

Jenevieve L Roper, Ph.D., CSCS, CISSN, SFN
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Education:

PhD, Physical Education, Sports and Exercise Science, University of New Mexico, Albuquerque, NM, 2015

Concentration: Exercise Science

Dissertation: The Effects of Gait Retraining in Runners With Patellofemoral Pain

M.S., Kinesiology, University of Nevada, Las Vegas, 2010

Concentration: Biomechanics

Professional Paper: Factors Influencing Knee Valgus in Female Athletes: A Review of Literature

B.S., Exercise Science, University of New Mexico, Albuquerque, NM, 2009

Experience:

Assistant Professor of Health and Human Sciences, 2017 to present
Loyola Marymount University

Courses:

HHSC 225 Human Anatomy and Physiology

HHSC 226 Human Anatomy and Physiology Lab

HHSC 380 Kinesiology

HHSC 476 Exercise Physiology Lab

HHSC 480 Biomechanics

HHSC 481 Biomechanics Lab

Assistant Professor of Kinesiology, 2015 to 2017
California State University, San Bernardino

Courses:

KINE 360 Physical Activity & Aging

KINE 382 Nutrition for Health, Fitness and Sport

KINE 471 Exercise Science Program Management

KINE 480 Biomechanics Lecture and Laboratory

KINE 485 EKG

Teaching Assistant, 2015
University of New Mexico

Courses: PEP 476 Exercise Testing and Interpretation, PEP 478 Sports Physiology

Part-time Lecturer, 2014
University of Nevada, Las Vegas

Course: KIN 346 Biomechanics

Graduate Assistant, 2012-2015
University of New Mexico

Teaching Assistant, 2010
University of Nevada, Las Vegas
Course: KIN 176 Physical Activity and Health

Research Assistant, 2010
University of Nevada, Las Vegas

Guest Lectures:

Gait Analysis
Spring 2018
MECH 598/698 Intro to Biomedical Engineering

Bioelectrical Impedance Analysis
Fall 2014
PEP 532 Body Composition

Neuromuscular Physiology
Fall 2014
PEP 277 Kinesiology

Electromyography
Fall 2012
PEP 530 Lab Procedures

Neuromuscular Physiology
Fall 2012
PEP 277 Kinesiology

Presentations:

Aquino J.A, Isidoro N, Gallindo P, & **Roper J.L.** (2017). Comparison of smart apparel muscle activity measurements to surface electromyography during exercise. Poster presentation at the National Strength and Conditioning Association national conference. Las Vegas, Nevada. Journal of Strength and Conditioning. **Student awarded the Undergraduate Student Outstanding Presentation Award**

Wimbish, J., Cooper, CN., Hughes, P., Reid, M., Vazquez, A., Aquino, J., **Roper, J.**, Dabbs NC. (2017). The Effects of Motorized vs. Non-motorized Treadmill on Voluntary Oxygen Consumption, Heart Rate, and RPE in Collegiate Cross-Country Females: A Preliminary Analysis. National Strength and Conditioning Association national conference. Las Vegas, Nevada. Journal of Strength and Conditioning.

Roper J.L. (2017). The Fundamentals to Fueling Athletes: Basic nutrition strategies to support and improve athletic performance. Symposium presentation at Practical Applications in Sports Medicine. Palm Springs, California.

Aquino J.A, Isidoro N, Gallindo P, & **Roper J.L.** (2017). Comparison of smart apparel muscle activity measurements to surface electromyography during exercise. Student oral presentation at the California State University Statewide Student Research Competition. San Luis Obispo, California.

Aquino J.A, Isidoro N, Gallindo P, & **Roper J.L.** (2016). Comparison of smart apparel muscle activity measurements to surface electromyography during exercise. Poster presentation at the American College of Sports Medicine southwest regional conference. Costa Mesa, California.

Roper J.L., Seeley M, and Freedman-Silvernail J. (2016). Altered running mechanics: common causes, consequences, and fixes. Symposium presentation at the Southwest American College of Sports Medicine regional conference. Costa Mesa, California.

Roper J.L. et al. (2016). The effects of gait retraining on oxygen consumption and carbohydrate metabolism. Thematic poster presentation at the annual American College of Sports Medicine national conference. Boston, Massachusetts.

Roper J.L. et al. (2015). The effects of changing footstrike pattern on running economy. Poster Presentation at the Southwest American College of Sports Medicine regional conference in Costa Mesa, California.

Harding E.M., **Roper J.L.** et al. (2015). The effects of gait retraining in runners with patellofemoral pain. Poster presentation at the Southwest American College of Sports Medicine regional conference in Costa Mesa, California.

