

PAUL N. WHITEHEAD, PHD, CSCS*D

The University of Alabama in Huntsville
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EDUCATION

- Doctor of Philosophy**, Rehabilitation Science, University of Pittsburgh, Pittsburgh, PA 2017
Concentration: **Sports Medicine and Nutrition**
Dissertation: Comparing Measures of Ankle Proprioception, Strength, and Postural Stability in Soccer Players
With and Without Chronic Ankle Instability as a Result of Non-Contact Lateral Ankle Sprains
Advisor: Takashi Nagai, PhD, CSCS
- Master of Science**, Health and Sport Science, The University of Memphis, Memphis, TN 2012
Concentration: **Exercise and Sport Science**
Thesis: Possible New Modalities for the Navy Physical Readiness Test
Advisor: Brian K. Schilling, PhD, CSCS, FNCSA
- Bachelor of Science**, Journalism and Electronic Media, University of Tennessee, Knoxville, TN 2007
Concentration: Print Journalism
Minor: Business Administration

APPOINTMENTS AND POSITIONS

- Assistant Professor**, The University of Alabama in Huntsville 2017 – Present
Huntsville, AL
Instruct courses, mentor students, and conduct research in the Department of Kinesiology as a tenure-track faculty member. Additional responsibilities include service to the University and the Huntsville community. Research and education focus is on the Biomechanics portion of the Department, which is in the College of Education.
- Sport Science Coordinator**, Pittsburgh Penguins 2016 – 2017
Pittsburgh, PA
Worked alongside the Director of Sport Science and Performance to monitor player activity before, during, and after practices as a means of prescribing alternative approaches to diet, exercise, sleep, and game preparation. Daily activities included interactions with players, coaches, and staff to learn the dynamic of working with a professional organization that is at the championship level.
- Graduate Student Researcher**, Neuromuscular Research Laboratory 2012 – 2016
University of Pittsburgh, Pittsburgh, PA
Performed biomechanical, neuromuscular, strength, flexibility, and physiological assessments of athletes, soldiers, and operators; and managed physiological human subject research activities of five laboratories. Independent research related to lower extremity injury prevention resulted in numerous presentations, publications in review, and my dissertation project.
- Graduate Assistant/Lab Coordinator**, Exercise Neuromechanics Laboratory 2010 – 2012
University of Memphis, Memphis, TN
Organized data collection sessions and conducted research studies related to dietary supplements, strength and conditioning, and training in elderly populations. Resulted in multiple abstracts and publications, three of which were first author contributions.

Student Intern, Strength and Conditioning 2009 –2010
University of Memphis, Memphis, TN
Assisted with coaching and coordinating strength and conditioning sessions for various athletic teams at the University of Memphis, including football, baseball, softball, and golf.

PROFESSIONAL CERTIFICATIONS

Certified Strength and Conditioning Specialist (CSCS) – National Strength and Conditioning Association 2010 – Present
CSCS with Distinction (CSCS*D) – National Strength and Conditioning Association 2021 – Present
CPR/AED Certified for the Professional Rescuer and Healthcare Provider – American Red Cross 2010 – Present
Certified Level 4 Official – USA Hockey 2014 – Present
Certified Level 4 Coach – USA Hockey 2010 – Present

PROFESSIONAL AFFILIATIONS

American College of Sports Medicine (ACSM) 2014 – Present
Southeast Chapter of the American College of Sports Medicine (SEACSM) 2018 – Present
Mid-Atlantic Regional Chapter of the ACSM 2014 – 2018
National Strength and Conditioning Association 2010 – Present

HONORS

Scholarship Enhancement Travel Award, The University of Alabama in Huntsville 2019
Scholarship Enhancement Travel Award, The University of Alabama in Huntsville 2018
SHRS Research Development Grant, University of Pittsburgh 2016
Freddie H. Fu, MD Dissertation Research Award, University of Pittsburgh 2015
Mid-Atlantic Doctoral Student Investigator Award, American College of Sports Medicine 2014
Freddie H. Fu, MD Graduate Research Award, University of Pittsburgh 2014
Freddie H. Fu, MD Graduate Research Award, University of Pittsburgh 2013
Meritorious Achievement, Skeletal Muscle Mechanics and Physiology, University of Memphis 2012
Senior Journalist of the Year, University of Tennessee 2007
Scripps Howard Foundation Internship, Scripps Howard Foundation 2007

TEACHING EXPERIENCE

Assistant Professor, Exercise & Sport Biomechanics 2019 – Present
The University of Alabama in Huntsville
Advanced understanding of biomechanical conditions of human movement in order to prescribe appropriate interventions for optimized application to rehabilitation and sports performance.

