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Development of scientific exercise guidelines for adults with spinal cord injury [infographic]

PLEASE CITE THE PUBLISHED VERSION

<http://dx.doi.org/10.1136/bjsports-2018-099202>

PUBLISHER

BMJ Publishing Group (© Article authors)

VERSION

NA (Not Applicable or Unknown)

PUBLISHER STATEMENT

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LICENCE

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REPOSITORY RECORD

Goosey-Tolfrey, Vicky, Jan W. van der Scheer, Jan Lexell, Kristen Clements, and Kathleen A. Martin Ginis. 2019. "Development of Scientific Exercise Guidelines for Adults with Spinal Cord Injury [infographic]". figshare. <https://hdl.handle.net/2134/32765>.

Development of scientific exercise guidelines for adults with spinal cord injury

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The International SCI Exercise Guidelines Project Group

Development of scientific exercise guidelines for adults with spinal cord injury

Systematic review

Effects of exercise on fitness and health

13,155 citations scanned

211 relevant studies

Evidence synthesised and guideline recommendations drafted

International collaboration

Co-production, consensus panel meetings:

- **29** experts
- **7** countries
- **3** continents

Scientific guidelines

Fitness

For **cardiorespiratory fitness and muscle strength benefits**, adults with SCI should engage in at least:

20

minutes of moderate to vigorous intensity aerobic exercise

2 times a week

3

sets of strength-training exercises for each major functioning muscle group, at a moderate to vigorous intensity

2 times a week

Week	Mon	Tue	Wed
			X
Thu	Fri	Sat	Sun
	X		

Cardiometabolic health

For **cardiometabolic health benefits**, adults with SCI are suggested to engage in at least:

30

minutes of moderate to vigorous intensity aerobic exercise

3 times a week

Week	Mon	Tue	Wed
	X		
Thu	Fri	Sat	Sun
X		X	

Knowledge translation

Working with clinical and community stakeholders to:

- **Facilitate** international dissemination
- **Translate** to local practice guidelines

In 2016, an international team was established, to systematically review and build on previous bodies of work,^{1 2} to form evidence-based scientific guidelines.³ Presented in the infographic are the steps and outcomes from this work. This project brought together people from the sport, exercise and rehabilitation sciences along with community members and other stakeholders. It challenged current conventional thinking and built a rigorous and sustained commitment to community engagement to deliver a programme of research that was authentically coproduced together *with* people with a disability.⁴

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Contributors These guidelines were developed by an international group led by KAMG (University of British Columbia, Canada) and VLGT (Loughborough University, UK).

Funding This study was funded by the Loughborough University, the Peter Harrison Foundation, the Social Sciences and Humanities Research Council of Canada, and the Rick Hansen Institute.

Competing interests None declared.

Patient consent Not required.

Provenance and peer review Not commissioned; internally peer reviewed.

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To cite Goosey-Tolfrey VL, van der Scheer JW, Lexell J, et al. *Br J Sports Med* 2018;**52**:1166–1167.

Accepted 8 April 2018

Published Online First 25 April 2018

Br J Sports Med 2018;**52**:1166–1167.

doi:10.1136/bjsports-2018-099202

REFERENCES

- 1 Ginis KA, Hicks AL, Latimer AE, et al. The development of evidence-informed physical activity guidelines for adults with spinal cord injury. *Spinal Cord* 2011;49:1088–96.
- 2 van der Scheer JW, Martin Ginis KA, Ditor DS, et al. Effects of exercise on fitness and health of adults with spinal cord injury: A systematic review. *Neurology* 2017;89:736–45.
- 3 Martin Ginis KA, van der Scheer JW, Latimer-Cheung AE, et al. Evidence-based scientific exercise guidelines for adults with spinal cord injury: an update and a new guideline. *Spinal Cord* 2018;56:308–21.
- 4 Goosey-Tolfrey VL, van der Scheer JW, Clements K, et al. The BASES expert statement on the process and outcomes of developing exercise guidelines for adults with spinal cord injury. *The Sport and Exercise Scientist* 2018;56:6–7.