Roper J.L. et al. (2013). Comparison of foot strike patterns in habitually shod runners: Analysis of preliminary data. Poster presentation at the Southwest American College of Sports Medicine regional conference in Newport Beach, California.

Roper, J. L. et al. (2013). Social Factors Affecting Obesity Rates in African American Women. Poster presentation at the University of New Mexico, College of Education Graduate Student Colloquium in Albuquerque, New Mexico.

Roper, J. L. et al. (2012). Reliability of BodPod measures using Bland and Altman analysis. Poster presentation at the Southwest American College of Sports Medicine regional conference in Newport Beach, California.

Roper, J. L. et al. (2010). Lower Extremity Muscle Activity while Walking in Shape-Up Shoes. Poster presentation at the American College of Sports Medicine national conference in Denver, Colorado.

Peer Reviewed Publications:

1. Aquino J.A. & **Roper J.L.** (2018). Intraindividual variability and validity in smart apparel muscle activity measurements during exercise in men. *International Journal of Exercise Science*. 11(7):516-525.
2. **Roper J.L.**, Doerfler D., Kravitz, L., Dufek J.S., and Mermier C.M. (2017) Gait retraining from rearfoot strike to forefoot strike does not change running economy. *International Journal of Sports Medicine*. 38(14):1076-1082.
3. **Roper, J. L.**, Doerfler, D, Mermier, C. M. & Dufek, J. S. (2016). Foot strike while running and patellofemoral pain. *Lower Extremity Review*. 8(8):37-40.
4. **Roper, J. L.**, Harding, E. M., Doerfler, D., Dexter, J. G., Kravitz, L., Dufek, J. S., & Mermier, C. M. (2016). The effects of gait retraining in runners with patellofemoral pain: a randomized trial. *Clinical Biomechanics*. 35:14-22.
5. Gibson, A. L., **Roper, J. L.** & Mermier C. M. (2016). Intra-individual variability in test-retest air displacement plethysmography measurements of men and women. *International Journal of Sport Nutrition and Exercise Metabolism*. 26(5):404-412.
6. **Roper, J.**, Dufek, J., & Mermier, C. (2014). Gait Retraining with Foot Strike Patterns as Management for Patellofemoral Pain Syndrome: A Brief Review. *Int J Sports Sciences*. 4(5), 181-187
7. **Roper, J. L.** & Kravitz, L. (2013). Helping the Chronically Short of Breath. *IDEA Fitness Journal*. 10(6), 20-22.
8. **Roper, J. L.** & Dufek, J. S. (2013). Exploring the Gender Disparity in Knee Valgus: Implications for ACL injuries and prevention strategies. *Wulfenia Journal*. 20(5)
9. Santo, A. S., **J. L. Roper**, J. S. Dufek, and J. A. Mercer. (2012). Rocker-bottom, profile-type shoes do not increase lower extremity muscle activity or energy cost of walking. *Journal of Strength and Conditioning*. 26(9), 2426-2431.

Manuscripts In Review

1. **Roper J.L.**, Harry J.R. & Dufek J.S. Frontal plane lower extremity kinematics during a loaded and unloaded squat in individuals with and without patellofemoral pain. *Journal of Strength and Conditioning Research*.

Peer Reviewed Published Abstracts:

1. **Roper J.L.**, Harding E.M., Doerfler D., Dexter J.G., Kravitz L., Dufek J.S. & Mermier C.M. (2016). The effects of gait retraining on oxygen consumption and carbohydrate metabolism. *Med Sci Sports Exerc*, 48(5) Supplement.
2. **Roper, J.**, Dexter, J., & Kravitz, L. (2014, May). Comparison of Foot Strike Patterns in Habitually Shod Runners: Analysis of Preliminary Data. *Med Sci Sports Exerc*, 46(5),

415.

3. **Roper, J.**, DeMattei, M., Santo, A., Dufek, J., & Mercer, J. (2011). Lower Extremity Muscle Activity While Walking in Shape-Up Shoes: 1465: Board# 201 June 1 11: 00 AM-12: 30 PM. *Medicine & Science in Sports & Exercise*, 43(5), 314.