Assistant Professor, Anatomic Kinesiology 2018 – Present
The University of Alabama in Huntsville
Focused primarily on the functional anatomy of the human body to provide foundational knowledge pertaining to human movement and biomechanics.

- Assistant Professor**, Research in Exercise Science I and II 2018 – Present
 The University of Alabama in Huntsville
 Instructed senior-level students through the capstone courses that provide the opportunity for students to develop a research question, formulate a hypothesis, and propose methodology prior to conducting the research, analyzing the results, and presenting the findings.
- Assistant Professor**, Measurement and Evaluation in Physical Activity 2017 – Present
 The University of Alabama in Huntsville
 Taught 30 undergraduate students the basics of statistical procedures, principles of reliability and validity, and basic techniques involved in human performance research.
- Assistant Professor**, Strength Training and Conditioning Spring 2018
 The University of Alabama in Huntsville
 Taught undergraduate students the principles and standards associated with strength and conditioning, while also providing introduction to basic techniques involved in human performance research
- Assistant Professor**, Special Topics: Biomechanics Fall 2017
 The University of Alabama in Huntsville
 Introduced concepts of biomechanics in addition to detailed instruction of anatomic kinesiology.
- Assistant Professor**, Exercise Physiology 2017 – 2018
 The University of Alabama in Huntsville
 Taught an introductory course of exercise physiology to establish the foundation of knowledge necessary for students to be successful as Kinesiology majors
- Instructor**, Anatomical Basis of Sports Medicine and Nutrition Spring 2016
 University of Pittsburgh, Pittsburgh, PA
 Graduate course in the School of Health & Rehabilitation Sciences
- Teaching Assistant**, Exercise Physiology Lab Spring 2014
 University of Pittsburgh, Pittsburgh, PA
 Instructed a weekly lab on physiology data collection and methods related to VO₂max testing for aerobic capacity, Wingate testing for anaerobic power, and body composition analysis
- Guest Lecturer**, Dietary Supplements for Health and Performance 2013 – 2015
 University of Pittsburgh, Pittsburgh, PA
 Lectured on my experiences working with dietary supplements and conducting research studies related to the investigation of the effects of ergogenic aids.
- Guest Lecturer**, Research Seminar in Sports Medicine 2013 – 2015
 University of Pittsburgh, Pittsburgh, PA
 Lectured on ideal research practices for graduate students, as well as discussed independent projects of my own.
- Guest Lecturer**, Laboratory Techniques in Sports Medicine 2013 – 2014
 University of Pittsburgh, Pittsburgh, PA
 Lectured on various aspects of laboratory data collection including physiology, biomechanical, ultrasound, and strength testing
- Instructor**, Free Weights and Machines 2011 – 2012
 The University of Memphis, Memphis, TN
 Undergraduate course in the Department of Exercise and Sport Science

Instructor, Exercise Testing Interpretation Lab 2011 – 2012
The University of Memphis, Memphis, TN
Graduate and Undergraduate course in the Department of Exercise and Sport Science

Guest Lecturer, Biomechanics 2011 – 2012
The University of Memphis, Memphis, TN
Assisted in lectures for undergraduate students in Exercise and Sport Science

MENTORSHIP ACTIVITIES

Connor Merkley, The University of Alabama in Huntsville 2021 – Present
Exercise Science Internship
Project Title: Comparison of lower extremity strength values in male collegiate hockey and soccer players

Kinta Schott, The University of Alabama in Huntsville 2019 – 2020
Research and Creative Experience for Undergraduates (RCEU) Summer Program
Project Title: Sport Science Metrics of Outdoor Sports Using Wearable Technology

Shreyas Lakshmipuram Raghu, The University of Alabama in Huntsville 2017 – 2020
Master of Science in Engineering, Thesis Committee
Project Title: Kinematic Analysis of Gain in an Aquatic Treadmill Using Land Based Motion Capture Cameras

Noah Pring, The University of Alabama in Huntsville 2018 – 2020
Research and Creative Experience for Undergraduates (RCEU) Summer Program
Project Title: The effect of shin-torso alignment and biomechanical positioning on muscle activity of the lower extremity in hockey players

Joseph Schmitz, University of Pittsburgh, Rehabilitation Science 2015 – 2017
Bachelor of Philosophy PhD Student Advisor and Committee Member
Thesis: Comparison and Correlation of Dynamic Postural Stability Indices Obtained During Different Dynamic Landing Tasks and Footwear Conditions

Michael Tammaro, University of Pittsburgh, Rehabilitation Science Spring 2016
Internship Advisor

Simon Gomez, University of Pittsburgh, Master of Athletic Training 2014 – 2016
Scholarly Paper PhD Student Advisor

