

Neuromechanics Laboratory Peer-Reviewed Research Publications - Since 2014:

	<i>Published</i>	<i>In-Review</i>	<i>In-Preparation</i>
<i>Journal Articles</i>	107	5	5
<i>Conference Proceedings & Presentations</i>	131	-	6
<i>Textbook Chapters</i>	1	-	1
<i>Textbook</i>	1	-	-

Published/In-Press: († Indicates primary student mentored project)

1. Chander, H., McCrory, A., Chandler, S. J., Freeny, S., Griffith, A., Burch, R., ... & Knight, A. C. (2023). Noise Interference Impacts Simple and Choice Response Times during a Lower Extremity Cognitive–Motor Task. *Clinical and Translational Neuroscience*, 7(1), 4.
2. † Lowell, R., Conner, N. O., Derby, H., Hill, C. M., Gillen, Z., Burch, R. F., Knight, A., Reneker, J. & Chander, H. (2023). Quick on Your Feet: Modifying the Star Excursion Balance Test with a Response Time Task. *International Journal of Environmental Research and Public Health*, 20, 1204. <https://doi.org/10.3390/ijerph20021204>.
3. Davarzani, S., Saucier, D., Talegaonkar, P., Parker, E., Turner, A., Middleton, C., W., Ball, J. E., Gurbuz, A., Chander, H., Burch, R. F., Smith, B. K., Knight, A., & Freeman, C. (2023). Closing the Wearable Gap—Part X: Foot-ankle Kinematic Modeling via Deep Learning Models Based on a Smart Sock Wearable. *Wearable Technologies*. (Accepted)
4. † Derby, H., Chander, H., Kodithuwakku Arachchige, S. N. K., Turner, A., Knight, A. C., Burch, R. F., Freeman, C., Wade, C., & Garner, J. C. (2022). Occupational Footwear Design Influences Biomechanics and Physiology of Human Postural Control and Fall Risk. *Applied Sciences*, 13(1), 116. <https://doi.org/10.3390/app13010116>.
5. Strawderman, L., Jose, B., Burch, R., Warren, S., Taylor, C., Ball, J., ... & Chander, H. (2022). The applicability of existing acceptance models for enterprise organizational technology acceptance of wearables. *International Journal of Industrial Ergonomics*, 92, 103381. <https://doi.org/10.1016/j.ergon.2022.103381>.
6. Persons, A. K., Middleton, C., Parker, E., Carroll, W., Turner, A., Talegaonkar, P., Davarzani, S., Saucier, D., Chander, H., ... & Burch V, R. F. (2022). Comparison of the Capacitance of a Cyclically Fatigued Stretch Sensor to a Non-Fatigued Stretch Sensor When Performing Static and Dynamic Foot-Ankle Motions. *Sensors*, 22(21), 8168. <https://doi.org/10.3390/s22218168>
7. Mamun, A. A., Bormon, K. K., Rasu, M. N. S., Talukder, A., Freeman, C., Burch, R., & Chander, H. (2022). An Assessment of Energy and Groundwater Consumption of Textile Dyeing Mills in Bangladesh and Minimization of Environmental Impacts via Long-Term Key Performance Indicators (KPI) Baseline. *Textiles*, 2(4), 511-523. <https://doi.org/10.3390/textiles2040029>
8. † Conner, N. O., Freeman, H. R., Jones, J. A., Luczak, T., Carruth, D., Knight, A. C., & Chander, H. (2022). Virtual Reality Induced Symptoms and Effects: Concerns, Causes, Assessment & Mitigation. *Virtual Worlds* 1 (2),130-146. <https://doi.org/10.3390/virtualworlds1020008>
9. † Derby, H.; Conner, N.O.; Talukder, A.; Griffith, A.; Freeman, C.; Burch, R.; Simpson, J.D.; Goble, D.J.; Knight, A.C.; Chander, H. (2022). Impact of Sub-Clinical and Clinical Compression Socks on Postural Stability Tasks among Individuals with Ankle Instability. *Healthcare*, 10, 1271. <https://doi.org/10.3390/healthcare10071271>
10. Chander, H., Freeman, H. R., Hill, C. M., Hudson, C. R., Kodithuwakku Arachchige, S. N., Turner, A. J., ... & Knight, A. C. (2022). The Walls Are Closing in: Postural Responses to a Virtual Reality Claustrophobic Simulation. *Clinical and Translational Neuroscience*, 6(2), 15. <https://doi.org/10.3390/ctn6020015>
11. † Talukder, A., Derby, H., Freeman, C., Burch, R., Knight, A., & Chander, H. (2022). Sensory and Tactile Comfort Assessment of Sub-Clinical and Clinical Compression Socks on Individuals with Ankle Instability. *Textiles*, 2(2), 307-317. <https://doi.org/10.3390/textiles2020017>
12. Gaddis, E. S., Burch, R.F.V., Strawderman, L., Chander, H., Smith, B. K., Freeman, C., & Taylor, C. (2022). The impact of using wearable devices on the operator during manual material handling tasks. *International Journal of Industrial Ergonomics*, 89, 103294. <https://doi.org/10.1016/j.ergon.2022.103294>
13. Arlotti, J.S., Carroll, W.O., Afifi, Y., Talegaonkar, P., Albuquerque, L., Ball, J.E., Chander, H. and Petway, A., (2022). Benefits of IMU-based Wearables in Sports Medicine: Narrative Review. *International Journal of Kinesiology and Sports Science*, 10(1), 36-43. <https://doi.org/10.7575/aiac.ijkss.v.10n.1p.36>
14. Booker, R., Chander H., Norris, K.C., Thorpe Jr, R.J, Vickers, B., Holmes, M.E. (2022). Comparison of Leisure Time Physical Activities by Metabolic Syndrome Status among Adolescents. *International Journal of Environmental Research and Public Health*, 19(3), 1415. <https://doi.org/10.3390/ijerph19031415>
15. McDevitt, S., Hernandez, H., Hicks, J., Lowell, R., Bentahaikt, H., Burch, R., Ball, J., Chander, H., Freeman, C., Taylor, C. & Anderson, B. (2022). Wearables for Biomechanical Performance Optimization and Risk Assessment in Industrial and Sports Applications. *Bioengineering*, 9(1), 33. <https://doi.org/10.3390/bioengineering9010033>
16. Carroll, W., Fuller, S., Lawrence, J. M., Osborn, S., Stallcu, R., Burch, R., Freeman, C., Chander, H., ... & Piroli, A. (2021). Stroboscopic Visual Training for Coaching Practitioners: A Comprehensive Literature Review. *International Journal of Kinesiology and Sports Science*, 9(4), 49-59. <http://dx.doi.org/10.7575/aiac.ijkss.v.9n.4p.49>

