. Boston, MA, July 6-11, 2014.
6. Diffendaffer, AZ, Yentes, JM, Wurdeman, SR, Pipinos, II, Johanning, JM, **Myers, SA**. Positive ankle work is decreased in peripheral arterial disease before the onset of claudication. *Proceedings of the 7th World Congress of Biomechanics*. Boston, MA, July 6-11, 2014.
7. Pisciotta, EJ, Wurdeman, SR, yentes, JM, Pipinos, II, Johanning, JM, **Myers, SA**. A comparison of gait parameters between patients with peripheral arterial disease and patients with chronic obstructive pulmonary disease. *Proceedings of the 7th World Congress of Biomechanics*. Boston, MA, July 6-11, 2014.

8. Applequist, BC, Wurdeman, SR, Pipinos, II, Johanning, JM, **Myers, SA**. Gait biomechanics are not improved following supervised treadmill exercise in patients with peripheral arterial disease. *Proceedings of the 7th World Congress of Biomechanics*. Boston, MA, July 6-11, 2014.
9. Arnold, B, Wurdeman, SR, Yentes, JM, Johanning, JM, Pipinos, II, **Myers, SA**. Amount of step width variability is increased in patients with peripheral arterial disease. *Proceedings of the 7th World Congress of Biomechanics*. Boston, MA, July 6-11, 2014.
10. Leib, D, Wurdeman, S, Goodman, D, Pipinos, I, Johanning, J, **Myers, SA**. Differences in passive contributions in walking among healthy young and older adults and persons with PAD. (2013). *37th Annual Meeting of the American Society of Biomechanics*, Omaha, NE, USA.
11. Wurdeman, S, Pipinos, I, Johanning, J, **Myers, SA**. Relationship between a progressive versus single-stage treadmill test for evaluation of claudication. (2013). *37th Annual Meeting of the American Society of Biomechanics*, Omaha, NE, USA.
12. Hasenkamp, R, Wurdeman, S, Johanning, J, Pipinos, I, Howe, C, **Myers, SA**. Force output is more variable in patients with peripheral arterial disease. (2013). *37th Annual Meeting of the American Society of Biomechanics*, Omaha, NE, USA.
13. Arnold, B, Howe, C, Hasenkamp, R, Wurdeman, S, **Myers, SA**. Kinematic variability and accelerometers demonstrate a lack of agreement. (2013). *37th Annual Meeting of the American Society of Biomechanics*, Omaha, NE, USA.
14. Rand, T, Kyvelidou, A, **Myers, SA**. Nonlinear mathematics detect subtle changes in balance measures. (2013). *37th Annual Meeting of the American Society of Biomechanics*, Omaha, NE, USA.
15. Arnold, B, Carey, J, Rand, T, **Myers, SA**. A novel elastic loading-based exercise program improves both strength and power at the ankle joint. (2013). *Proceedings of the 5th Annual UNO Student Research and Creative Activity Fair*. Omaha, Nebraska, USA.
16. Diffendaffer, A, Rand, T, **Myers, SA**. Patients with peripheral arterial disease exhibit greater toe clearance than healthy controls. (2013). *Proceedings of the 5th Annual UNO Student Research and Creative Activity Fair*. Omaha, Nebraska, USA.
17. Cutler, E, Wurdeman, S, McGrath, D, **Myers, SA**, Stergiou, N, Huisinga, J. Margin of stability as a metric for balance impairment in multiple sclerosis. (2013). *Proceedings of the 5th Annual UNO Student Research and Creative Activity Fair*. Omaha, Nebraska, USA.
18. Davidson, A, Vallabhajosula, S, Tan, C, Mukherjee, M, Siu, KC, Yentes, J, McGrath, D, **Myers, SA**. Impact of dual-tasking on lower joint dynamics during stair ascension. (2013). *Proceedings of the 5th Annual UNO Student Research and Creative Activity Fair*. Omaha, Nebraska, USA.
19. Hasenkamp, R, Wurdeman, S, **Myers, SA**. Ambulatory activity patterns and gait kinematic variability. (2013). *Proceedings of the 5th Annual UNO Student Research and Creative Activity Fair*. Omaha, Nebraska, USA.
20. Howe, C, **Myers, SA**. Postural control during a perturbed gait task is related to gait variability. (2013). *Proceedings of the 5th Annual UNO Student Research and Creative Activity Fair*. Omaha, Nebraska, USA.
21. Rand, T, **Myers, SA**. Nonlinear mathematics detect subtle changes in center of pressure measures. (2013). *Proceedings of the 5th Annual UNO Student Research and Creative Activity Fair*. Omaha, Nebraska, USA.
22. Wurdeman, SR, **Myers, SA**, Jacobsen, AL, Stergiou, N. Transtibial amputee prosthesis preference is related to the change in stride-to-stride fluctuations. (2012). *Proceedings of the Annual Assembly for the American Academy of Physical Medicine and Rehabilitation*. Atlanta, Georgia, USA.