Clint Hazen, University of Pittsburgh, Master of Sports Medicine and Nutrition 2012 – 2014
Scholarly Paper PhD Student Advisor

COMMUNITY SERVICE ACTIVITIES

Level 4 Coach, USA Hockey 2010 – Present

Level 4 Official, USA Hockey, Southeastern District 2014 – Present

University of Tennessee Alumni Association, Board of Directors 2013 – 2017

Vice President, Co-Founder, University of Memphis Club Hockey 2011 – 2012

Assistant Coach, University of Mississippi Club Hockey 2010

League Treasurer, Volunteer Coach, Memphis Youth Hockey League 2009 – 2010

PROFESSIONAL SERVICES

Departmental Liaison to the Dean , Department of Kinesiology College of Education, The University of Alabama in Huntsville	2020 – Present
Committee Chair , Undergraduate Curriculum Committee, Faculty Senate The University of Alabama in Huntsville	2019 – Present
College Representative , Faculty Senate The University of Alabama in Huntsville	2018 – Present
Faculty President , Phi Kappa Phi Honor Society The University of Alabama in Huntsville	2018 – 2020
Grant Reviewer , NSCA Foundation National Strength and Conditioning Association	2020 – Present
Manuscript Reviewer , Journal of Sport Behavior	2021 – Present
Healthcare	2020 – Present
International Journal of Environmental Research and Public Health	2020 – Present
Sport Sciences for Health	2020 – Present
Journal of Science and Sport in Exercise	2020 – Present
Medicina	2020 – Present
International Journal of Exercise Science	2020 – Present
Nitric Oxide	2020 – Present
The Open Sports Sciences Journal	2020 – Present
Sports Biomechanics	2019 – Present
Journal of Visual Impairment and Blindness	2019 – Present
Journal of Sport Sciences	2018 – Present
Journal of Science and Medicine in Sport	2017 – Present
Journal of Strength and Conditioning Research	2016 – Present
Medicine and Science in Sports and Exercise	2015 – Present
Social Committee , Board of Directors University of Tennessee Alumni Association – Pittsburgh Chapter	2013 – 2017
Research/Education Committee , Graduate Council Department of Health and Sport Science The University of Memphis, Memphis, TN	2011 – 2012

GRANT FUNDING

Current Research Support

Whitehead (PI)	\$1,500
Collaborative Learning Fellow Awards, The University of Alabama in Huntsville	Role: PI

Enhancing Reciprocal Teaching CoLTs in Exercise Science Research

The purpose of this research is to further the collaborative learning experience in the Department of Kinesiology by incorporating Reciprocal Teaching Collaborative Learning Techniques (CoLTs) into our capstone courses.

Conners (PI) \$45,000
Individual Investigator Distinguished Research Program, The University of Alabama in Huntsville Role: Co-I
Impact of Underwater Treadmill Training on Fatigue, Quality of Life, and Health-Related Fitness in Adults with Multiple Sclerosis
The purpose of this research is to determine if underwater treadmill training can be an acceptable means of physical activity in individuals with multiple sclerosis.

Pending Research Support

Whitehead (PI) \$19,470
The National Strength and Conditioning Foundation 2021 Young Investigator Grant Role: PI
Can combining blood flow restriction with slide board training aid lower extremity strength during a collegiate hockey season?
This proposal aims to further my line of research related to the sport of hockey. I am looking to combine two novel strength and conditioning approaches to see if it can have a positive impact on lower extremity strength in college hockey players. This award is from my primary professional organization and is intended to help researchers conduct a project within seven years of completing their terminal degree.

Whitehead (PI) \$31,845
USA Hockey Foundation Role: PI
Assessment of measurement techniques and the establishment of normative values for body composition in NCAA Division I college hockey
This proposal is a continuation of an ongoing research study. I have previously contacted Division I hockey programs around the country to gather existing body composition data in hopes of updating normative values for the sport. Additionally, I have inquired as to what measurement technique they use. This proposal aims to provide certain programs with consistent body composition assessment tools and analyze data from the updated methods. Results from this study will provide a more precise understanding of body composition in the sport and provide practitioners an updated means of collecting the data.

Completed Research Support

Whitehead (PI) 05/2015 – 04/2017
Freddie H. Fu, MD Dissertation Research Award, University of Pittsburgh \$3,500 Role: PI
Measures of Ankle Proprioception, Strength, and Postural Stability in Male Soccer Players With and Without Chronic Ankle Instability as a Result of Non-Contact Lateral Ankle Sprains
The goal of this study is to determine which laboratory measures are able to discriminate differences and highlight neuromuscular deficiencies in athletes with and without chronic ankle instability, and to validate the measures as part of a robust testing battery to be used in clinical trial and rehabilitation settings.