17. Chander H, Kodithuwakku Arachchige SNK, Turner AJ, Burch RFV, Reneker JC, Knight AC, Wade C & Garner JC. Sensory Organization Test Conditions Influence Postural Strategy Rather than Footwear or Workload. *International Journal of Environmental Research and Public Health*, 2021, 18(19), 10511; <https://doi.org/10.3390/ijerph181910511>.
18. † Kodithuwakku Arachchige SNK, Chander H, Knight AC, Burch RFV, and Chen C. Dual Tasking During Trip Recovery and Obstacle Clearance among Young, Healthy Adults in Human Factors Research. *International Journal of Environmental Research and Public Health*, 2021, 18(19), 10144; <https://doi.org/10.3390/ijerph181910144>.
19. Chander H, Kodithuwakku Arachchige SNK, Turner AJ, Burch RFB, Knight AC, Wade C & Garner JC. (2021). Role of occupational footwear and workload on lower extremity muscle activation during maximal exertions and postural stability tasks. (2020). *Biomechanics*, 1(2), 202-213; <https://doi.org/10.3390/biomechanics1020017>
20. † Kodithuwakku Arachchige SNK, Burch RFV, Chander H, Turner AJ, and Knight AC. (2021). The Use of Wearable Devices in Cognitive Fatigue: Current Trends and Future Intentions. *Theoretical Issues in Ergonomics Science*. <https://doi.org/10.1080/1463922X.2021.1965670>
21. Saucier, D.N.; Davarzani, S.; Burch V, R.F.; Chander, H.; Strawderman, L.; Freeman, C.; Ogden, L.; Petway, A.; Duvall, A.; Crane, C.; Piroli, A. (2021). External Load and Muscle Activation Monitoring of NCAA Division I Basketball Team Using Smart Compression Shorts. *Sensors*, 21, 5348. <https://doi.org/10.3390/s21165348>
22. Carroll, W., Turner, A.J., Talegaonkar, P., Parker, E., Middleton, C., Peranich, P., Saucier, D.N., Burch, R.F.B.V., Ball, J.E., Smith, B.K., Chander, H., Knight, A.C., & Freeman, C.E. (2021) "Closing the Wearable Gap: Part IX — Validation of an Improved Ankle Motion Capture Wearable," in IEEE Access, <https://ieeexplore.ieee.org/abstract/document/9508398>
23. † Turner, A.J., Carroll, W., Kodithuwakku Arachchige, S.N.K., Saucier, D., Burch, R.F., Ball, J.E., Smith, B.K., Freeman, C., Knight, A.C. & Chander, H. (2021). Closing the Wearable Gap: A Validation Study for a Smart Knee Brace to Capture Knee Joint Kinematics. *Biomechanics*, 1(1), 152-162; <https://doi.org/10.3390/biomechanics1010012>
24. Stewart, E., Stewart, M., Arachchige, S. N. K., Turner, A., Knight, A., Johnson, J., ... & Chander, H. (2021). Validation of a Bat Handle Sensor for Measuring Bat Velocity, Attack Angle, and Vertical Angle. *International Journal of Kinesiology and Sports Science*, 9(2), 28-32. <http://dx.doi.org/10.7575/aiac.ijkss.v.9n.2p.28>.
25. Simpson J., Koldenhoven R., Wilson S., Stewart E., Turner A., Chander H., & Knight A. (2021). Lower extremity joint kinematics of a simulated lateral ankle sprain after drop landings in subjects with chronic ankle instability. *Sports Biomechanics Special Issue on Ankle Sprains and Instability*. <https://doi.org/10.1080/14763141.2021.1908414>.
26. Smith E, Burch RFB, Smith B, Strawderman L & Chander H. (2021). A Comfort Analysis of Using Smart Glasses During the "Picking" and "Putting" Task. *International Journal of Industrial Ergonomics*. 83, <https://doi.org/10.1016/j.ergon.2021.103133>.
27. Chander H, Garner JC, Wade C, Wilson SJ, Turner AJ, Kodithuwakku Arachchige SNK, Hill CM, DeBusk H, Simpson JD, Miller BL, Morris CE & Knight AC. (2021). An Analysis of Postural Control Strategies in Various Types of Footwear with Varying Workloads. *Footwear Science*. <https://doi.org/10.1080/19424280.2021.1899297>.
28. † Kodithuwakku Arachchige SNK, Chander H, Turner AJ, Knight AC. (2021). Impact of Prolonged Exposure to a Slippery Surface on Postural Stability. *International Journal of Environmental Research and Public Health*, 18(5), 2214; <https://doi.org/10.3390/ijerph18052214>
29. Bailey C., Cagle G., Grozier C., Lehtola K., Weaver J., Wilson S., Chander H., Rendos N., & Simpson J. (2021). Gathering your 'sea legs': Extended durations in an offshore environment increases postural sway. *Gait & Posture*, 86, 45-50. <https://doi.org/10.1016/j.gaitpost.2021.02.014>
30. Chander H, Garner JC, Wade C & Knight AC. (2021). Lower Extremity Muscle Activation in Alternative Footwear during Slip Events. *International Journal of Environmental Research and Public Health*, 18(4), 1533, <https://doi.org/10.3390/ijerph18041533>
31. Chander H, Kodithuwakku Arachchige SNK, Turner AJ & Knight AC. (2020). Is it me or the room moving? Recreating the classical "moving room" experiment with virtual reality for postural control adaptation. *Adaptive Behavior*. <https://doi.org/10.1177%2F1059712320971372>
32. Davarzani, S., Helzer, D., Rivera, J., Saucier, D., Jo, E., Chander, H., ... & Petway, A. (2020). Validity and Reliability of StriveTM Sense3 for Muscle Activity Monitoring During the Squat Exercise. *International Journal of Kinesiology and Sports Science*, 8(4), 1-18. <http://dx.doi.org/10.7575/aiac.ijkss.v.8n.4p.1>.
33. Phan P, Vo A, Bakhtiyarjavijani A, Burch RFB, Smith B, Ball J, Chander H, Knight AC, Prabhu RK. (2020). In Silico Finite Element Analysis of the Foot Ankle Complex Biomechanics: A Literature Review. *Journal of Biomechanical Engineering*. <https://doi.org/10.1115/1.4050667>.
34. † Kodithuwakku Arachchige, S.N.K., Chander, H., Burch, R.F.V., Knight, A.C. & Carruth, D.W. (2020). Occupational falls: Interventions for fall detection, prevention and safety promotion. *Theoretical Issues in Ergonomics Science*. <https://doi.org/10.1080/1463922X.2020.1836528>
35. Price, F. G., Smith, J. W., Turner, A. J., Krings, B. M., Waldman, H. S., Chander, H., Knight A.C & McAllister, M. J. (2020). High-Intensity Interval Training in Middle-Distance NCAA Division I 800/1500m Collegiate Athletes. *International Journal of Kinesiology and Sports Science*, 8(3), 28-35. <http://dx.doi.org/10.7575/aiac.ijkss.v.8n.3p.28>
36. Luczak, T., Burch, R.F.V, Smith, B., Chander, H., Lamberth, J., & Carruth, D. (2020). Using Human Factors Engineering and Garvin's Product Quality to Develop a Basketball Shoe Taxonomy. *Proceedings of the Institution of*