Grants, Fellowships, and Awards:

Arthritis National Research Foundation Grant (Arthritis National Research Foundation, 2018), The effects of gait retraining on the risk and progression of knee osteoarthritis, \$76,109 (*pending funding decision*), Role: PI

Young Investigator Grant (National Strength and Conditioning Association Foundation, 2017), The effects of gait retraining in runners with MTSS and stress fractures, \$7,440 (*not awarded*), Role: PI

Research Endowment (American College of Sports Medicine, 2017), The effects of gait retraining in runners with a history of stress fractures and shin splints, \$6,200 (*not awarded*), Role: PI

NIHR21 (National Institute of Health, 2016), The Use of Smart Fitness Apparel as a Weight Loss Intervention, \$275,000 (*not awarded*), Role: PI

Summer Course Redesign Grant (Teaching Resource Center, California State University, San Bernardino, 2016), \$4,000

Mini-Grant (Office of Academic Research, California State University, San Bernardino, 2016), The Validity and Reliability of Smart Apparel During Exercise, \$4,500, Role: PI

Professional Development Grant (Graduate Professional and Student Association, University of New Mexico, 2015), \$500

Student Conference Award Program (Career Services, University of New Mexico, 2015), \$600

RAC Grant (Research Allocations Committee, University of New Mexico, 2014), \$4,000, Role: Co-investigator

New Mexico Research Grant (Graduate Professional and Student Association, University of New Mexico, 2014), \$3,000, Role: PI

Graduate Student Excellence Award, College of Education, University of New Mexico, 2014-2015, \$7,000

HESS PB Grant (University of New Mexico, Department of Health, Exercise and Sports Science, 2014), \$277

RPT Grant (University of New Mexico Research Project and Travel Grant, 2013), \$1,000

RPT Grant (University of New Mexico Research Project and Travel Grant, 2012), \$500

Services to the University/School/Department:

Office of Student Research Awards Committee, California State University, San Bernardino, 2016- 2017

Women's Soccer Sports Nutrition Workshop, California State University, San Bernardino, 2016

Part-time/Adjunct faculty classroom visitation/evaluation, Department of Kinesiology, California State University, San Bernardino, 2016

Center of Aging Executive Board, California State University, San Bernardino, 2016- 2017

CNS Equipment Systems Specialist Search Committee, California State University, San Bernardino, 2016

Department of Kinesiology Chair Search Committee, California State University, San Bernardino, 2016

Curricular and Career advisement, Department of Kinesiology, California State University, San Bernardino, 2015-2017

Graduate Student Representative, Department of Health, Exercise and Sports Sciences Faculty Search Committee, University of New Mexico, 2014-2015

Other Service:

Reviewer, Medicine and Science in Sports and Exercise, 2017

Reviewer, International Journal of Sports Medicine, 2017

External Examiner, PhD Thesis, University of the Punjab
"Biomechanical Analysis for Evaluating Performance of Competitive Swimmers in Pakistan"

Reviewer, Journal of Sport and Health Science, 2017

Reviewer, International Journal of Sports and Exercise Medicine, 2017

Reviewer, Clinical Biomechanics, 2017

Contributing Writer, International Sports Science Association Blog, Online 2016- Present

Editorial Board, Gavin Journal of Orthopedic Research and Therapy, 2016- 2017

Reviewer, Gavin Journal of Orthopedic Research and Therapy, 2016

Reviewer, Journal of Sports Medicine and Physical Fitness, 2014

Contributing Writer, Inside Fitness Magazine, Print and Online, 2014- Present

Contributing Writer, Iron Man Magazine, 2015- 2017

Professional Affiliations:

American College of Sports Medicine, Southwest Chapter

National Strength and Conditioning Association

International Society of Sports Nutrition

Licenses/Certifications:

Specialist in Fitness Nutrition, ISSA

Certified Sports Nutritionist, ISSN

Certified Strength and Conditioning Specialist, NSCA

American Red Cross Adult CPR/AED certified

Research Skills:

Development of experimental protocols

Extensive knowledge of SPSS statistical program.

Knowledge and use of Matlab for data analysis.

Knowledge and use of electromyography, electrogoniometry, motion analysis systems, electrocardiograms, body composition, maximal and sub-maximal exercise stress tests, blood pressure, flexibility, and gait analysis

Skills and Qualifications:

Assessment and/or measurement and interpretation of the following:

10. Electrocardiograms
11. Maximal exercise stress tests
12. Submaximal exercise stress tests
13. Exercise Prescription
14. Body Composition: skinfolds, hydrostatic weighing, bioelectrical impedance
15. Blood Pressure
16. Flexibility

17. Gait
18. Electromyography
19. Electrogoniometers
20. Force platforms
21. Center of pressure
22. Motion capture and analysis systems

Computer Skills

Microsoft Word, Power Point, Excel, Adobe Illustrator, SPSS, Prism, Matlab