23. Carey, J, Rand, T, **Myers, SA**. (2012) A novel elastic loading-based exercise program improves both strength and power at the ankle joint. *Proceedings of the 36th Annual Meeting of the American Society of Biomechanics*, Gainesville, FL, USA.
24. Carey, J, **Myers, SA**. (2012) Effectiveness of an elastic load-based exercise program in improving balance in healthy individuals. *Proceedings of the Gait & Clinical Movement Analysis Society 2012 Annual Conference*, Grand Rapids, MI, USA.
25. Carey, J, **Myers, SA**. (2011). Resistance training alters joint powers in multiple sclerosis patients. *Proceedings of the University of Nebraska at Omaha Centennial Celebration of Student Research and Creativity*. Omaha, Nebraska, USA.
26. Carey, J, **Myers, SA**. (2011). Variability of step width is associated with improvement in cognitive function following resistance training in multiple sclerosis. *Proceedings of the Midlands Neuroscience Conference*, Omaha, Nebraska, USA.
27. Chen, SJ, Pipinos, II, Johanning, JM, Huisinga, JM, **Myers, SA**. (2006). The effect of claudication on joint moments during walking. *Proceedings of the 30th Annual Meeting of the American Society of Biomechanics*. Blacksburg, VA, USA.
28. Chien, JH, Huang, CK, Mukherjee, M, **Myers, SA**, Siu, CK, Stergiou, N. (2012) The effect of a random visual perturbation on gait variability. *Proceedings of the Gait & Clinical Movement Analysis Society 2012 Annual Conference*, Grand Rapids, MI, USA.
29. Cutler, E, Wurdeman, SR, McGrath, D, **Myers, SA**, Stergiou, N, Huisinga, J. (2012) Margin of stability as a metric for balance impairment in multiple sclerosis. *Proceedings of the 36th Annual Meeting of the American Society of Biomechanics*, Gainesville, FL, USA.
30. Cutler, E, Schmid, K, Stergiou, N, Johanning, JM, Pipinos, II, **Myers, SA**. (2012) Gait mechanics differ between healthy controls and patients with peripheral arterial disease. *Proceedings of the Gait & Clinical Movement Analysis Society 2012 Annual Conference*, Grand Rapids, MI, USA.
31. Davidson, AJ, Vallabhajosula, S, Tan, C, Mukherjee, M, Siu, K-C, Yentes, JM, McGrath, D, **Myers, SA**. (2012) Impact of dual-tasking on lower joint dynamics during stair ascension. *Proceedings of the 36th Annual Meeting of the American Society of Biomechanics*, Gainesville, FL, USA.
32. Decker, LM, **Myers, SA**, Stergiou, N. (2010). Performance of dual-tasks requiring language perception, attention, and executive control processes have differential effects on stride width in young adults. *Proceedings of the 2nd Annual UNO Student Research and Creative Activity Fair*. Omaha, Nebraska, USA.
33. Decker, LM, **Myers, SA**, Rodríguez-Aranda, CE, Potter, JF, Stergiou, N. (2009). Performance of dual-tasks requiring language perception, attention, and executive control processes have differential effects on stride width in young adults. *Proceedings of the University of Nebraska at Omaha Centennial Celebration of Student Research and Creative Activity*. Omaha, NE, USA.
34. Decker, LM, **Myers, SA**, Rodríguez-Aranda, CE, Potter, JF, Stergiou, N. (2009). Performance of dual-tasks requiring language perception, attention, and executive control processes have differential effects on stride width in young adults. *Proceedings of the Society for Neuroscience's 39th Annual Meeting*. Chicago, IL, USA.
35. Decker, LM, Rodríguez-Aranda, C, **Myers, SA**, Potter, JF, Stergiou, N. (2009). Dichotic listening while walking: A dual-task paradigm to study gait changes in elderly populations. *Proceedings of the 19th IAGG World Congress of Gerontology and Geriatrics*. Paris, France.
36. Decker, LM, **Myers, SA**, Rodríguez-Aranda, CE, Potter, JF, Stergiou, N. (2009). Task difficulty affects gait variability during dual task in healthy young and older adults. *Proceedings of the 19th IAGG World Congress of Gerontology and Geriatrics*. Paris, France.

