

Publications:

1. [Characterizing symptoms of traumatic brain injury in survivors of intimate partner violence.](#)
Smirl JD, Jones KE, Copeland P, Khatra O, Taylor EH, Van Donkelaar P.
Brain Inj. 2019;33(12):1529-1538. doi: 10.1080/02699052.2019.1658129. Epub 2019 Aug 23. <https://www.ncbi.nlm.nih.gov/pubmed/31442093>
2. [Letter to the Editor: On the need of considering cardiorespiratory fitness when examining the influence of sex on dynamic cerebral autoregulation.](#)
Labrecque L, **Smirl JD**, Brassard P.
Am J Physiol Heart Circ Physiol. 2019 May 1;316(5):H1229. doi: 10.1152/ajpheart.00152.2019. No abstract available.
<https://www.ncbi.nlm.nih.gov/pubmed/31070459>
3. [Attention Is Required to Coordinate Reaching and Postural Stability during Upper Limb Movements Generated While Standing.](#)
Dierijck J, Kennefick M, **Smirl J**, Dalton BH, van Donkelaar P.
J Mot Behav. 2019 Mar 27;1-10. doi: 10.1080/00222895.2019.1587351. [Epub ahead of print] <https://www.ncbi.nlm.nih.gov/pubmed/30915916>
4. [Dynamic cerebral autoregulation is attenuated in young fit women.](#)
Labrecque L, Rahimaly K, Imhoff S, Paquette M, Le Blanc O, Malenfant S, Drapeau A, **Smirl JD**, Bailey DM, Brassard P.
Physiol Rep. 2019 Jan;7(2):e13984. doi: 10.14814/phy2.13984.
<https://www.ncbi.nlm.nih.gov/pubmed/30652420>
5. [Cross-sectional comparison of spiral versus block integrated curriculums in preparing medical students to diagnose and manage concussions.](#)
Fraser S, Wright AD, van Donkelaar P, **Smirl JD**.
BMC Med Educ. 2019 Jan 9;19(1):17. doi: 10.1186/s12909-018-1439-0.
<https://www.ncbi.nlm.nih.gov/pubmed/30626361>
6. [Cerebral Autoregulation Is Disrupted Following a Season of Contact Sports Participation.](#)
Wright AD, **Smirl JD**, Bryk K, Fraser S, Jakovac M, van Donkelaar P.
Front Neurol. 2018 Oct 22;9:868. doi: 10.3389/fneur.2018.00868. eCollection 2018.
<https://www.ncbi.nlm.nih.gov/pubmed/30405514>
7. [Exaggerated systemic oxidative-inflammatory-nitrosative stress in chronic mountain sickness is associated with cognitive decline and depression.](#)
Bailey DM, Brugniaux JV, Filipponi T, Marley CJ, Stacey B, Soria R, Rimoldi SF, Cerny D, Rexhaj E, Pratali L, Salmòn CS, Murillo Jáuregui C, Villena M, **Smirl JD**, Ogoh S, Pietri S, Scherrer U, Sartori C.
J Physiol. 2019 Jan;597(2):611-629. doi: 10.1113/JP276898. Epub 2018 Nov 24.
<https://www.ncbi.nlm.nih.gov/pubmed/30397919>
8. [Cerebrovascular function in patients with chronic obstructive pulmonary disease: the impact of exercise training.](#)
Lewis N, Gelinas JCM, Ainslie PN, **Smirl JD**, Agar G, Melzer B, Rolf JD, Eves ND.
Am J Physiol Heart Circ Physiol. 2019 Feb 1;316(2):H380-H391. doi: 10.1152/ajpheart.00348.2018. Epub 2018 Oct 26.
<https://www.ncbi.nlm.nih.gov/pubmed/30362819>
9. [Heading in soccer increases serum neurofilament light protein and SCAT3 symptom metrics.](#)
Wallace C, **Smirl JD**, Zetterberg H, Blennow K, Bryk K, Burma J, Dierijck J, Wright AD, van Donkelaar P.