Whitehead (PI) 05/2016 – 04/2017
Research Development Fund, School of Health and Rehabilitation Sciences \$1,000 Role: PI
Measures of Ankle Proprioception, Strength, and Postural Stability in Male Soccer Players With and Without Chronic Ankle Instability as a Result of Non-Contact Lateral Ankle Sprains

Whitehead (PI) 05/2015 – 04/2016
Freddie H. Fu, MD Dissertation Research Award, University of Pittsburgh \$2,000 Role: PI
Validity and reliability of a modified ankle attachment for the Biodex and Comparing measures of ankle proprioception, strength, and postural stability in male soccer players with and without chronic ankle instability as a result of non-contact lateral ankle sprains
The goal of this study was to determine if a modified attachment for ankle testing on the Biodex Isokinetic Dynamometer could be used to more accurately assess strength and proprioception at the ankle compared to the attachment recommended by the company, which creates motion artifact

Whitehead (PI) 05/2014 – 05/2016
Freddie H. Fu Graduate Research Award, University of Pittsburgh \$2,000 Role: PI
Effect of minimalist footwear use on ankle musculature strength and dynamic postural stability in healthy, physically active adults
The goal of this study was to investigate if habitual use of minimalist footwear during strength and conditioning activities has an effect on postural stability, kinematics, muscle activity, and strength.

Whitehead (PI) 05/2013 – 05/2015
Freddie H. Fu Graduate Research Award, University of Pittsburgh \$2,000 Role: PI
Effect of minimalist footwear during tests of dynamic postural stability in healthy, physically active male adults
The goal of this study was to investigate if minimalist footwear postural stability in individuals with no previous experience wearing minimalist footwear

Attempted Research Support

Roos (PI) Not Funded
Department of Defense Small Business Technology Transfer Role: Co-I
Physical Monitoring Tools to Improve Warfighter Performance
This proposal is in collaboration with two Huntsville-based companies: CFD Research Corporation and RippleWorx. This serves as a Phase I proposal for a DoD SSTR under topic number A20B-T008 where CFD and RippleWorx will look to integrate and analyze physiological monitors while UAH Kinesiology aids in interpreting and collecting data related to human performance.

Whitehead (PI) Not Funded
New Faculty Research Program (2019/2020), The University of Alabama in Huntsville Role: PI
Differences in Core Temperature During Varying Exercise Conditions with an Underwater Treadmill

Whitehead (PI) Not Funded
New Faculty Research Program (2018/2019), The University of Alabama in Huntsville
Observational study of on-ice physiological demands in the sport of hockey

Whitehead (PI) Not Funded
New Faculty Research Program (2017/2018), The University of Alabama in Huntsville
The Validation of an On-Ice Measurement of Lower Extremity Power in Hockey Players

Sakr (PI) Not Funded
Avadim Technologies, LLC
Pilot Study of the Impact of [pH]UEL 5.0 Foam on Injury Symptoms and Function in Collegiate Athletes With Acute Ankle Injuries

Whitehead (PI) Not Funded
USA Hockey Foundation, SPEC Grant
Neuromuscular Research Laboratory Ice Hockey Injury Prevention and Performance Optimization

Whitehead (PI) Not Funded
National Strength and Conditioning Association Foundation Research Grants Program, Graduate Research Grant (Doctoral)
Role of minimalist footwear on ankle strength and postural stability

Whitehead (PI) Not Funded
American College of Sports Medicine. 2015 ACSM Foundation Doctoral Student Research Grant Program
The role of minimalist footwear on enhancing strength and improving stability in collegiate basketball players

Whitehead (PI) Not Funded
National Collegiate Athletic Association Research Committee, 2014 Graduate Student Research Grant Program
The role of minimalist footwear on enhancing strength, improving stability, and potentially preventing injuries in collegiate basketball players

Whitehead (PI) Not Funded
National Strength and Conditioning Association Foundation Research Grants Program. Graduate Research Grant (Master's)
Muscle Activation During Varying Grips of the Pull-down

PUBLICATIONS

Manuscripts – In preparation

Conners RT, **Whitehead PN**, Quick MC, Rodebaugh KL, Urbanski PK. Effect of Walking Speed on Magnitude and Distribution of Plantar Ground Reaction Forces. *Gait and Posture*.

Whitehead PN, Dodds FT, Shimizu TS, Conners RT. The effect of scheduling on lower body power and fatigue in male collegiate hockey players. *Journal of Strength and Conditioning Research*.