37. Decker, LM, Rodríguez-Aranda, CE, **Myers, SA**, Stergiou, N. (2009). Verbal fluency tasks affect gait variability and symmetry. *Proceedings of the 14th Annual Meeting of the Gait and Clinical Movement Analysis Society*. Denver, CO, USA.
38. Decker, LM, Rodríguez-Aranda, CE, **Myers, SA**, Stergiou, N. (2008). Cognitive performance on high-demanding tasks affects gait variability in healthy young adults. *Proceedings of the Society for Neuroscience's 38th Annual Meeting*. Washington, DC, USA.
39. Fosnaugh, E, Stergiou, N, Decker, LM, **Myers, S.A.** (2010). Dual tasking indicates elderly inability to delegate locomotion to lower levels of control. *Proceedings of the 2nd Annual UNO Student Research and Creative Activity Fair*. Omaha, Nebraska, USA.
40. Hamilton, N, Kokkoni, E, Haworth, J, **Myers, SA**, Stergiou, N. (2011). Discriminant function analysis to predict the time course of sitting development in infants. *Proceedings of the Midlands Neuroscience Conference*, Omaha, Nebraska, USA.
41. Hasenkamp, R, Wurdeman, SR, **Myers, SA.** (2012) The relationship between ambulatory activity patterns and kinematic variability. *Proceedings of the 36th Annual Meeting of the American Society of Biomechanics*, Gainesville, FL, USA.
42. Huben, NB, Korgan, AC, **Myers, SA**, Johanning, JM, Pipinos, II, Stergiou, N. (2011). Differences in gait improvements following surgery in slow and fast PAD patients. *Proceedings of the 16th Annual Gait and Clinical Movement Analysis Society Meeting*. Bethesda, MD, USA.
43. Huben, NB, Korgan, AC, **Myers, SA**, Johanning, JM, Pipinos, II, Stergiou, N. (2011). Differences in gait improvements following surgery in slow and fast PAD Patients. *Proceedings of the 3rd Annual UNO Student Research and Creative Activity Fair*. Omaha, Nebraska, USA.
44. Huben, NB, Yentes, JM, Koutakis, P, **Myers, SA**, Johanning, HM, Pipinos, II, Stergiou, N. (2011). Gait impairment in PAD patients is independent of level of disease. *Proceedings of the 3rd Annual UNO Student Research and Creative Activity Fair*. Omaha, Nebraska, USA.
45. Huben, NB, Yentes, JY, Koutakis, P, **Myers, SA**, Johanning, JM, Pipinos, II, Stergiou, N. (2010). Gait impairment in PAD patients is independent of level of disease. *Proceedings of the 7th Annual UNMC SURP Research Colloquium*. Omaha, Nebraska, USA.
46. Huben, NB, Yentes, JM, Koutakis, P, **Myers, SA**, Johanning, JM, Pipinos, II, Stergiou, N. (2010). Gait impairment in peripheral arterial disease is independent of level of disease. *Proceedings of the 15th Annual Gait and Clinical Movement Analysis Society Conference*. Miami, FL, USA.
47. Huben, NB, **Myers, SA**, Stergiou, N, Pipinos, II, Johanning, JM. (2010). Basic biomechanical parameters in patients with peripheral arterial disease: A critical review of the literature. *Proceedings of the 2nd Annual UNO Student Research and Creative Activity Fair*. Omaha, Nebraska, USA.
48. Huben, NB, Yentes, JM, Koutakis, P, **Myers, SA**, Johanning, JM, Pipinos, II, Stergiou, N. (2010). Gait impairment in PAD patients is independent of level of disease. *Proceedings of the 7th Annual UNMC SURP Research Colloquium*. Omaha, Nebraska, USA.
49. Huben, N, Koutakis, P, Johanning, JM, **Myers, SA**, Stergiou, N. (2009). Abnormal joint powers before and after the onset of claudication symptoms. *Proceedings of the Nebraska Research and Innovation Conference*. Omaha, NE, USA.
50. Huisinga, JM, **Myers, SA**, Johanning, JM, Pipinos, II, Chen, SJ. (2006). The effect of pharmacologic therapy on kinetic gait parameters in patients with peripheral arterial disease. *Proceedings of the 30th Annual Meeting of the American Society of Biomechanics*. Blacksburg, VA, USA.
51. Kaipust, JP, Yentes, JM, Koutakis, P, **Myers, SA**, Stergiou, N. (2009). Unilateral intermittent claudication affects joint kinematics during gait. *Proceedings of the University of Nebraska at Omaha Centennial Celebration of Student Research and Creative Activity*. Omaha, NE, USA.

