



## *Exercise, but not sport participation, decreases during the winter*

### ***Purpose***

To determine if the seasons influence physical activity among people with SCI.

### ***Summary***

- Three types of activity were looked at: leisure physical activity, exercise and sport.
- In the winter, people with SCI did less leisure physical activity and exercise.
- Levels of sport participation were sustained throughout the winter

### ***Possible Applications***

- For those who enjoy leisure physical activity and exercise, winter interventions should:
  - suggest ways to overcome winter weather barriers
  - encourage sport alternatives

### ***Research Abstract***

***Study design:*** Secondary cross-sectional analyses of a cohort.☒

***Objectives:*** To examine seasonal variation in total moderate-to-vigorous leisure-time physical activity (MV-LTPA), exercise and sport participation in a cohort of individuals with spinal cord injury (SCI).☒

***Setting:*** Community (Ontario, Canada).☒

***Methods:*** Participants with SCI (n=695) completed telephone interviews regarding their involvement in MV-LTPA along with social cognitive predictors of MV-LTPA. Logistic regression was used to predict the impact of season on participation in MV-LTPA, exercise and sport. Hierarchical linear regression was used to examine seasonal variation in min per day of MV-LTPA in the active sub-cohort (n=342) with a specific focus on exercise (for example, wheeling), and sport (for example, sledge hockey).☒

***Results:*** Logistic regressions revealed that season did not predict whether participants engaged in MV-LTPA, exercise or sport. Linear regressions revealed that individuals in the active sub-cohort who completed the questionnaire during the winter reported engaging in less MV-LTPA than those who were interviewed in summer ( $\beta_{\text{summer}}=0.14, P<0.05$ ). This pattern was observed for exercise ( $\beta$

summer=0.16,  $P < 0.05$ ;  $R^2$  change=0.018) but not for sport ( $\beta$  summer=0.076,  $P=0.68$ ;  $R^2$  change=0.014).<sup>2</sup>

**Conclusion:** Individuals with SCI report less exercise and total LTPA accrued during the winter months; sport was found to be an exception to this case.<sup>2</sup>

**Perrier, M.J., Latimer-Cheung, A.E., Martin Ginis, K.A., & The SHAPE-SCI Research Team. (2012). An investigation of seasonal variation in leisure time physical activity in persons with spinal cord injury. *Spinal Cord*, 50, 507-511. doi:10.1038/sc.2012.11.**