

Publications:

- [23] Schwartz B, Shivgulam M, Petterson J, Wu Y, **Frayne RJ**, Kimmerly DS, O'Brien M. (2023 April). More moderate-intensity physical activity and less prolonged sedentary time are associated with better very short-term systolic blood pressure variability in healthy adults. *Journal of Human Hypertension*. (Accepted)
- [22] Pellerine, L, Petterson, J, Shivgulam, M, Johansson, P, Hettiarachchi, P, Kimmerly, D, **Frayne RJ**, O'Brien, M. (2023, March). Step Length, but not stepping cadence, strongly predicts physical activity intensity during jogging and running. *Measurement in Physical Education and Exercise Science*. (Accepted)
- [21] *Daley WS, O'Brien, MW, Schwartz BD., Shivgulam ME., Wu,Y, Kimmerly DS & **Frayne RJ**. (2023, January). Characterization of Detailed Sedentary Postures Using a Monitor ActivPAL Configuration in Free-Living Conditions. *Sensors*.
- [20] O'Brien, M, Petterson J, Pellerine L, Shivgulam M, Kimmerly DS, **Frayne RJ**, Hettiarachchi, P, Johansson, P, (2023, January). Moving beyond the characterization of activity intensity bouts as square wave signals. *Journal of the Measurement of Physical Behaviour* (Accepted)
- [19] O'Brien M, Shivgulam M, Petterson J, Wu Y, **Frayne RJ**, Mekari S, Kimmerly DK. (2022). Habitual sedentary time and stationary time are inversely related to aerobic fitness. *Sports Medicine and Health Science*. doi:10.1016/j.smhs.2022.10.002
- [18] O'Brien M, Shivgulam M, Petterson J, Wu Y, Johns J, **Frayne RJ**, Kimmerly DK. (2022). Substituting stationary time with moderate-intensity activity may improve brachial flow-mediated dilation: An isotemporal substitution approach. *Journal of Cardiopulmonary Rehabilitation and Prevention*.
- [17] O'Brien M, John J, **Frayne RJ**, Kimmerly DS. (2022). Comparison of Habitual Stepping Cadence Analysis Methods: Relationship with Step counts. *Gait and Posture*, 92, 328-332. doi:10.1016/j.gaitpost.2021.12.006
- [16] MacLean, K, Neyedli, H, Dewis, C & **Frayne, RJ**. (2022). The role of at home workstation ergonomics and gender on musculoskeletal pain. *work*, 71(4), 1-10. doi:0.3233/WOR-210692
- [15] Shivgulam ME, O'Brien MW, Johns JA, Petterson JL, Wu Y, **Frayne RJ**, Kimmerly DS. (2021). Impact of habitual sedentary patterns on popliteal artery endothelial-dependent vasodilation in healthy adults. *Vascular Medicine*.
- [14] O'Brien MW, Wu Y, Petterson JL, **Frayne RJ**, Kimmerly DS. (2021). Ecological Validity of Prolonged Sitting Studies – How Well Do They Represent Real Life Sedentary Patterns?. *Translational Journal of ACSM*. doi:10.1249/tjx.0000000000000182
- [13] O'Brien MW, Al-Hinnawi A, Wu Y, Petterson JL Johns JA, **Frayne RJ**, Kimmerly DS. (2021). The Influence of Habitual Sedentary Time and Patterns on Cardiovascular Baroreflex Function. *Journal of Applied Physiology, Nutrition, and Metabolism*.

- [12] Goreham J, Bugeya Miller K, **Frayne RJ**, Ladouceur M. (2021). Pacing strategies and relationships between velocity and stroke parameters for elite sprint kayakers in single boats. *Journal of Sports Sciences*.
- [11] Worner T, **Frayne RJ**, Magnusson T, Eek F. (2021). The Perceived Demands of Ice Hockey Goaltending Movements on the Hip and Groin Region: An Elite Coach and Player Perspective. *Orthopaedic Journal of Sports Medicine*, 9(11). doi:10.1177/23259671211055699
- [10] Johns J., **Frayne RJ**, Goreham JA, Kimmerly DK, O'Brien M. (2020). The Bout Cadence Method Improves the Quantification of Stepping Cadence In Free-Living Conditions. *Gait & Posture*, 79. doi:10.1016/j.gaitpost.2020.04.014
- [9] O'Brien MW, Johns JA, Dorey TW, **Frayne RJ**, Fowles JR, Mekary S, Kimmerly DS. (2020). Meeting International Aerobic Physical Activity Guidelines Improves Cardiovascular Baroreflex Sensitivity in Healthy Older Adults. *Clinical Autonomic Research*, 30, 139-148.
- [8] O'Brien MW, Robinson SA, **Frayne RJ**, Mekary S, Fowles JR, Kimmerly DK. (2018). Achieving Canadian Physical Activity Guidelines is Associated with Improved Vascular Function Independent of Aerobic Fitness and Sedentary Time in Older Adults. *Applied Physiology, Nutrition, and Metabolism*, 43(10), 1003-1009.
- [7] Kelleher L, **Frayne RJ**, Beach TAC, Higgs JM, Johnson AM, Dickey JP. (2017). Relationship between the functional movement screen score and Y-balance test reach distances. *International journal of human movement and sports sciences*, 5(3), 51-56.
- [6] **Frayne RJ**, Dickey JP. (2017). Quantifying ice hockey goaltender leg pad kinematics and the effect that different leg pad styles have on performance. *Sports Engineering*, 20(4), 267-274. doi:10.1007/s12283-017-0235-0
- [5] **Frayne RJ**, Kelleher L, Wegscheider P, Dickey JP. (2015). Development and verification of a kinematic protocol to quantify hip joint kinematics: an evaluation of ice hockey goaltender pads on hip motion. *American Journal of Sports Medicine*, 43(9), 2157-2163.
- [4] **Frayne RJ**, Dean RB, Jenkyn TR. (2014). Improving ice hockey shot analysis using 3d optical motion capture; a pilot study determining the effects of a novel grip tape on slap shot performance. *Journal of Sports Engineering and Technology*, 229(2), 136-144.
- [3] Dickey JP, Eger TR, **Frayne RJ**, Delgado GP, Ji X. (2013). Research using virtual reality: mining safety in the 21st century. *Minerals*, 3(2), 145-164.
- [2] **Frayne RJ**, Dickey JP, Schwartz M. (2012). Wear testing of a novel temporomandibular joint implant. *Applied Bionics and Biomechanics*, 9(3), 243-247.
- [1] Sacher N, **Frayne RJ**, Dickey JP. (2012). Investigating cervical muscle response and head kinematics during right, left, frontal and rear seated perturbation. *Traffic Injury Prevention*, 13(5), 529-536.