Whitehead PN, Quick MC, Darnell ME. Validation of various prediction equations for resting metabolic rate. *Measurement in Physical Education and Exercise Science*.

Whitehead PN, Heebner NR, Darnell ME, Nagai T. Validity and Reliability of a Modified Attachment for Ankle Testing on an Isokinetic Dynamometer. *Isokinetics and Exercise Science*.

Whitehead PN, Darnell ME, Lovalekar MT, Sell TC, Heebner NR, Abt JP. Positive Effect of Minimalist Footwear on Postural Stability in Healthy Male Adults. *Journal of Sports Sciences*.

Manuscripts – In review

Christian JR, Gothart SE, Graham HK, Barganier KD, **Whitehead PN**. Analysis of the Activation of Upper Extremity Muscles During Various Chest Press Modalities. *Journal of Strength and Conditioning Research*.

Raghu SL, Kang CK, **Whitehead PN**, Conners RT. Kinematic Analysis of Gait in an Aquatic Treadmill Using Land-Based Motion Capture Cameras. *Journal of Biomechanics*. (Revisions)

Darnell ME, **Whitehead PN**, Heebner NR, Sell TC, Beals K. Carbohydrate Intake Increases Time to Fatigue but Has No Impact on Landing Mechanics and Postural Stability During Intermittent High-Intensity Exercise. *Journal of Science and Medicine in Sport*.

Manuscripts – Published

Conners RT, Rodebaugh KL, Bosheers A, Kane B, Kyle D, Light J, Quick MC, **Whitehead PN**. Sport Performance Measures in Youth Wheelchair Basketball Athletes. *Palestra*. 2021; 35(2).

Pring NA, Solomon SL, O'Brien A, Conners RT, **Whitehead PN**. The Effect of Shin-Torso Alignment on Muscle Activity of the Lower Extremity in Hockey Players. *International Journal of Exercise Science*. (In Press)

Elliott JM, Conners RT, **Whitehead PN**, Craw MJ. Learning to adapt: Understanding micropolitics for transitioning coaches. *Strategies*. (Accepted)

- Elsy AM, Lowe AK, Cornell AN, **Whitehead PN**, Conners RT. Comparison of the Three-Site and Seven-Site Measurements in Female Collegiate Athletes Using BodyMetrix. *International Journal of Exercise Science*. 2021; 14(4): 230-238.
- Conners RT, **Whitehead PN**, Dodds FT, Schott KD, Quick MC. Validation of the Polar Team Pro System for Sprint Speed with Ice Hockey Players. *Journal of Strength and Conditioning Research*. 2020; Epub ahead of print (Accepted)
- Conners RT, Elliott JM, Kyle DL, **Whitehead PN**. Physiological responses of youth players during wheelchair basketball games. *European Journal of Adapted Physical Activity*. 2020 Jul 7.
- Alrefai M, Claytor R, New B, **Whitehead PN**. The Usefulness of Achilles Tendon Length in Predicting Jump Potential in Male Collegiate Basketball and Track & Field Athletes. *Perpetua*. 2020; 4(2): 1-7.
- Christian J, Gothart S, Graham H, Barganier K, **Whitehead PN**. Analysis of the Activation of Upper Extremity Muscles During Various Chest Press Modalities. *Perpetua*. 2020; 4(2): 9-18.
- Schott K, **Whitehead PN**. Differences in Player Metrics Between Lacrosse Games and Practices. *Perpetua*. 2020; 4(2): 49-55.
- Whitehead PN**, Conners RT, Shimizu TS. The effect of in-season demands on lower body power and fatigue in male collegiate hockey players. *Journal of Strength and Conditioning Research*. 2019; 33(4): 1035-42.
- Raghu SL, Kang CK, **Whitehead PN**, Takeyama A, Conners RT. Static accuracy analysis of Vicon T 40s motion capture cameras for aquatic applications. *Journal of Biomechanics*. 2019; 89: 139-142.
- Schmitz JL, **Whitehead PN**, Darnell ME, Akins JS, Lovalekar M, Conley KM, Nagai T. Comparison and Correlation of Dynamic Postural Stability Indices Obtained During Different Dynamic Landing Tasks and Footwear Conditions. *International Journal for Innovation Education and Research*. 2019; 7(2): 10-21.
- Myers W, George C, McRae H, McMahan A, **Whitehead PN**. Effects of a Weighted Pitching Sleeve on Range of Motion, Shoulder Strength, and Throwing Velocity in Collegiate-Aged Baseball Players. *Perpetua*. 2019; 3(2): 27-35.
- Pring NA, Welch MR, **Whitehead PN**. The Effect of Familiar Location on Upper Body Strength Testing Using the 1RM Bench Press. *Perpetua*. 2019; 3(2) 36-41.
- Anderson J, Chisenall T, Tolbert B, Ruffner J, **Whitehead PN**, Conners RT. Validating the Commercially Available Garmin Fenix 5x Wrist-Worn Optical Sensor for Aerobic Capacity. *International Journal for Innovation Education and Research*. 2019; 7(1): 147-158.
- Conners RT, **Whitehead PN**, Shimizu TS, Bailey JD. Coaching and technology: Live team monitoring to improve training and safety. *Strategies*. 2018; 31(5): 15-20.
- Whitehead PN**. Minimalist footwear as a training tool. *Professional Association of Athlete Development Specialists (PAADS) Athlete Development Research Digest*. April 2018.
- Johnson CD, **Whitehead PN**, Pletcher ER, Faherty MA, Lovalekar MT, Eagle SR, Keenan KA. The Relationship of Core Strength and Performance on Three Functional Movement Screens. *Journal of Strength and Conditioning Research*. 2018; 32(4): 1166-73.
- Whitehead PN**, Schilling BK, Stone MH, Kilgore JL, Chiu LZ. Snatch technique of United States national level weightlifters. *Journal of Strength and Conditioning Research*. 2014; 28(3): 587-91.