37. Talegaonkar, P., Saucier, D., Carroll, W., Peranich, P., Parker, E., Middleton, C., Davarzani, S., Turner, A., Persons, K., Casey, L., Burch, R.F., Ball, J.E., Chander, H., Knight, A.C, Luczak, T., Smith, B. & Prabhu, R.K. (2020). Closing the Wearable Gap—Part VII: A Retrospective of Stretch Sensor Tool Kit Development for Benchmark Testing. *Electronics*, 9 (9), 1457. <https://doi.org/10.3390/electronics9091457>
38. Simpson J., Koldenhoven R., Wilson S., Stewart E., Turner A., Chander H., & Knight A. (2020). Ankle kinematics, center of pressure progression, and lower extremity muscle activity during a side-cutting task in participants with and without chronic ankle instability. *Journal of Electromyography and Kinesiology*, 54, 102454. <https://doi.org/10.1016/j.jelekin.2020.102454>.
39. † Kodithuwakku Arachchige, S.N.K., Chander, H., Knight, A.C. Chen, C.C., Pan, Z. & Turner, A.J. (2020). Impact of foot type, quadriceps angle, and minimalist footwear on static postural stability. *Footwear Science*, 12(3), 173-183. <https://doi.org/10.1080/19424280.2020.1791976>.
40. † Kodithuwakku Arachchige, S.N.K., Chander, H., Turner, A.J., Wilson, S.J., Simpson, J.D., Knight, A.C., Burch, R.F.V., Wade, C., Garner, J.C. & Carruth, D.W. (2020). Muscle activity during postural stability tasks: Role of military footwear and load carriage. *Safety*, 6(3), 35. <https://doi.org/10.3390/safety6030035>
41. Pace, M., O' Neal, E., Killen, L., Green, J.C., Simpson, J.D., Chander, H. & J., Swain. (2020). Minimalist Style Boot Improves Running but not Walking Economy in Trained Men. *Ergonomics*, 63(10), 1329-1335. <https://doi.org/10.1080/00140139.2020.1778096>
42. Chander, H., Deb, S., Shojaei, A., Kodithuwakku Arachchige, S.N.K., Hudson, C., Knight, A.C. & Carruth, D.W. (2020). Impact of Virtual Reality (VR) Generated Construction Environments at Different Heights on Postural Stability and Fall Risk. *Workplace Health and Safety*, 69, (1), 32-40. <https://doi.org/10.1177%2F2165079920934000>.
43. Chander, H., Kodithuwakku Arachchige, S.N.K., Wilson, S.J., Knight, A.C., Burch, R.F.V., Carruth, D.W., Wade, C. & Garner, J.C. (2020). Impact of Military Footwear Type and Load Carriage on Slip Initiation Biomechanics. *International Journal of Human Factors and Ergonomics*, 7 (2), 125-143. <https://doi.org/10.1504/IJHFE.2020.109560>
44. Chander, H., Burch, R. F., Talegaonkar, P., Saucier, D., Luczak, T., Ball, J. E., ... & Knight, A. (2020). Wearable Stretch Sensors for Human Movement Monitoring and Fall Detection in Ergonomics. *International Journal of Environmental Research and Public Health*, 17(10). <https://doi.org/10.3390/ijerph17103554>
45. † Hill, C., DeBusk, H., Knight, A., & Chander, H. (2020). Military-Type Workload and Footwear Alter Lower Extremity Muscle Activity During Unilateral Static Balance: Implications for Tactical Athletic Footwear Design. *Sports*, 8(5), 58. <https://doi.org/10.3390/sports8050058>.
46. Davarzani, S., Saucier, D., Peranich, P., Carroll, W., Turner, A., Parker, E., Burch, R.F., Chander, H., Knight, A.C, Prabhu, R.K., & Ball, J. (2020). Closing the Wearable Gap—Part VI: Human Gait Recognition Using Deep Learning Methodologies. *Electronics*, 9(5), 796. <https://doi.org/10.3390/electronics9050796>.
47. Liu, Y., Stranburg, T., Chander, H., Knight, A.C. & Bell, J. (2020). Additively Manufactured Metal Foot Orthotics: Lessons Learned From NSF I-Corps. *The International Journal of Technology Transfer and Commercialization*, 14 (4), <https://doi.org/10.1504/IJTTC.2020.113209>
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49. Stewart, E.M., Smidebush, M., Simpson, J.D., Knight, A.C., Chander, H. & Shapiro, R. (2020). Differences in the Start Times of Swing Phases for Baseball Hitters of Varying Skill. *Journal of Sport Analytics*, 6 (3), 199-204.
50. Luczak, T., Burch, R.F.V., Smith, B.K., Carruth, D.W., Lamberth, J., Chander, H. Knight, A.C., Ball, J.E., Prabhu, R.K. (2020). Closing the Wearable Gap – Part V: Development of Pressure-Sensitive Sock Utilizing Soft Sensors. *Sensors*, 20, 208. <https://doi.org/10.3390/s20010208>.
51. Luczak, T., Burch, R., Lewis, E., Chander, H., & Ball, J. (2020). State-of-the-art review of athletic wearable technology: What 113 strength and conditioning coaches and athletic trainers from the USA said about technology in sports. *International Journal of Sports Science & Coaching*, 15(1), 26-40. <https://doi.org/10.1177%2F1747954119885244>.
52. Simpson, J.D., Stewart, E.M., Turner, A.J., Macias, D., Chander, H. & Knight, A.C. (2020). Lower limb joint kinetics during a side-cutting movement in participants with and without chronic ankle instability. *Journal of Athletic Training*, 55 (2): 169-175. <https://doi.org/10.4085/1062-6050-334-18>.
53. Simpson, J.D., Cosio-Lima, L., Scudamore, E., O'Neal, E., Stewart, E.M., Miller, B.L., Chander, H. & Knight, A.C. (2020). Effects of Weighted Vest Loading during Daily Living Activities on Countermovement Jump and Sprint Performance. *International Journal of Sports Physiology and Performance*. 15(3), 309-318. <https://doi.org/10.1123/ijspp.2019-0318>
54. Chander, H., Arachchige, K., Sachini, N. K., Hill, C. M., Turner, A. J., Deb, S., ... & Carruth, D. W. (2019). Virtual-Reality-Induced Visual Perturbations Impact Postural Control System Behavior. *Behavioral Sciences*, 9(11), 113. <https://doi.org/10.3390/bs9110113>.
55. Saucier, D., Davarzani, S., Turner, A., Luczak, T., Nguyen, P., Carroll, W., F Burch V, R., Ball, J.E., Smith, B.K., Chander, H. and Knight, A. (2019). Closing the Wearable Gap—Part IV: 3D Motion Capture Cameras Versus Soft

Robotic Sensors Comparison of Gait Movement Assessment. *Electronics*, 8 (12), 1382.

<https://doi.org/10.3390/electronics8121382>.

56. Chander, H., Stewart, E.M., Saucier, D., Nguyen, P., Luczak, T., Ball, J.E., Knight, A.C., Smith, B.K., Burch, R.F.V. & Prabhu, R.K. (2019). Closing the Wearable Gap – Part III: Use of Stretch Sensors in Detecting Ankle Joint Kinematics during Unexpected & Expected, Slip & Trip Perturbations. *Electronics*, 8 (10), 1083. <https://doi.org/10.3390/electronics8101083>.
57. Shelly, Z., Stewart, E., Fonville, T., Chander, H., Strawderman, L., May, D., ... & Bichey, C. (2019). Helmet Prototype Response Time Assessment using NCAA Division 1 Collegiate Football Athletes. *International Journal of Kinesiology and Sports Science*, 7(4), 53-65. <http://dx.doi.org/10.7575/aiac.ijkss.v.7n.4p.53>.
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PEER-REVIEWED CONFERENCE PROCEEDINGS AND PRESENTATIONS:

American Society of Biomechanics (ASB):

1. Hill CM, Chandler SJ, McCrory AN, Freeny S, Trigg SK, Burch RFBV, Knight AC & Chander H. Quick On Your Feet: Revamping the Star Excursion Balance Test With A Response Time Task. *North American Congress on Biomechanics*, August 21 – 25, 2022 in Ottawa, Ontario.
2. Kodithuwakku Arachchige SNK, Chander H, Knight AC, and Turner AJ. The Effect of Minimalist Footwear Types on Static Postural Stability. *Proceedings of the American Society of Biomechanics Annual conference*, (online). August 10-13, 2021.
3. Turner, A, Chander, H, Knight, A, Chen, C, Pan, Z, & Arachchige, S. Hydrotherapy Vs. Land-Based Exercises On Dual Task Postural Control In A Geriatric Population. *Proceedings of the American Society of Biomechanics Annual conference*, (online). August 10-13, 2021.
4. Wilson, S.J., Hill, C.M., DeBusk, H., Simpson, J.D., Miller, B.L., Knight, A.C., Garner, J.C., Wade, C. & Chander, H. The Interaction of Cognitive Interference, Standing Surface, and Fatigue on Lower Extremity Muscle Activity. *Proceedings of the American Society of Biomechanics Annual Conference and World Congress of the International Society of Biomechanics (ISB)*, Calgary, Canada. July 31 – August 4, 2019.
5. Smidebush, M., Stewart, E.M., Knight, A.C., Chander, H. & Shapiro, R. Muscle activation analysis with kinematic comparison between wind-up and stretch pitching with respect to the upper and lower extremities. *Proceedings of the American Society of Biomechanics Annual Conference and World Congress of Biomechanics*, Rochester, Minnesota, August 8-11, 2018.
6. Wilson, S.J., Donahue, P.T., Williams, C.C., Hill, C.M., Luginsland, L., Waddell, D.E., Chander, H. & Garner, J.C. Lead leg recovery responses between individuals who fall and recover after an unexpected slip. *Proceedings of the American Society of Biomechanics Annual Conference and World Congress of Biomechanics*, Rochester, Minnesota, August 8-11, 2018.
7. Garner, J.C., Donahue, P.T., Williams, C.C., Hill, C., Luginsland, L., Waddell, D.E., Chander, H. & Wilson, S.J. Postural control measures between individuals who fall and recover after an unexpected slip. *Proceedings of the American Society of Biomechanics Annual Conference and World Congress of Biomechanics*, Rochester, Minnesota, August 8-11, 2018.
8. Hill, C.M., Wilson, S.J., Mouser, J.G. & Chander, H. Repeated motor control testing decreases co-contraction index in healthy young adults. *Proceedings of the American Society of Biomechanics Annual Conference and World Congress of Biomechanics*, Rochester, Minnesota, August 8-11, 2018.
9. Chander, H., Knight, A.C., Garner, J.C., Wade, C., DeBusk, H., Wilson, S.J., Gdovin, J.R., Hill, C.M. & Carruth, D.W. Muscle Activity during Postural Stability Tasks: Role of Military Footwear and Workload. *Proceedings of the American Society of Biomechanics Annual Conference*, Boulder CO, August 8-11, 2017.