BMJ Open Sport Exerc Med. 2018 Aug 27;4(1):e000433. doi: 10.1136/bmjsem-2018-000433. eCollection 2018. <https://www.ncbi.nlm.nih.gov/pubmed/30233810>

10. [Anticipatory postural adjustments as a function of response complexity in simple reaction time tasks.](#)
Kennefick M, Wright AD, **Smirl JD**, van Donkelaar P.
Neurosci Lett. 2018 Sep 25;684:1-5. doi: 10.1016/j.neulet.2018.06.058. Epub 2018 Jun 30.
<https://www.ncbi.nlm.nih.gov/pubmed/29969650>
11. [A History of Concussion Does Not Lead to an Increase in Ocular Near Point of Convergence.](#)
van Donkelaar P, Dierijck J, Wright A, **Smirl J**.
Int J Sports Med. 2018 Sep;39(9):682-687. doi: 10.1055/s-0044-101454. Epub 2018 Jun 21.
<https://www.ncbi.nlm.nih.gov/pubmed/29929203>
12. [Sport-Related Concussion Alters Indices of Dynamic Cerebral Autoregulation.](#)
Wright AD, **Smirl JD**, Bryk K, Fraser S, Jakovac M, van Donkelaar P.
Front Neurol. 2018 Mar 27;9:196. doi: 10.3389/fneur.2018.00196. eCollection 2018.
<https://www.ncbi.nlm.nih.gov/pubmed/29636724>
13. [Sub-concussive trauma, acute concussion, and history of multiple concussions: Effects on quiet stance postural control stability.](#)
Dierijck JK, Wright AD, **Smirl JD**, Bryk K, van Donkelaar P.
Int J Psychophysiol. 2018 Oct;132(Pt A):74-80. doi: 10.1016/j.ijpsycho.2018.03.005. Epub 2018 Mar 8. <https://www.ncbi.nlm.nih.gov/pubmed/29526776>
14. [Systolic and Diastolic Regulation of the Cerebral Pressure-Flow Relationship Differentially Affected by Acute Sport-Related Concussion.](#)
Wright AD, **Smirl JD**, Bryk K, van Donkelaar P.
Acta Neurochir Suppl. 2018;126:303-308. doi: 10.1007/978-3-319-65798-1_59.
<https://www.ncbi.nlm.nih.gov/pubmed/29492579>
15. [Differential Systolic and Diastolic Regulation of the Cerebral Pressure-Flow Relationship During Squat-Stand Manoeuvres.](#)
Smirl JD, Wright AD, Ainslie PN, Tzeng YC, van Donkelaar P.
Acta Neurochir Suppl. 2018;126:263-268. doi: 10.1007/978-3-319-65798-1_52.
<https://www.ncbi.nlm.nih.gov/pubmed/29492572>
16. [A Prospective Transcranial Doppler Ultrasound-Based Evaluation of the Effects of Repetitive Subconcussive Head Trauma on Neurovascular Coupling Dynamics.](#)
Wright AD, **Smirl JD**, Bryk K, Jakovac M, van Donkelaar P.
Clin J Sport Med. 2018 Feb 14. doi: 10.1097/JSM.0000000000000578. [Epub ahead of print]
<https://www.ncbi.nlm.nih.gov/pubmed/29461267>
17. [Diminished dynamic cerebral autoregulatory capacity with forced oscillations in mean arterial pressure with elevated cardiorespiratory fitness.](#)
Labrecque L, Rahimaly K, Imhoff S, Paquette M, Le Blanc O, Malenfant S, Lucas SJE, Bailey DM, **Smirl JD**, Brassard P.
Physiol Rep. 2017 Nov;5(21). pii: e13486. doi: 10.14814/phy2.13486.
<https://www.ncbi.nlm.nih.gov/pubmed/29122957>
18. [A Prospective Transcranial Doppler Ultrasound-Based Evaluation of the Acute and Cumulative Effects of Sport-Related Concussion on Neurovascular Coupling Response Dynamics.](#)
Wright AD, **Smirl JD**, Bryk K, van Donkelaar P.