52. Koutakis, P., **Myers, SA**, Pipinos, II, Johanning, JM, Stergiou, N. (2010). Joint powers are affected by age and peripheral arterial disease. *Proceedings of the 34th Annual Meeting of the American Society of Biomechanics*. Providence, RI, USA.
53. Koutakis, P, **Myers, SA**, Johanning, JM, Pipinos, II, Stergiou, N. (2008). Bilateral intermittent claudication affects joint powers during gait. *Proceedings of the 32nd Annual Meeting of the American Society of Biomechanics*. AnnArbor, MI, USA.
54. McGrath, D, Wurdeman, SR, Yentes, JM, Hunt, N, **Myers, SA**, Stergiou, N. (2012) Metabolic cost of maintaining balance during a perturbed gait task is related to gait variability. *Proceedings of the 36th Annual Meeting of the American Society of Biomechanics*, Gainesville, FL, USA.
55. Momcilovic, M, **Myers, SA**, Stergiou, N. (2010). Performance of dichotic listening task under various attentional instructions have different effects on functional gait asymmetry in young adults. *Proceedings of the 2nd Annual UNO Student Research and Creative Activity Fair*. Omaha, Nebraska, USA.
56. Momcilovic, M, Decker, LM, **Myers, SA**, Rodríguez-Aranda, CE, Potter, JF, Stergiou, N. (2009). Performance of dichotic listening task under various attentional instructions have differential effects on functional gait asymmetry in young adults. *Proceedings of the Society for Neuroscience's 39th Annual Meeting*. Chicago, IL, USA.
57. **Myers, SA**, Johanning, JM, Pipinos, II, Stergiou, N. (2011). Differences in gait variability caused by peripheral arterial disease persist after accounting for the effect of reduced blood flow. *Proceedings of the Society for Neuroscience's 41st Annual Meeting*. Washington, DC, USA.
58. **Myers, SA**, Johanning, JM, Pipinos, II, Stergiou, N. (2010). Vascular occlusion affects gait variability patterns of healthy younger and older individuals. *Proceedings of the 34th Annual Meeting of the American Society of Biomechanics*. Providence, RI, USA.
59. **Myers, SA**, Decker, LM, Stergiou, N. (2010). The associations between cognitive and physical function during dual task paradigms. *Proceedings of the 130th Annual Meeting of the Nebraska Academy of Sciences*. Lincoln, NE, USA.
60. **Myers, SA**, Decker, LM, Rodríguez-Aranda, CE, Potter, JF, Stergiou, N. (2010). Gait variability can predict cognitive performance on the semantic fluency test. *Proceedings of the 2nd Annual University of Nebraska at Omaha Student Research and Creative Activity Fair*. Omaha, NE, USA.
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64. **Myers, SA**, Pipinos, II, Johanning, JM, Stergiou, N. (2008). Induced lower extremity vascular occlusion affects gait variability. *Proceedings of the 32nd Annual Meeting of the American Society of Biomechanics*. AnnArbor, MI, USA.
65. **Myers, SA**, Stergiou, N, Johanning, JM, Pipinos, II, Chen, SJ, Blanke, D. (2008). Nonlinear measures indicate gait variability is altered by peripheral arterial disease. *Proceedings of the 2008 North American Society for the Psychology of Sport and Physical Activity Annual conference*. Niagara Falls, ON Canada.
66. **Myers, SA**, Stergiou, N, Pipinos, II, Johanning, JM, and Kochi, N. (2007). Peripheral arterial disease causes alterations in the variability of gait patterns. *Proceedings of the 31st Annual Meeting of the American Society of Biomechanics*. Stanford, CA, USA.