Whitehead PN, Schilling BK, Peterson DD, Weiss LW. Possible New Modalities for the Navy Physical Readiness Test. *Military Medicine*. 2012; 177(11): 1417-25.

Whitehead PN, Schilling BK, Farney TM, Bloomer RJ. Impact of a Dietary Supplement Containing 1, 3-Dimethylamylamine on Blood Pressure and Bloodborne Markers of Health: a 10-Week Intervention Study. *Nutrition and Metabolic Insights*. 2012; 5: 1-7.

Farney TM, McCarthy CG, Canale RE, Schilling BK, **Whitehead PN**, Bloomer RJ. Absence of blood oxidative stress in exercise-trained men following supra-physiologic bouts of acute exercise. *Medicine and Science in Sports and Exercise*. 2012; 44(10): 1855-63.

Feldmann CR, Weiss LW, Schilling BK, **Whitehead PN**. Association of drop vertical jump displacement with select performance variables. *Journal of Strength and Conditioning Research*. 2012; 26(5): 1215-25.

Abstracts

Conners RT, Rodebaugh KL, Kane B, Kyle DL, Light J, Quick MC, **Whitehead PN**. The Association of Wingspan to Sport Performance Measures in Youth Wheelchair Basketball Athletes. *ACSM's 68th Annual Meeting, 12th World Congress on Exercise is Medicine® and World Congress on the Basic Science of Exercise in Regenerative Medicine*; June 1 thru June 5, 2021; Virtual Conference.

Christian JR, Gothart SE, Graham HK, Barganier KD, **Whitehead PN**. Analysis of the Activation of Upper Extremity Muscles During Various Chest Press Modalities. *National Strength and Conditioning Association 2020 National Conference*; July 8 thru July 11, 2020; Las Vegas, NV. Virtual Conference.

Whitehead PN, Conners RT, Elliott JM, Darnell ME. Physiological Demand of Ice Hockey Officiating Across Competition Levels and Officiating Systems. *ACSM's 67th Annual Meeting, 11th World Congress on Exercise is Medicine® and World Congress on the Basic Science of Exercise in Regenerative Medicine*; May 26 thru May 30, 2020; San Francisco, CA. Virtual Conference.

Conners RT, Dodds FT, Schott KD, Quick MC, **Whitehead PN**. Validation of Player Tracking Sensors for Measuring Sprint Speed with Collegiate Ice Hockey Players. *ACSM's 67th Annual Meeting, 11th World Congress on Exercise is Medicine® and World Congress on the Basic Science of Exercise in Regenerative Medicine*; May 26 thru May 30, 2020; San Francisco, CA. Virtual Conference.

Schott KD, Conners RT, **Whitehead PN**. Differences in Player Metrics Between Lacrosse Games and Practices. *ACSM's 67th Annual Meeting, 11th World Congress on Exercise is Medicine® and World Congress on the Basic Science of Exercise in Regenerative Medicine*; May 26 thru May 30, 2020; San Francisco, CA. Virtual Conference.

Darnell ME, Kleiber LE, Chismar JR, **Whitehead PN**. Increased Body Fat Negatively Impacts Aerobic Capacity of Elite American Football Players Regardless of Position. *ACSM's 67th Annual Meeting, 11th World Congress on Exercise is Medicine® and World Congress on the Basic Science of Exercise in Regenerative Medicine*; May 26 thru May 30, 2020; San Francisco, CA. Virtual Conference.