J Neurotrauma. 2017 Nov 15;34(22):3097-3106. doi: 10.1089/neu.2017.5020. Epub 2017 Aug 4. <https://www.ncbi.nlm.nih.gov/pubmed/28627298>

19. [Dynamic cerebral autoregulation in young athletes following concussion.](#)
Kostoglou K, Wright AD, **Smirl JD**, Bryk K, van Donkelaar P, Mitsis GD.
Conf Proc IEEE Eng Med Biol Soc. 2016 Aug;2016:696-699. doi:
10.1109/EMBC.2016.7590797. <https://www.ncbi.nlm.nih.gov/pubmed/28268423>
20. [Evidence for hysteresis in the cerebral pressure-flow relationship in healthy men.](#)
Brassard P, Ferland-Dutil H, **Smirl JD**, Paquette M, Le Blanc O, Malenfant S, Ainslie PN.
Am J Physiol Heart Circ Physiol. 2017 Apr 1;312(4):H701-H704. doi:
10.1152/ajpheart.00790.2016. Epub 2017 Jan 27.
<https://www.ncbi.nlm.nih.gov/pubmed/28130339>
21. [Where's Waldo? The utility of a complicated visual search paradigm for transcranial Doppler-based assessments of neurovascular coupling.](#)
Smirl JD, Wright AD, Bryk K, van Donkelaar P.
J Neurosci Methods. 2016 Sep 1;270:92-101. doi: 10.1016/j.jneumeth.2016.06.007. Epub
2016 Jun 9. <https://www.ncbi.nlm.nih.gov/pubmed/27291357>
22. [Relationship between blood pressure and cerebral blood flow during supine cycling: influence of aging.](#)
Smirl JD, Hoffman K, Tzeng YC, Hansen A, Ainslie PN.
J Appl Physiol (1985). 2016 Mar 1;120(5):552-63. doi: 10.1152/jappphysiol.00667.2015.
Epub 2015 Nov 19. <https://www.ncbi.nlm.nih.gov/pubmed/26586907>
23. [Methodological comparison of active- and passive-driven oscillations in blood pressure: implications for the assessment of cerebral pressure-flow relationships.](#)
Smirl JD, Hoffman K, Tzeng YC, Hansen A, Ainslie PN.
J Appl Physiol (1985). 2015 Sep 1;119(5):487-501. doi: 10.1152/jappphysiol.00264.2015.
Epub 2015 Jul 16. <https://www.ncbi.nlm.nih.gov/pubmed/26183476>
24. [Relationship between cerebral blood flow and blood pressure in long-term heart transplant recipients.](#)
Smirl JD, Haykowsky MJ, Nelson MD, Tzeng YC, Marsden KR, Jones H, Ainslie PN.
Hypertension. 2014 Dec;64(6):1314-20. doi: 10.1161/HYPERTENSIONAHA.114.04236.
Epub 2014 Oct 6. <https://www.ncbi.nlm.nih.gov/pubmed/25287403>
25. [Static autoregulation in humans: a review and reanalysis.](#)
Numan T, Bain AR, Hoiland RL, **Smirl JD**, Lewis NC, Ainslie PN.
Med Eng Phys. 2014 Nov;36(11):1487-95. doi: 10.1016/j.medengphy.2014.08.001. Epub
2014 Sep 7. <https://www.ncbi.nlm.nih.gov/pubmed/25205587>
26. [Influence of cerebrovascular resistance on the dynamic relationship between blood pressure and cerebral blood flow in humans.](#)
Smirl JD, Tzeng YC, Monteleone BJ, Ainslie PN.
J Appl Physiol (1985). 2014 Jun 15;116(12):1614-22. doi: 10.1152/jappphysiol.01266.2013.
Epub 2014 Apr 17. <https://www.ncbi.nlm.nih.gov/pubmed/24744385>
27. [Cerebral pressure-flow relationship in lowlanders and natives at high altitude.](#)
Smirl JD, Lucas SJ, Lewis NC, duManoir GR, Smith KJ, Bakker A, Basnyat AS, Ainslie PN.
J Cereb Blood Flow Metab. 2014 Feb;34(2):248-57. doi: 10.1038/jcbfm.2013.178. Epub
2013 Oct 30. Erratum in: J Cereb Blood Flow Metab. 2014 Feb;34(2):367. Dumanior,
Gregory R [corrected to duManoir, Gregory R].
<https://www.ncbi.nlm.nih.gov/pubmed/24169852>