67. **Myers, SA**, Huisinga, JM, Johanning, JM, Pipinos, II and Chen, SJ. (2006). Ground reaction forces in patients with unilateral peripheral arterial disease. *Proceedings of the 30th Annual Meeting of the American Society of Biomechanics*. Blacksburg, VA, USA.
68. Rand, T, Wurdeman, SR, Johanning, JM, Pipinos, II, **Myers, SA**. (2012) Patients with peripheral arterial disease exhibit greater toe clearance than healthy controls. *Proceedings of the 36th Annual Meeting of the American Society of Biomechanics*, Gainesville, FL, USA.
69. Rand, T, Yentes, JM, Johanning, JM, Pipinos, II, **Myers, SA**. (2012) Fear of falling is related to walking impairment in peripheral arterial disease. *Proceedings of the Gait & Clinical Movement Analysis Society 2012 Annual Conference*, Grand Rapids, MI, USA.
70. Rodríguez-Aranda, CE, Decker, LM, **Myers, SA**, Stergiou, N. (2008). Interplay between gait and attention: The unfavorable effects of walking on learning and cognitive performance of high demanding tasks. *Proceedings of the Society for Neuroscience's 38th Annual Meeting*. Washington, DC, USA.
71. Vallabhajosula, S, Tan, C, Davidson, A, Mukherjee, M, Siu, K-C, Yentes, JM, McGrath, D, **Myers, SA**. (2012) Kinematics and kinetics of stair ascent while dual-tasking. *Proceedings of the 36th Annual Meeting of the American Society of Biomechanics*, Gainesville, FL, USA.
72. Wurdeman, SR, **Myers, SA**, Jacobsen, AL, Stergiou, N. (2012) Transtibial amputee prosthesis preference is related to the change in stride-to-stride fluctuations. For presentation at the *Annual Assembly for the American Academy of Physical Medicine and Rehabilitation*. Atlanta, Georgia.
73. Wurdeman, S, Yentes JM, **Myers, SA**, Jacobsen, A, Stergiou, N. (2012) Both limbs in unilateral transtibial amputees display increased risk for tripping. *Proceedings of the 36th Annual Meeting of the American Society of Biomechanics*, Gainesville, FL, USA.
74. Wurdeman, SR, **Myers, SA**, Stergiou, N. (2012) Transtibial amputee joint motion has larger Lyapunov Exponents. *Proceedings of the 36th Annual Meeting of the American Society of Biomechanics*, Gainesville, FL, USA.
75. Wurdeman, SR, **Myers, SA**, Huben, NB, Stergiou, N. (2011). Direction of gait affects attractor divergence. *Proceedings of the 21st Annual Meeting of the Society for Chaos Theory in Psychology and Life Sciences*. Orange, California, USA.
76. Wurdeman, SR, **Myers, SA**, Stergiou N. Design of an ankle exoskeleton for calf muscle weakness. *Proceedings of the 2012 Nebraska Academy of Sciences Annual Meeting*. Lincoln, Nebraska, USA.
77. Yentes, JM, Huisinga, JM, **Myers, SA**, Pipinos, II, Johanning, JM, Stergiou, N. (2010). Pharmacological treatment for intermittent claudication does not significantly affect gait impairments during claudication pain. *Proceedings of the 15th Annual Gait and Clinical Movement Analysis Society Conference*. Miami, FL, USA.
78. Yentes, JM, Decker, LM, **Myers, SA**, Rodríguez-Aranda, CE, Potter, JF, Stergiou, N. (2010). Aging and dual task alter amount and structure of lower limb kinematic variability during gait. *Proceedings of the 2nd Annual UNO Student Research and Creative Activity Fair*. Omaha, Nebraska, USA.
79. Yentes, JM, Decker, LM, **Myers, SA**, Rodríguez-Aranda, CE, Potter, JF, Stergiou, N. (2009). Aging and dual task alter amount and structure of lower limb kinematic variability during gait. *Proceedings of the University of Nebraska at Omaha Centennial Celebration of Student Research and Creative Activity*. Omaha, NE, USA.
80. Yentes, JM, Decker, LM, **Myers, SA**, Rodríguez-Aranda, CE, Potter, JF, Stergiou, N. (2009). Aging and dual task alter amount and structure of lower limb kinematic variability during gait. *Proceedings of the Society for Neuroscience's 39th Annual Meeting*. Chicago, IL, USA.