Whitehead PN, Conners RT, Elliott JM, Darnell ME. Use of a team heart rate monitoring system to assess the demands of competition in collegiate ice hockey players. *National Strength and Conditioning Association 2019 National Conference*; July 10 thru July 13, 2019; Washington, DC.

Elliott JM, Conners RT, **Whitehead PN**. Adaptability and the development of coach/athlete relationships for novice coaches. *United States Center for Coaching Excellence (USCCE) 2019 North American Coach Development Summit*; June 17 thru June 19, 2019; Colorado Springs, CO.

Pring NA, Solomon SL, Conners RT, **Whitehead PN**. The Effect of Shin-Torso Alignment on Muscle Activity of the Lower Extremity in Hockey Players. *The National Conference on Undergraduate Research (NCUR) 2019*; April 10 thru April 13, 2019; Kennesaw, GA.

Pring NA, Solomon SL, Conners RT, **Whitehead PN**. The Effect of Shin-Torso Alignment on Muscle Activity of the Lower Extremity in Hockey Players. *2019 Annual Meeting of the Southeast Chapter of the American College of Sports Medicine (SEACSM)*; February 14 thru February 16, 2019; Greenville, SC.

Whitehead PN, Beals K, Lovalekar M, Onishi K, Nagai T, Connaboy C. History of Ankle Sprains Related to Hindered Proprioception in College-Age Male Soccer Players. *ACSM's 65th Annual Meeting, 9th World Congress on Exercise is Medicine® and World Congress on the Basic Science of Muscle Hypertrophy and Atrophy*; May 29 thru June 2, 2018; Minneapolis, MN.

Johnson CD, **Whitehead PN**, Pletcher ER, Faherty MA, Lovalekar MT, Eagle SR, Keenan KA. Core Strength as a Predictor of Performance During Three Functional Movement Screens. *ACSM's 64th Annual Meeting, 8th World Congress on Exercise is Medicine® and World Congress on the Basic Science of Exercise and the Brain*; May 30 thru June 3, 2017; Denver, CO.

Schmitz JL, **Whitehead PN**, Darnell ME, Akins JS, Lovalekar MT, Conley KM, Nagai T. Comparison and correlation of dynamic postural stability indices obtained during different dynamic landing tasks and footwear conditions. *The 12th Annual Atlantic Coast Conference (ACC) Meeting of the Minds Conference, Duke University*; March 31 thru April 2, 2017; Durham, NC.

Whitehead PN, Tammaro MR, Schmitz JL, Darnell ME. Minimalist footwear reduces muscle activity in the lower leg during a jump landing task. *International Journal of Exercise Science: Conference Proceedings: Vol. 9: Iss. 5, Article 105. Presented at: Mid-Atlantic Regional Chapter of the American College of Sports Medicine (MARC-ACSM) 39th Annual Scientific Meeting – 2016*; November 1, 2016; Harrisburg, PA.

Johnson CD, **Whitehead PN**, Pletcher ER, Faherty MA, Lovalekar MT, Eagle SR, Keenan KA. Core Strength as a Predictor of Performance During Three Functional Movement Screens: A Preliminary Analysis. *International Journal of Exercise Science: Conference Proceedings: Vol. 9: Iss. 5, Article 52. Presented at: Mid-Atlantic Regional Chapter of the American College of Sports Medicine (MARC-ACSM) 39th Annual Scientific Meeting – 2016*; November 1, 2016; Harrisburg, PA.

Tammaro MR, Schmitz JL, Darnell ME, **Whitehead PN**. Habitual users of minimalist footwear display better dynamic postural stability during a jump landing task. *International Journal of Exercise Science: Conference Proceedings: Vol. 9: Iss. 5, Article 99. Presented at: Mid-Atlantic Regional Chapter of the American College of Sports Medicine (MARC-ACSM) 39th Annual Scientific Meeting – 2016*; November 1, 2016; Harrisburg, PA.

Schmitz JL, Tammaro MR, Darnell ME, **Whitehead PN**. Effect of minimalist footwear on landing kinematics of the knee in physically active adults. *International Journal of Exercise Science: Conference Proceedings: Vol. 9: Iss. 5, Article 88. Presented at: Mid-Atlantic Regional Chapter of the American College of Sports Medicine (MARC-ACSM) 39th Annual Scientific Meeting – 2016*; November 1, 2016; Harrisburg, PA.

Whitehead PN, Sell TC, Lovalekar MT, Darnell ME, Heebner NR, Abt JP, Lephart SM. Better dynamic postural stability while wearing minimalist footwear in physically-active male adults. *Medicine and Science in Sports and Exercise. 2016; 48:5 Supplement. Thematic Poster Presentation at: ACSM's 63rd Annual Meeting, 7th World Congress on Exercise is Medicine® and World Congress on the Basic Science of Energy Balance*; June 1, 2016; Boston, MA.