10. Wilson, S.J., Chander, H., Knight, A.C., Garner, J.C., Wade, C., Luginsland, L., Hill, C.M., Gdovin, J.R., DeBusk, H. & Carruth, D.W. Lower extremity kinematics in military footwear during slip events. *Proceedings of the American Society of Biomechanics Annual Conference*, Boulder CO, August 8-11, 2017.
11. Luginsland, L., Chander, H., Wade, C., Garner, J.C., Eason, J.D., Wilson, S.J., Gdovin, J.R., Hill, C.M., Knight, A.C., Carruth, D.W. Influence of Occupational Footwear on Muscle Activity during a Simulated Extended Time-Duration. *Proceedings of the American Society of Biomechanics Annual Conference*, Boulder CO, August 8-11, 2017.
12. Hill, C.M., DeBusk, H., Wilson, S.J., Gdovin, J.R., Williams, C.C., Luginsland, L., Knight, A.C. and Chander, H. Influence of military type footwear and workload on co-contraction index in unilateral stance. *Proceedings of the American Society of Biomechanics Annual Conference*, Boulder CO, August 8-11, 2017.
13. Simpson, J.D., DeBusk, H., Hill, C.M., Miller, B.L., Knight, A.C. and Chander, H. Effect of military footwear type on ankle stability following a simulated military workload. *Proceedings of the American Society of Biomechanics Annual Conference*, Boulder CO, August 8-11, 2017.
14. Chander, H., Garner, J.C., Wade, C., Knight, A.C., Wilson, S.J. & Fu, Y.C. Human Balance in Occupational Footwear with an Extended Duration Workload. Abstracted: *Proceedings of the American Society of Biomechanics Annual Meeting*, Raleigh, NC, August 2-5, 2016.
15. DeBusk, H., Hill, C.M., Stewart, T., Miller, B.L., Simpson, J.D., Knight, A.C. & Chander, H. Impact of High Top Military Type Boots on Balance. Abstracted: *Proceedings of the American Society of Biomechanics Annual Meeting*, Raleigh, NC, August 2-5, 2016.
16. Hill, C.M., DeBusk, H., Stewart, T., Miller, B.L., Simpson, J.D., Knight, A.C. & Chander, H. Impact of Military Type Footwear and Workload on Co-Contraction Index in Static Balance. Abstracted: *Proceedings of the American Society of Biomechanics Annual Meeting*, Raleigh, NC, Aug 2-5, 2016.
17. Eason, J.D., Wilson, S.J., Gdovin, J.R., Williams, C.C., Hoke, E.L., Chander, H. & Garner, J.C. Effects of whole body vibration on maximal voluntary isometric contraction and percent muscle activation during balance perturbations. Abstracted: *Proceedings of the American Society of Biomechanics Annual Meeting*, Raleigh, NC, August 2-5, 2016.
18. Wilson, S.J., Gdovin, J.R., Williams, C.C., Eason, J.D., Chander, H. & Garner, J.C. Applications of Whole Body Vibration: Are Spinal Modifications Playing a Role? Abstracted: *Proceedings of the American Society of Biomechanics Annual Meeting*, Raleigh, NC, August 2-5, 2016.
19. Chander, H., Wade, C., Knight, A.C. & Garner, J.C. Lower Extremity Joint kinematics in Alternative Footwear during Slip Events. *Proceedings of the American Society of Biomechanics Annual Conference*, Columbus, OH Aug 5th -8th 2015.
20. Wilson, S.J., Chander, H., Morris, C.E., Garner, J.C., Waddell, D.E. & Wade, C. Alternative Footwear's Influence on Muscle Activation Patterns of the Lower Leg following a One Mile Walk. *Proceedings of the American Society of Biomechanics Annual Conference*, Columbus, OH Aug 5th -8th 2015.
21. Chander, H., Wade, C., Allen, C.R., Cazas, V.L., Lundahl, J. & Garner, J.C. Muscle Activity during Balance Perturbations in Occupational Footwear. *Proceedings of the American Society of Biomechanics Annual Conference and World Congress of Biomechanics*, Boston, MA, July 6-11, 2014.

International Conference on Applied Human Factors and Ergonomics

22. Burch, R. F., Strawderman, L., Piroli, A., Chander, H., Tian, W., & Murphy, F. (2019, July). The Importance of Baseline Division 1 Football Athlete Jumping Movements for Performance, Injury Mitigation, and Return to Play. In *International Conference on Applied Human Factors and Ergonomics* (pp. 332-344), Advances in Social and Occupational Ergonomics. AHFE 2019. Advances in Intelligent Systems and Computing, vol 970. Springer, Cham. https://doi.org/10.1007/978-3-030-20145-6_33

ASME International Mechanical Engineering Congress and Exposition:

23. Stranburg, T., Liu, Y., Chander, H. & Knight, A.C. (2018). Computational Design and Analysis of Nitinol-Based Arch Wedge Support. ASME 2018 Proceedings. Volume 13: Design, Reliability, Safety, and Risk, Paper No. IMECE2018-86287, pp. V013T05A001; 8 pages. Pittsburgh, Pennsylvania, USA, November 9–15, 2018. <https://doi.org/10.1115/IMECE2018-86287>

Human Factors and Ergonomics Society (HFES):

24. DeBusk, H., Babski-Reeves, K. & Chander, H. (2017). Preliminary Analysis of StrongArm® Ergoskeleton on Knee and Hip Kinematics and User Comfort. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*. Vol. 61, No. 1, pp. 1346-1350. Sage CA: Los Angeles, CA: SAGE Publications. <https://doi.org/10.1177/1541931213601820>

American College of Sports Medicine (ACSM):

25. Bailey C., Cagle G., Grozier C., Lehtola K., Weaver J., Wilson S., Chander H., Rendos N., & Simpson J. (2020). Gathering your 'sea legs': Extended durations in an offshore environment increases postural sway. *Medicine & Science in Sports & Exercise*, 52 (7S), 951.