28. [Regional cerebral blood flow distribution during exercise: influence of oxygen.](#)
Smith KJ, Wong LE, Eves ND, Koelwyn GJ, **Smirl JD**, Willie CK, Ainslie PN.
Respir Physiol Neurobiol. 2012 Oct 15;184(1):97-105. doi: 10.1016/j.resp.2012.07.014. Epub 2012 Aug 16. <https://www.ncbi.nlm.nih.gov/pubmed/22926137>
29. [Impaired cerebral haemodynamic function associated with chronic traumatic brain injury in professional boxers.](#)
Bailey DM, Jones DW, Sinnott A, Brugniaux JV, New KJ, Hodson D, Marley CJ, **Smirl JD**, Ogoh S, Ainslie PN.
Clin Sci (Lond). 2013 Feb;124(3):177-89. doi: 10.1042/CS20120259.
<https://www.ncbi.nlm.nih.gov/pubmed/22913765>
30. [Influence of posture on the regulation of cerebral perfusion.](#)
Geinas JC, Marsden KR, Tzeng YC, **Smirl JD**, Smith KJ, Willie CK, Lewis NC, Binsted G, Bailey DM, Bakker A, Day TA, Ainslie PN.
Aviat Space Environ Med. 2012 Aug;83(8):751-7.
<https://www.ncbi.nlm.nih.gov/pubmed/22872988>
31. [Assessment of cerebral autoregulation: the quandary of quantification.](#)
Tzeng YC, Ainslie PN, Cooke WH, Peebles KC, Willie CK, MacRae BA, **Smirl JD**, Horsman HM, Rickards CA.
Am J Physiol Heart Circ Physiol. 2012 Sep 15;303(6):H658-71. doi: 10.1152/ajpheart.00328.2012. Epub 2012 Jul 20.
<https://www.ncbi.nlm.nih.gov/pubmed/22821992>
32. [Resting and exercise cerebral blood flow in long-term heart transplant recipients.](#)
Smirl JD, Haykowsky MJ, Nelson MD, Altamirano-Diaz LA, Ainslie PN.
J Heart Lung Transplant. 2012 Aug;31(8):906-8. doi: 10.1016/j.healun.2012.04.003. Epub 2012 May 30. No abstract available. <https://www.ncbi.nlm.nih.gov/pubmed/22658714>
33. [Preceding movement effects on sequential aiming.](#)
Cheng DT, De Grosbois J, **Smirl J**, Heath M, Binsted G.
Exp Brain Res. 2011 Nov;215(1):1-11. doi: 10.1007/s00221-011-2862-1. Epub 2011 Sep 23.
<https://www.ncbi.nlm.nih.gov/pubmed/21947132>
34. [Aging blunts hyperventilation-induced hypocapnia and reduction in cerebral blood flow velocity during maximal exercise.](#)
Marsden KR, Haykowsky MJ, **Smirl JD**, Jones H, Nelson MD, Altamirano-Diaz LA, Gelinas JC, Tzeng YC, Smith KJ, Willie CK, Bailey DM, Ainslie PN.
Age (Dordr). 2012 Jun;34(3):725-35. doi: 10.1007/s11357-011-9258-9. Epub 2011 May 11.
<https://www.ncbi.nlm.nih.gov/pubmed/21559869>
35. [Utility of transcranial Doppler ultrasound for the integrative assessment of cerebrovascular function.](#)
Willie CK, Colino FL, Bailey DM, Tzeng YC, Binsted G, Jones LW, Haykowsky MJ, Bellapart J, Ogoh S, Smith KJ, **Smirl JD**, Day TA, Lucas SJ, Eller LK, Ainslie PN.
J Neurosci Methods. 2011 Mar 30;196(2):221-37. doi: 10.1016/j.jneumeth.2011.01.011. Epub 2011 Jan 27. Review. <https://www.ncbi.nlm.nih.gov/pubmed/21276818>