Darnell ME, **Whitehead PN**, Heebner NR, Sell TC, Beals KC, Lephart SM. Effects of Carbohydrates on Landing Mechanics and Postural Stability During Intermittent High-Intensity Exercise to Fatigue. *International Journal of Exercise Science: Conference Proceedings*: Vol. 9: Iss. 4, Article 35. Presented at: Mid-Atlantic Regional Chapter of the American College of Sports Medicine (MARC-ACSM) 38th Annual Scientific Meeting – 2015; November 1, 2015; Harrisburg, PA.

Whitehead PN, Sell TC, Lovalekar M, Heebner NR, Abt JP, Lephart SM (2015). Better dynamic postural stability while wearing minimalist footwear in physically-active male adults. *International Journal of Exercise Science: Conference Proceedings*. Vol. 9: Iss 3, Article 93. Presented at: Mid-Atlantic Regional Chapter of the American College of Sports Medicine (MARC-ACSM) 37th Annual Scientific Meeting – 2014; October 31, 2014; Harrisburg, PA.

Feldmann CR, Weiss LW, Schilling BK, **Whitehead PN**. Association of drop vertical jump displacement with select performance variables. Presented at: National Strength and Conditioning Association 2011 National Conference; July 2011; Las Vegas, NV.

Feldmann CR, Weiss LW, Schilling BK, **Whitehead PN**. Stability reliability and precision of select jumping performance variables and indices. Presented at: National Strength and Conditioning Association 2011 National Conference; July 2011; Las Vegas, NV.

PRESENTATIONS

Minimalist Footwear Reduces Muscle Activity in the Lower Leg During a Jump Landing Task MARC-ACSM Annual Meeting, Harrisburg, PA (Thematic Poster Presentation)	November 2016
Minimalist Footwear Reduces Muscle Activity in the Lower Leg During a Jump Landing Task Science 2016 – Game Changers, Pittsburgh, PA (Abstract Presentation)	October 2016
Habitual Users of Minimalist Footwear Display Better Dynamic Postural Stability Science 2016 – Game Changers, Pittsburgh, PA (Abstract Presentation)	October 2016
Effect Minimalist Footwear on Landing Kinematics of the Knee in Physically-Active Adults Science 2016 – Game Changers, Pittsburgh, PA (Abstract Presentation)	October 2016
Better Dynamic Postural Stability While Wearing Minimalist Footwear in Physically-Active Male Adults ACSM Annual Meeting, Boston, MA (Thematic Poster Presentation)	June 2016
The Role of Ankle Injury History on Measures of Ankle Proprioception, Strength, and Postural Stability Research Seminar, School of Health and Rehabilitation Sciences Pittsburgh, PA (Invited Speaker)	February 2016
Ice Hockey Injury Prevention and Performance Optimization UPMC Lemieux Sports Complex/Pittsburgh Penguins Research Roundtable Pittsburgh, PA (Invited Speaker)	February 2016
Dietary Supplements: Research Experience Dietary Supplements for Health and Performance, School of Health and Rehabilitation Sciences Pittsburgh, PA (Invited Speaker)	February 2015
Activity Monitors Laboratory Techniques, School of Health and Rehabilitation Sciences Pittsburgh, PA (Invited Speaker)	February 2015

Better Dynamic Postural Stability While Wearing Minimalist Footwear
MARC-ACSM Annual Meeting, Harrisburg, PA (Doctoral Student Investigator Award Presentation)

October 2014

Role of Footwear on Ankle Strength and Postural Stability
Current Research Presentations, School of Health and Rehabilitation Sciences
Pittsburgh, PA (Invited Speaker)

September 2014

RESEARCH INTERESTS AND SKILLS

- Effect of footwear on postural stability and lower extremity risk factors
 - Proprioception testing of the ankle and the effect of injury on performance measures
 - Injury prevention and performance optimization in athletic and military populations
 - Chronic and functional ankle instability
 - Neuromuscular control relating to lower extremity injury prevention
 - Performance optimization and sport-specific testing for ice hockey
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- VO2max, Metabolic Cart, RMR
 - Wingate Anaerobic Power
 - Phlebotomy
 - Blood lactate analysis
 - Isokinetic dynamometry
 - Isometric strength testing with handheld dynamometry
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- Body composition analysis: BodPod, Skinfold, BodyMetrix
 - Surface electromyography
 - Biomechanics: Force plates, Vicon Motion Analysis/Kinematics
 - Software: MS Office, SPSS, Nexus