26. Stewart, E.M., Simedebush, M., Simpson, J.D., Knight, A.C., Chander, H. & Shapiro, R. (2019). Quantification of Ground Reaction Forces for Skilled Versus Recreational Baseball Hitting: 2844 Board #1 May 31 3: 15 PM-5.15 PM. *Medicine & Science in Sports & Exercise*, 51(6), 780.
27. Wilson, S., Donahue, T., Hill, C., Williams, C., Simpson, J., Chander, H., ... & Pascal, J. (2019). Novel Evidence of Cortical Control in Severe Slip Responses: 2495: Board# 159 May 31 9: 30 AM-11: 00 AM. *Medicine & Science in Sports & Exercise*, 51(6), 689.
28. Pascal, J., Donahue, T., Hill, C., Williams, C., Simpson, J., Chander, H., ... & Johnson, A. (2019). Lead Leg Corrective Responses to Varying Slip Severity: 2491: Board# 155 May 31 9: 30 AM-11: 00 AM. *Medicine & Science in Sports & Exercise*, 51(6), 687.
29. Crawford, A. L., Donahue, T., Hill, C., Williams, C., Simpson, J., Chander, H., ... & Haynes, A. (2019). Examination of the Influence of Lead Leg Recovery Mechanics on Slip Induced Outcomes: 2490: Board# 154 May 31 9: 30 AM-11: 00 AM. *Medicine & Science in Sports & Exercise*, 51(6), 687.
30. Haynes, A., Donahue, T., Hill, C., Williams, C., Simpson, J., Chander, H., ... & Lewis, K. (2019). The Effects of Postural Control Measures on Induced Slip Outcomes: 2494: Board# 158 May 31 9: 30 AM-11: 00 AM. *Medicine & Science in Sports & Exercise*, 51(6), 688-689.
31. Sharp, D. W., Pace, M. T., Swain, J. C., Albino, R. T., Green, J. M., Killen, L. G., ... Chander, H & O'Neal, E. K. (2019). Minimalist Style Military Boot Does Not Improve Walking Economy Under Load In Trained Males: 3486: Board# 174 June 1 8: 00 AM-9: 30 AM. *Medicine & Science in Sports & Exercise*, 51(6), 958-959.
32. O'Neal, E. K., Pace, M. T., Swain, J. C., Albino, R. T., Green, J. M., Killen, L. G., ... & Chander, H. (2019). Minimalist Style Military Boot Improves Running Economy Under Load In Trained Males: 1042: Board# 276 May 29 2: 00 PM-3: 30 PM. *Medicine & Science in Sports & Exercise*, 51(6), 276-277.
33. Price, F. G., Turner, A., Krings, B., Waldman, H., Chander, H., Knight, A., ... & McAllister, M. (2019). Can High Intensity Interval Training Effect Division I College 800/1500m Runner's Performance: 797: Board# 31 May 29 2: 00 PM-3: 30 PM. *Medicine & Science in Sports & Exercise*, 51(6), 195.
34. Morris, C.E., Winchester, L.J., Hussey, A.J., Tomes, A.S., Neal, W.A., Wilcoxon, D.M., Anderson, M.N., Bradshaw, W.J., Lucas, D.N., Chander, H. & Arnett, S.W. Effect of a Simulated Tactical Occupation Stressor on Physiological Strain Index and Blood Pressure. *American College of Sports Medicine Annual Meeting*, Minneapolis, MN, May 29 – June 2, 2018.
35. Neal, W.A., Morris, C.E., Winchester, L.J., Hussey, A.J., Tomes, A.S., Wilcoxon, D.M., Anderson, M.N., Lucas, D.N., Chander, H. & Arnett, S.W. Effect of a Simulated Tactical Occupation Stressor on Perceived Exertion and Blood Lactate. *American College of Sports Medicine Annual Meeting*, Minneapolis, MN, May 29 – June 2, 2018.
36. Tomes, A.S., Morris, C.E., Winchester, L.J., Hussey, A.J., Neal, W.A., Wilcoxon, D.M., Anderson, M.N., Bradshaw, W.J., Lucas, D.N., Chander, H. & Arnett, S.W. Effect of a Simulated Tactical Occupation Stressor on Immune System Markers of Physiological Stress and Inflammation. *American College of Sports Medicine Annual Meeting*, Minneapolis, MN, May 29 – June 2, 2018.
37. Hussey, A.J., Morris, C.E., Winchester, L.J., Neal, W.A., Tomes, A.S., Wilcoxon, D.M., Anderson, M.N., Bradshaw, W.J., Lucas, D.N., Chander, H. & Arnett, S.W. Effect of a Simulated Tactical Occupation Stressor on Reaction Time. *American College of Sports Medicine Annual Meeting*, Minneapolis, MN, May 29 – June 2, 2018.
38. Wiczynski, T.L., Morris, C.E., Chander, H., Garner, J.C., DeBusk, H., Owens, S.G., Valliant, M.W. & Loftin, M. The Relationship of Weight Loss and Balance Performance Following an Exercise Intervention in Previously Sedentary Overweight Adults. *Medicine & Science in Sports & Exercise* 49 (5S), 926-927, 2017.
39. Morris, C.E., Chander, H., Garner, J.C., DeBusk, H., Owens, S.G., Valliant, M.W. & Loftin, M. Evaluating Perturbations to Human Balance Following an Exercise Intervention in Previously Sedentary, Overweight Adults. *Medicine & Science in Sports & Exercise* 49 (5S), 655, 2017.
40. Dispennette, A.K., Morris, C.E., Chander, H., Garner, J.C., DeBusk, H., Owens, S.G., Valliant, M.W. & Loftin, M. Impact of an Exercise Intervention on Human Balance Center of Pressure Sway Parameters in Previously Sedentary, Overweight Adults. *Medicine & Science in Sports & Exercise* 49 (5S), 657, 2017.
41. Garner, J.C., Chander, H., Morris, C.E., Wilson, S.J. & Wade, C. Impact of Alternative Footwear on Balance Perturbations. *Medicine & Science in Sports & Exercise* 47 (5S), 250-251, 2015.
42. Wilson, S.J., Chander, H., Morris, C.E., Wade, C. & Garner, J.C. Alternative Footwear's Influence on Static Balance Following a One Mile Walk. *Medicine & Science in Sports & Exercise* 47 (5S), 292, 2015.
43. DeBusk, H., Chander, H., Morris, C.E., Wilson, S.J., Knight, A.C., Holmes, M.E., Hill, C.M., Wade, C. & Garner, J.C. The Effect of Commonly Used Alternative Footwear on Balance. *Medicine & Science in Sports & Exercise* 47 (5S), 294, 2015.
44. Hill, C.M., Chander, H., Morris, C.E., Wilson, S.J., Knight, A.C., Holmes, M.E., DeBusk, H., Wade, C. & Garner, J.C. Impact of Low Intensity Workload on Muscle Exertion in Alternative Footwear. *Medicine & Science in Sports & Exercise* 47 (5S), 251, 2015.
45. Dabbs, N.C., Chander, H., Black, C.D., Loftin, M., Valliant, M., Brown, L.E. & Garner, J.C. Effects of Whole Body Vibration on Voluntary Torque Following Exercise Induced Muscle Damage in Recreationally Trained Females. *Medicine & Science in Sports & Exercise*, 47(5S), 355, 2015.

46. Cazas-Moreno, V. L., Chander, H., Allen, C. R., Garner, J. C., Gdovin, J. R., & Williams, C. C. (2015). The Influence of Whole-body Vibration on Rate of Force Development during an Isometric Clean Pull. *Medicine & Science in Sports & Exercise*, 47(5S), 782, 2015.
47. Garner, J.C., Chander, H., Wade, C., Dabbs, N.C., Allen, C.R., Cazas, V.L., Lundahl, J., Borland, C.E. The Influence of Occupational Footwear on Lower Extremity Muscle Activity during Balance Perturbations. *Medicine and Science in Sports and Exercise* 46 (5), 692-692, 2014.

National Strength Conditioning Association (NSCA):

48. Wilson, S.J., Gdovin, J.R., Williams, C.C., Eason, J.D., Luginland, L., Hill, C.M., Donahue, P.T., Hoke, E.L., Chander, H., Garner, J.C. More Than a Foot Wedge – Golf Footwear and Postural Control. Abstracted: *Journal of Strength & Conditioning Research*, 30(5), 2017.
49. Garner, J.C., Wilson, S.J., Gdovin, J.R., Williams, C.C., Eason, J.D., Hoke, E.L., Hill, C.M. & Chander, H. The Influence of Golf Specific Footwear on Postural Equilibrium and Latencies. Abstracted: *Journal of Strength & Conditioning Research*, 30(5), 2017.
50. Dabbs, N.C., Chander, H., Moreno, V.L., Brown, L.E. & Garner, J.C. Effects of Whole Body Vibration on Muscle Activity during Maximal Voluntary Isometric Contraction Following Exercise Induced Muscle Damage. *NSCA Annual Meeting*, Las Vegas, NV, July 9-12, 2014. *Journal of Strength and Conditioning Research*, Vol 28, (12), 82, Dec 2014.
51. Moreno, V.L., Chander, H., MacDonald, C.J., Dabbs, N.C., Allen, C.R., Lamont, H.S. & Garner, J.C. Differences in Reaction Time between Female Collegiate Athletes. *NSCA Annual Meeting*, Las Vegas, NV, July 9-12, 2014. *Journal of Strength and Conditioning Research*, Vol 28, (12), 90, Dec 2014.
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Gait and Clinical Movement Analysis Society (GCMAS):

53. Chander, H., Garner, J.C., Wade, C. & Knight, A.C. Impact of Alternative Footwear on Lower Extremity Muscle Activity during Normal and Slippery Gait. *Annual Proceedings of the Gait and Clinical Movement Analysis Society*. Memphis, TN, May 17-20, 2016.

