

Sports Medicine, Injury, and Rehabilitation

Aim

The aim of the Sports Medicine, Injury, and Rehabilitation theme is to conduct applied research encompassing a broad range of research disciplines, including biomechanics, physiology, sports therapy, sociology and psychology on topics related to the prevention, consequences, treatment and risk factors of injury from organ level to whole body.

Members

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[Dr Penny Hudson](#) – Senior Lecturer
[Dr Mike Lauder](#) – Senior Lecturer
[Neil Light](#) – Senior Lecturer
[Iain Littlejohn](#) – Principal Lecturer
[Carolina Mischiati](#) – Senior Lecturer
[Dr Stephen Myers](#) – Reader
[Dr Neal Smith](#) – Senior Lecturer
[Dr Andrea Scott](#) – Senior Lecturer

Publications

1. Thatcher J, Day MC, Oliver E. (2015) A 'new life' story or 'delaying the inevitable'? Exploring older people's narratives during exercise uptake. *Psychology of Sport and Exercise*, 16(3), 112-120.
2. Cook MD, Myers SD, Kelly JSM, Willems MET. Effect of Eccentric and Concentric Exercise on Breathing Efficiency. *Sports* 3, 12-20, 2015.
3. Gavin JP, Myers SD & Willems MET. The effect of glycogen reduction on cardiorespiratory and metabolic responses during downhill running. *European Journal of Applied Physiology* 115(5), 1125-1133, 2015.
4. Ozmen T, Aydogmus M, Dogan H, Acar D, Zoroglu T & Willems MET. The effect of kinesio taping® on muscle pain, sprint performance and flexibility in recovery from squat exercise in young adult women. *Journal of Sport Rehabilitation* (in press).
5. Gavin JP, Myers SD & Willems MET. Neuromuscular responses to mild-muscle damaging eccentric exercise in a low glycogen state. *Journal of Electromyography and Kinesiology* 25, 53-60, 2015.
6. Cook MD, Myers SD, Kelly JS, Willems MET. Acute post-exercise effects of concentric and eccentric exercise on glucose clearance. *International Journal of Sport Nutrition and Exercise Metabolism* (in press), 2014.
7. Gault ML, Willems, MET. Walking and aerobic capacity in old adults after concentric and eccentric endurance exercise at self-selected intensities. *Health* 6(8), 654-663, 2014.
8. Ozmen T, Yuktasir B, Yildirim NU, Yalcin B & Willems MET. Effect of Explosive Strength Training on Speed and Agility Performance in Wheelchair Basketball Athletes. *Brazilian Journal of Sports Medicine* 20(2), 97-100, 2014.

9. Blacker SD, Fallowfield JL, Bilzon JL, Willems MET (2013). Neuromuscular impairment following backpack load carriage. *Journal of Human Kinetics*, 5 (37), 91-8.
10. Day MC, Bond K, Smith B. (2013) Holding it together: Coping with vicarious trauma in sport. *Psychology of Sport and Exercise*, 14, 1-11.
11. Day MC. (2013). The role of initial physical activity experiences in promoting posttraumatic growth in Paralympic athletes with an acquired disability. *Disability and Rehabilitation*, 1-9.
12. Blacker SD, Fallowfield JL, Willems MET (2013). Intra- and interday reliability of voluntary and electrically stimulated isometric contractions of the quadriceps femoris. *Journal of Electromyography and Kinesiology* 23(4): 886-91
13. Gault ML & Willems MET. Aging, functional capacity and eccentric exercise training. *Aging and Disease*, 4(6), 351-363, 2013.
14. Gavin JP, Willems MET & Myers SD. Reproducibility of speed of lactate markers during 4 and 8 min stage incremental running: a pilot study. *Journal of Science and Medicine in Sport* S1440-2440(13)00192-8, 2013.
15. Gault ML & Willems MET. Isometric strength and steadiness adaptations of the knee extensor muscles to level and downhill treadmill walking in older adults. *Biogerontology* 14(2), 197-208, 2013.
16. Gavin JP, Myers SD & Willems MET. Physiological responses at various lactate markers for running at 4 and 8 minute treadmill increments. *Sport Scientific and Practical Aspects - International Scientific Journal of Kinesiology* 10(1), 5-14, 2013.
17. Gault ML, Clements RE & Willems MET. Cardiovascular responses during downhill treadmill walking at self-selected intensity in older adults. *Journal of Aging and Physical Activity* 21, 335-347, 2013.
18. Willems MET & Ponte J. Divergent fatigue resistance of dominant and non-dominant quadriceps muscle during voluntary isometric contractions. *Journal of Science and Medicine in Sport* 16(3), 240-244, 2013.
19. Day MC, Schubert N. (2012). The impact of witnessing athletic injury: A qualitative examination of vicarious trauma in artistic gymnastics. *Journal of Sports Sciences*, 30, 743-753.
20. Gault ML, Clements RE & Willems MET. Functional mobility of older adults after concentric and eccentric endurance exercise. *European Journal of Applied Physiology* 112(11), 3699-3707, 2012.
21. Fallowfield JL, Blacker SD, Willems ME, Davey T, Layden J. (2012) Neuromuscular and cardiovascular responses of Royal Marine recruits to load carriage in the field. *Applied Ergonomics*. 43(6): 1131-7.
22. Gault ML, Clements RE & Willems MET. Muscle damage from downhill treadmill walking does not change walking economy in healthy older adults. *Journal of Human Kinetics* 27, 55-65, 2011.
23. Wilkinson DM, Blacker SD, Richmond VL, Horner FE, Rayson MP, Spiess A, Knapik JJ. (2011). Injuries and injury risk factors among British Army infantry soldiers. *Injury Prevention*. 17(6): 381-7.
24. Blacker SD, Fallowfield JL, Bilzon JL, Willems MET (2010). Neuromuscular function following prolonged load carriage on level and downhill gradients. *Aviation Space Environmental Medicine*. 81(8): 745-753.
25. Blacker SD, Williams NC, Fallowfield JL, Bilzon JL, Willems MET. (2010). Carbohydrate vs protein supplementation for recovery of neuromuscular function following prolonged load carriage. *Journal of the International Society of Sports Nutrition*. 12(7:2).

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27. Webb EC & Willems MET. Effects of wearing graduated compression garment during eccentric exercise. *Medicina Sportiva* 14 (4): 193-198, 2010.

Technical Report

Wilkinson D.M., Blacker, S.D., Rayson, M.P., Graveling, R., Crawford J., Knapik J.J. (2014). Health and Safety Analysis, Performance Measurement and Action Planning. Royal National Lifeboat Institution. v1 01 December 2014