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INSTRUMENTATION COMPETENCIES

Motion Capture Systems

Motion Analysis Corporation 3D Video/Digital Data Collection

Peak Performance Technologies, Inc. Video/Analog Data Collection Workstation

Northen Digital Incorporated Optotrak Wireless Motion Capture System

Redlake High-speed Video Capture Systems 2.0 and 3.0

EvaRT Motion Capture Software

Orthotrak Data Analysis System

Neurocom Balancemaster Equitest

Kistler and AMTI Force Platforms (Accusway force platform, AccuGait forceplate instrumented runway)

Kistler dual belt instrumented treadmill

Forceplate instrumented staircase with AMTI plates

Delsys EMG wireless Myomonitor, 16 leads

Biodex Isokinetic Muscular Function Testing (Systems 2 and 3)

JC Labs High-speed cameras

Panasonic JVC CL-350 Cameras

LiteGait Bodyweight support system

Leighton Flexometer

Goniometry

Skin Fold Caliper measurements

Underwater Weighing

Graded Exercise Testing

InSpectra StO₂ Tissue Oxygenation Monitor

MicroLoop Spirometer

Cosmed K4b² Portable Metabolic Monitor

COMPUTER COMPETENCIES

Microsoft Office Package

C++

Matlab

Maple

SPSS statistical package

Minitab statistical package

E-Prime

Computerized Speech Lab

CERTIFICATIONS

2005-present Collaborative Institutional Training initiative training, University of Nebraska Medical Center

2005-present Collaborative Institutional Training initiative training, Department of Veterans' Affairs

2005-present CPR/AED Adult

RELEVANT COURSEWORK

Graduate GPA: 4.0

Motor Control/Biomechanics

PE 4630 Biomechanics

PE 8450 Advanced Biomechanics

PE 8400 Motor Learning and Control

Mathematics

MATH 1950 Calculus I

MATH 1960 Calculus II

MATH 1970 Calculus III

MATH 3350 Differential Equations

MATH 4050 Linear Algebra

MATH 8400 Dynamical Systems & Chaos

MATH 8766 Topics in Modeling: Time Series Analysis

MATH 9110 Advanced Topics in Mathematics: Nonlinear Time Series Analysis

Physics

PHYS 1154 General Physics

Statistics/Research Design

HPER 8030 Research in HPER

PE 8040 Applied Statistics in Physical Education

BIOS 806 Biostatistics I

BIOS 808 Biostatistics II

Computers

CIST 1400 Intro to Computer Programming

CSCI 1620 Intro to Computer Science

HPER 8000 Programming Using Matlab

CSCI 8325 Data Structures

Engineering

EMEC 2230 Engineering Statics

EMEC 3730 Engineering Dynamics

EMEC 3250 Mechanics of Elastic Bodies

Exercise Science

PE 2880 Basic Anatomy and Physiology

PE 4930 Measurement and Evaluation of Physical Education

PE 4850 Cardiac Rehabilitation Principles and Practice

PE 4010 Laboratory Methods in Exercise Science

PE 4940 Physiology of Exercise

PE 8950 Advanced Exercise Physiology

Psychology

PSYC 1010 Intro to Psychology

PSYC 4630 Organizational Psychology

PSYC 9070 Cognitive Psychology

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