International Society of Posture and Gait Research (ISPGR):

54. Waddell, D.E., Chander, H., Brewer, C.B. Exploring measures to better assess the effect of cold on dynamic balance in a young and older female population. *International Society for Posture & Gait Research. 2014 ISPGR World Congress*, Vancouver, Canada, June 29-July 3, 2014.

South East and South West American College of Sports Medicine (SEACSM and SWACSM):

55. Turner, A, Chander, H, Kodithuwakku Arachchige, SNK, Knight, A, Wade, C, & Garner, JC. Sensory Organization Test Conditions Influence Postural Strategy rather than Footwear or Workload. Southeast American College of Sports Medicine Annual Meeting, Greenville SC. February 17-19, 2022. Oral Presentation.
56. Kodithuwakku Arachchige SNK, Chander H, Freeman H, Hill C, Hudson C, Turner A, Jones A, & Knight A. The Walls Are Closing In: Postural Responses To A Virtual Claustrophobic Simulation. Southeast American College of Sports Medicine Annual Meeting, Greenville SC. February 17-19, 2022.
57. Kodithuwakku Arachchige SNK, Chander H, Turner A, and Knight A. Impact of Prolonged Exposure to Slippery Surface on Static Postural Stability. *Southeast American College of Sports Medicine Annual Meeting, Online, February 17-18, 2021.*
58. Ramsey L, Kodithuwakku Arachchige SNK, Turner AJ., Chander H., and Knight AC. Using Virtual Reality to Recreate the Classical "Moving Room" Experiment to Assess Postural Control. *Southeast American College of Sports Medicine Annual Meeting, Online, February 17-18, 2021.*
59. Derby H, Gourley K, Kirk K, Kodithuwakku Arachchige SNK, Turner A, Chander H, and Knight A. Influence of an Athletic Shoe with a Compression Sock on Static Balance. *Southeast American College of Sports Medicine Annual Meeting, Online, February 17-18, 2021.*
60. Freeman H, Chander H, Turner AJ, Kodithuwakku Arachchige SNK, Knight AC, Wade C, and Garner JC. Role of Occupational Footwear and Workload on Lower Extremity Muscle Activation During Maximal Exertions and Postural Stability Tasks. *Southeast American College of Sports Medicine Annual Meeting, Online, February 17-18, 2021.*
61. Turner A, Chander H, Knight A, Kodithuwakku Arachchige SNK, Pan Z, Chen CC. Hydrotherapy vs. Land-Based Exercises on Dual-Task Static and Dynamic Balance in a Geriatric Population. *Southeast American College of Sports Medicine Annual Meeting, Online, February 17-18, 2021.*
62. Turner AJ, Chander H, Knight AC, Chen C, Pan Z, Kodithuwakku Arachchige SNK. The effects of hydrotherapy versus land-based exercises on dual-task postural control in a geriatric population. South East American College of Sports Medicine Annual Conference, Jacksonville, FL, February 13-15, 2020.

63. Chander H, Kodithuwakku Arachchige SNK, Turner A, Deb S, Shojaei A, Hudson C, Knight A, and Carruth D. Impact of Virtual Reality Generated Construction Environments at Different Heights on Postural Stability. *Southeast American College of Sports Medicine Annual Meeting*, Jacksonville, FL, February 13th-15th, 2020.
64. Arnett, J.E., Simpson, J.D., Cosio-Lima, L., Lee, Y., Rendos, N.K., Stewart, E.M., Chander, H., & Knight, A.C. Ground reaction forces during single-leg drop landings on an inverted surface. *Southeast American College of Sports Medicine Annual Conference*. Greenville, SC. February 14-16, 2019.
65. Simpson, J.D., Stewart, E.M., Turner, A.J., Rendos, N.K., Lee, Y., Cosio-Lima, L., Chander, H., Knight, A.C. Chronic ankle instability alters spatiotemporal postural control during a lateral step-down test. *Southeast American College of Sports Medicine Annual Conference*. Greenville, SC. February 14-16, 2019.
66. Grammer, E.E., Simpson, J.D., Cosio-Lima, L., Lee, Y., Rendos, N.K., Stewart, E.M., Chander, H., Knight, A.C. Latency of the peroneus longus and peroneus brevis during unexpected and expected inversion perturbations. *Southeast American College of Sports Medicine Annual Conference*. Greenville, SC. February 14-16, 2019.
67. Lewis, J.T., Simpson, J.D., Rendos, N.K., Lee, Y., Cosio-Lima, L., Stewart, E.M., Chander, H., Knight, A.C. Assessment of ankle muscle activity during unexpected and expected inversion perturbations. *Southeast American College of Sports Medicine Annual Conference*. Greenville, SC. February 14-16, 2019.
68. Simpson, J., Rendos, N., Stewart, E., Koldenhoven, R., Macias, D., Wilson, S., Chander, H., & Knight, A.C. Anticipating inversion perturbations during drop landings results in frontal plane kinematic alterations. *International Ankle Symposium*, Amsterdam, The Netherlands. October 3-4, 2019.
69. Turner, A.J., Chander, H., Morris, C.E., Wilson, S.J., Buckner, M., Knight, A.C., Wade, C. & Garner, J.C. Postural Strategy during Sensory Organization Test when Exposed to Alternative Footwear and Workload. *Southeast American College of Sports Medicine*, Greenville, SC, 2019.
70. Kodithuwakku Arachchige, S.N.K., Chander, H., Knight, A.C., Wilson, S.J., Wade, C., Garner, J.C. & Carruth, D.W. Ground reaction forces during slip events: Impact of military footwear and load carriage. *South East American College of Sports Medicine Annual Conference*, Greenville, SC. February 14-16, 2019
71. Stewart, E.M., Smidebush, M., Simpson, J.D., Knight, A.C., Chander, H. & Shapiro, R. Analysis of the start times for the swing phases for baseball hitters of varying skill. *Southeast American College of Sports Medicine Annual Conference*, Chattanooga, TN. February 15-17, 2018.
72. Simpson, J.D., Stewart, E.M., Smidebush, M., Knight, A.C., Chander, H. & Shapiro, R. Analysis of vertical ground reaction forces during the baseball swing in hitters of different skill level. *Southeast American College of Sports Medicine Annual Conference*, Chattanooga, TN. February 15-17, 2018.
73. Price, F.G., Turner, A.J., Krings, B.M., Waldman, H.S., Chander, H., Knight, A.C., McAllister, M.J. & Smith, J.W. Impact of high-intensity interval training on division I college 800m/1500m runner's performance. *Southeast American College of Sports Medicine Annual Conference*, Chattanooga, TN. February 15-17, 2018.
74. Tomes, A.S., Morris, C.E., Winchester, L.J., Hussey, A.J., Neal, W.A., Wilcoxon, D.M., Anderson, M.N., Bradshaw, W.J., Lucas, D.N., Chander, H. & Arnett, S.W. Effect of a Simulated Tactical Occupation Stressor on Immune System Markers of Physiological Stress and Inflammation. *Southeast American College of Sports Medicine Annual Conference*, Chattanooga, TN. February 15-17, 2018.
75. Wilcoxon, D.M., Morris, C.E., Winchester, L.J., Hussey, A.J., Neal, W.A., Tomes, A.S., Anderson, M.N., Bradshaw, W.J., Lucas, D.N., Chander, H. & Arnett, S.W. Effect of a Simulated Tactical Occupation Stressor on Physiological Strain Index And Blood Pressure. *Southeast American College of Sports Medicine Annual Conference*, Chattanooga, TN. February 15-17, 2018.
76. Hussey, A.J., Morris, C.E., Winchester, L.J., Neal, W.A., Tomes, A.S., Wilcoxon, D.M., Anderson, M.N., Bradshaw, W.J., Lucas, D.N., Chander, H. & Arnett, S.W. Effect of a Simulated Tactical Occupation Stressor on Reaction Time. *Southeast American College of Sports Medicine Annual Conference*, Chattanooga, TN. February 15-17, 2018.
77. Neal, W.A., Morris, C.E., Winchester, L.J., Hussey, A.J., Tomes, A.S., Wilcoxon, D.M., Anderson, M.N., Bradshaw, W.J., Lucas, D.N., Chander, H. & Arnett, S.W. Effect of a Simulated Tactical Occupation Stressor on Perceived Exertion. *Southeast American College of Sports Medicine Annual Conference*, Chattanooga, TN. February 15-17, 2018.
78. Sutton, P.E., Chander, H., Knight, A.C., Turner, A.J., Garner, J.C., Wade, C. & Carruth, D.W. Co-Contraction Index of Lower Extremity Muscles During Multiple Slip Events: Role of Footwear. *Southeast American College of Sports Medicine Annual Conference*, Chattanooga, TN. February 15-17, 2018.
79. Turner, A.J., Hill, C.M., DeBusk, H., Chander, H., Knight, A.C., Wilson, S.J., Williams, C.C. & Luginsland, L. Impact of Military Type Footwear and Workload on Percent Muscle Activation in Unilateral Static Balance. *Southeast American College of Sports Medicine Annual Conference*, Chattanooga, TN. February 15-17, 2018.
80. Shepherd, B.D., Krings, B.M., Williamson, P.L., Swain, J.C., Turner, A.J., Waldman, H.S., Chander, H., McAllister, M.J., Smith, J.W. & Knight, A.C. Effects of Fat Gripz™ on Muscle Activity and Performance during Deadlift and Bent-Over Row Exercises. *Southeast American College of Sports Medicine Annual Conference*, Chattanooga, TN. February 15-17, 2018.
81. Hill, C.M., Wilson, S.J., Mouser, J.G., Williams, C.C., Luginsland, L., Donahue, P.T., Chander, H. Impact of Repeated Balance Perturbations on Lower Extremity Mean Muscle Activity. *Southeast American College of Sports Medicine Annual Conference*, Chattanooga, TN. February 15-17, 2018.

82. Wilson, S.J., Hill, C.M., Mouser, J.G., Williams, C.C., Luginsland, L., Donahue, P.T., Garner, J.C., Chander, H. Can Postural Responses Be Learned? *Southeast American College of Sports Medicine Annual Conference*, Chattanooga, TN. February 15-17, 2018.
83. Garner JC, Hill CM, Wilson SJ, Mouser JG, Williams CC, Luginsland LA, Donahue PT, Chander H. Influence of Repeated Motor Control Tests on Proximal Lower Extremity Musculature Activation. *Southeast American College of Sports Medicine Annual Conference*, Chattanooga, TN. February 15-17, 2018.
84. Simpson, J.D., Miller, B.L., O'Neal, E.K., Chander, H. & Knight, A.C. Analysis of Landing Kinetics During a Drop Vertical Jump After Three Weeks of External Load Training. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, Feb 16-18, 2017.
85. Forge, S.R., Simpson, J.D., Miller, B.L., O'Neal, E.K., Chander, H. & Knight, A.C. Changes in Jumping Kinetics Following Three Weeks of External Load Training in Well-Trained Women. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, Feb 16-18, 2017.
86. Sutton, P., Forge, S.R., Mosby, A., McDaniel, J., Miller, B.L., Simpson, J.D., Chander, H. & Knight, A.C. Three-Week External Load Training Does Not Improve Vertical Jump and Sprint Performance in Well-Trained Women *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, Feb 16-18, 2017.
87. Mosby, A., Sutton, P., Forge, S.R., McDaniel, J., Miller, B.L., Simpson, J.D., Chander, H. & Knight, A.C. Three-Weeks of External Load Training Does Not Alter Muscle Activity During Static Balance. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, Feb 16-18, 2017.
88. McDaniel, J., Forge, S.R., Sutton, P., Mosby, A., Miller, B.L., Simpson, J.D., Chander, H. & Knight, A.C. Three Week External Load Training Does Not Increase Lower Extremity Muscle Activation in Well-Trained Females. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, Feb 16-18, 2017.
89. Swain, J.C., Miller, B.L., Pace, M.T., Lowell, R.K., Simpson, J.D., Knight, A.C. & Chander, H. Impact of Minimalist Footwear Type and Fatigue on Balance. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, Feb 16-18, 2017.
90. Turner, A.J., DeBusk, H., Lowell, R.K., Hill, C.M., Miller, B.L., Simpson, J.D., Knight, A.C. & Chander, H. Effects of Military Type Footwear and Workload on Unilateral Static Balance. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, Feb 16-18, 2017.
91. Miller, B.L., Simpson, J.D., Swain, J.C., Pace, M.T., Lowell, R.K., Pan, Z., Knight, A.C. & Chander, H. Effect of Minimalist Footwear and Fatigue on Static Balance. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, Feb 16-18, 2017.
92. Dispennette, A.K., Morris, C.E., Chander, H., Garner, J.C., DeBusk, H., Owens, S.G., Valliant, M.W. & Loftin, M. Impact of an Exercise Intervention on Human Balance Center of Pressure Sway Parameters in Previously Sedentary, Overweight Adults. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, Feb 16-18, 2017.
93. Eason, J.D., Wilson, S.J., Gdovin, J.R., Williams, C.C., Hoke, E.L., Luginsland, L., Hill, C.M., Donahue, P.T., Chander, H., Wade, C. & Garner, J.C. The Effects of Golf Shoe Type on Balance Equilibrium Scores. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, Feb 16-18, 2017.
94. Gdovin, J.R., Wilson, S.J., Williams, C.C., Eason, J.D., Hoke, E.L., Luginsland, L., Hill, C.M., Donahue, P.T., Davis, R.E., Chander, H., Wade, C. & Garner, J.C. The Acute Effects of Golf Specific Footwear on Reaction Time Latencies. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, Feb 16-18, 2017.
95. Hoke, E.L., Wilson, S.J., Gdovin, J.R., Williams, C.C., Eason, J.D., Luginsland, L., Hill, C.M., Donahue, P.T., Chander, H., Wade, C., Green, M. & Garner, J.C. Acute Effects of Golf Specific Footwear on Bilateral Balance. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, Feb 16-18, 2017.
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97. Morris, C.E., Chander, H., Garner, J.C., DeBusk, H., Owens, S.G., Valliant, M.W. & Loftin, M. Evaluating Perturbations to Human Balance Following an Exercise Intervention in Previously Sedentary, Overweight Adults. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, Feb 16-18, 2017.
98. Pearson, R.C., Morris, C.E., Chander, H., Wilson, S.J., Loftin, M., Wade, C. & Garner, J.C. Impact of Alternative Footwear on Human Energy Expenditure. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, Feb 16-18, 2017.
99. Wiczynski, T.L., Morris, C.E., Chander, H., Garner, J.C., DeBusk, H., Owens, S.G., Valliant, M.W. & Loftin, M. The Relationship of Weight Loss and Balance Performance Following an Exercise Intervention in Previously Sedentary Overweight Adults. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, Feb 16-18, 2017.
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102. Chander, H., Garner, J.C., Wade, C., Knight, A.C., DeBusk, H. & Hill, C.M. (2016). Lower Extremity Muscle Activity in Alternative Footwear During Slip Events: A Preliminary Analysis. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, February 18th - 20th, 2016.
103. DeBusk, H., Hill, C.M., Stewart, T., Miller, B.M., Simpson, J.D., Knight A.C. & Chander, H. Effects of Military Type Footwear and Workload on Static Balance. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, February 18th - 20th, 2016.
104. Hill, C.M., DeBusk, H., Stewart, T., Simpson, J.D., Miller, B.L., Knight, A.C. & Chander, H. Impact Of Military Type Footwear and Workload on Muscle Activity in Static Balance. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC February 18-20, 2016.
105. Miller, B.L., DeBusk, H., Hill, C.M., Stewart, T., Simpson, J.D., Knight, A.C. & Chander, H. (2016). Impact of Military Boot Type and Physical Work Load on Dynamic Balance. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, February 18th - 20th, 2016.
106. Simpson, J.D., Hill, C.M., DeBusk, H., Stewart, T., Miller, B.L., Knight, A.C. & Chander, H. Influence of Military Boot Types and Physiological Workload on Lower Extremity Muscle Activation. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, February 18th - 20th, 2016.
107. Stewart, T., Kimble, A., Brown, J., Holmes, M.E., Chander, H. & Knight, A.C. Effects of event specialty, Gender and leg dominance on running kinetics of high school track and field athletes. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, February 18th - 20th, 2016.
108. Wilson, S.J., Chander, H., Wade, C., Cazas-Moreno, V.L., Gdovin, J.R., Williams, C.C. & Garner, J.C. Ankle Kinematics in Alternative Footwear during Slip Events. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, February 18th - 20th, 2016.
109. Gdovin, J.R., Chander, H., Wade, C., Wilson, S.J., Cazás-Moreno, V.L., Williams, C.C. & Garner, J.C. Occupational Footwear's Effect on Balance. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, February 18th - 20th, 2016.
110. Williams, C.C., Chander, H., Wade, C., Wilson, S.J., Cazás-Moreno, V.L., Gdovin, J.R. & Garner, J.C. Footwear Design Characteristic's Impact on Lower Extremity Muscle Activity. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, February 18th - 20th, 2016.
111. Chander, H., Morris, C.E., Wilson, S.J., Knight, A.C., Holmes, M.E., Wade, C. & Garner, J.C. Impact of Alternative Footwear on Balance Perturbations. *Southeast American College of Sports Medicine Annual Conference*, Jacksonville, FL, February 12-14, 2015.
112. Wilson, S.J., Chander, H., Morris, C.E., Wade, C. & Garner, J.C. Alternative Footwear's Influence on Static Balance Following a One Mile Walk. *Southeast American College of Sports Medicine Annual Conference*, Jacksonville, FL, February 12-14, 2015.
113. DeBusk, H., Chander, H., Morris, C.E., Wilson, S.J., Knight, A.C., Holmes, M.E., Hill, C.M., Wade, C. & Garner, J.C. The Effect of Commonly Used Alternative Footwear on Balance. *Southeast American College of Sports Medicine Annual Conference*, Jacksonville, FL, February 12-14, 2015.
114. Hill, C.M., Chander, H., Morris, C.E., Wilson, S.J., Knight, A.C., Holmes, M.E., DeBusk, H., Wade, C. & Garner, J.C. Impact of Low Intensity Workload on Muscle Exertion in Alternative Footwear. *Southeast American College of Sports Medicine Annual Conference*, Jacksonville, FL, February 12-14, 2015.
115. Kimble, A., Brown, J., Stewart, T., Chander, H., Holmes, M.E. & Knight, A.C. Influence of Event, Gender, and Leg Dominance on Balance among 1 High School Track and Field Athletes. *Southeast American College of Sports Medicine Annual Conference*, Jacksonville, FL, February 12-14, 2015.
116. Stewart, T., Brown, J., Kimble, A., Chander, H., Holmes, M.E. & Knight, A.C. Influence of Event, Gender, and Leg Dominance on Balance among 1 High School Track and Field Athletes. *Southeast American College of Sports Medicine Annual Conference*, Jacksonville, FL, February 12-14, 2015.

Mid-South Biomechanics Conference:

117. Kodithuwakku Arachchige SNK, Chander H, Knight AC, Chen C, Pan Z, Turner AJ. Impact of foot arch type, quadriceps angle, and minimalist footwear on static postural stability. *Footwear Science*. Mid-South Biomechanics Conference, Memphis, TN. February 20-21, 2020.
118. Turner AJ, Chander H, Knight AC, Chen C, Pan Z, Kodithuwakku Arachchige SNK. The effects of hydrotherapy versus land-based exercises on dual-task postural control in a geriatric population. *Mid-South Biomechanics Conference*, Memphis, TN, February 20-21, 2020.
119. Freeman H, Chander H, Kodithuwakku Arachchige SNK, Turner AJ, Knight AC, Wade C, Garner JC. Impact of Alternative Footwear on Lower Extremity Muscle Activation during Normal Gait, Unexpected, Alert and Expected Slips. *Mid-South Biomechanics Conference*, Memphis, TN, February 20-21, 2020
120. Turner, A.J., Chander, H., Morris, C.E., Wilson, S.J., Buckner, M., Knight, A.C., Wade, C. & Garner, J.C. Postural Strategy during Sensory Organization Test when Exposed to Alternative Footwear and Workload. *Mid-South Biomechanics Conference*, Memphis, TN. February 21-22, 2019.
121. Kodithuwakku Arachchige, S.N.K., Chander, H., Knight, A.C., Wilson, S.J., Wade, C., Garner, J.C. & Carruth, D.W. Ground reaction forces during slip events: Impact of military footwear and load carriage. *Mid-South Biomechanics Conference*, Memphis, TN. February 21-22, 2019.

122. Sutton, P.E., Chander, H., Knight, A.C., Turner, A.J., Garner, J.C., Wade, C. & Carruth, D.W. Co-Contraction Index of Lower Extremity Muscles During Multiple Slip Events: Role of Footwear. *Mid-South Biomechanics Conference*, Memphis, TN. February 22-23, 2018.
123. Turner, A.J., Hill, C.M., DeBusk, H., Chander, H., Knight, A.C., Wilson, S.J., Williams, C.C. & Luginsland, L. Impact of Military Type Footwear and Workload on Percent Muscle Activation in Unilateral Static Balance. *Mid-South Biomechanics Conference*, Memphis, TN. February 22-23, 2018.
124. Hill, C.M., Wilson, S.J., Mouser, J.G., Williams, C.C., Luginsland, L., Donahue, P.T., Chander, H. Impact of Repeated Balance Perturbations on Lower Extremity Mean Muscle Activity. *Mid-South Biomechanics Conference*, Memphis, TN. February 22-23, 2018.
125. Stewart, E.M., Smidebush, M., Simpson, J.D., Knight, A.C., Chander, H. & Shapiro, R. Analysis of the start times for the swing phases for baseball hitters of varying skill. *Mid-South Biomechanics Conference*, Memphis, TN. February 22-23, 2018.
126. Kodithuwakku Arachchige, S.N.K., Chander, H., Knight, A.C. & Pan, Z. Impact of foot arch type and quadriceps angle on postural stability: A comparison of two types of Vibram™ Minimalist Footwear. *Mid-South Biomechanics Conference*, Memphis, TN. February 22-23, 2018.

Applied Ergonomics Conference:

127. Chander, H., Stewart, E.M., Saucier, D., Nguyen, P., Luczak, T., Ball, J.E., Knight, A.C., Smith, B.K., Burch, R.F.V., Prabhu, R.K. The Use of Stretch Sensors in Detecting Ankle Joint Kinematics during Slips and Trips. The 23rd Annual *Applied Ergonomics Conference*, Louisville, KY, 2020.
128. Deb, S., Chander, H., Shojaei, A., Kodithuwakku Arachchige, S.N.K., Hudson, C., Knight, A.C. & Carruth, D.W. Impact of Virtual Reality (VR)-Induced Visual Perturbations on Postural Stability and Fall Risk. The 23rd Annual *Applied Ergonomics Conference*, Louisville, KY, 2020.
129. Burch, R.F.V., Luczak, T., Ball, J.E., Chander, H., Knight, A.C., Smith, B.K., Burch, R.F.V., Prabhu, R.K. Closing the Wearable Gap: Replacing Goniometers and (Eventually) 3D Motion Capture with Stretchable Soft Robotic Sensors. The 23rd Annual *Applied Ergonomics Conference*, Louisville, KY, 2020.
130. Shelly, Z., Burch, R.F.V., Strawderman, L., Chander, H. & May, D. Helmet Prototype Response Time Assessment Using NCAA Division 1 Collegiate Football Athletes. The 23rd Annual *Applied Ergonomics Conference*, Louisville, KY, 2020.

Mississippi Academy of Sciences Conference:

131. Kodithuwakku Arachchige SNK, Chander H, Knight AC, and Turner AJ. The Effect of Minimalist Footwear Types on Static Postural Stability. *85th Annual Mississippi Academy of Sciences conference*, Biloxi, MS. August 5-6, 2021.