

PHYSICAL ACTIVITY GUIDELINES

for Adults with Spinal Cord Injury

KEY MESSAGES

The Physical Activity Guidelines for Adults with Spinal Cord Injury (SCI) released today state that:

For important fitness benefits, adults with a spinal cord injury should engage in at least 20 minutes of moderate to vigorous intensity aerobic activity 2 times per week, and strength training exercises 2 times per week, consisting of 3 sets of 8-10 repetitions of each exercise for each major muscle group.

Spinal Cord Injuries - by the numbers in Canada

- A recent review of SCI data in Canada estimates that there are currently close to 86,000 individuals living with SCI in Canada, 44,000 of which are as a result of traumatic causes.
- There are approximately 4,200 new cases of SCI in Canada each year. Of those, almost 1,800 are as a result of a traumatic injury from external causes such as car accidents, and the remaining number are as a consequence of diseases and other non-traumatic causes.
- Cases of SCI are projected to increase over the next two decades, with the number of new traumatic cases increasing from the 4,200 estimated for 2010 to 5,800 new cases estimated in 2030; and from the current estimated 86,000 persons living with SCI in 2010 to 121,000 persons in 2030.

(Source: The Rick Hansen Institute's recently released Incidence and Prevalence Report by the Urban Futures Institute)

The Physical Activity Guidelines for Adults with Spinal Cord Injury

General messages and context:

- Our message is simple: aerobic exercise AND strength training, twice a week!
- These are the first ever, evidence-based physical activity guidelines to be developed specifically for adults with SCI.
- The guidelines will assist clinicians and exercise programmers in prescribing and promoting exercise and will act as a practical guide for adults with SCI who want more information on the types and amounts of activity required for fitness benefits.
- The guidelines were developed by an expert panel from across Canada, led by researchers at McMaster University, in partnership with SCI Action Canada and the Rick Hansen Institute.
- The Physical Activity Guidelines for Adults with SCI are posted on the SCI Action Canada website: www.sciactioncanada.ca/guidelines.

Physical activity and people with SCI:

- Physical activity plays an important role in overall health and quality of life.
- Daily leisure time physical activity levels among people with SCI are generally low, especially among women, older adults, people with less recent injuries, and people with more severe injuries.
- The loss of fitness and independence associated with physical inactivity significantly impacts quality of life and community participation.

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- For people with SCI, physical deconditioning can be a common consequence of their injury and is associated with increased risk for chronic secondary health complications.
- Exercise may reduce the risk of secondary complications such as pain and pressure ulcers.
- The leading causes of death among people with SCI are chronic diseases that are often caused by physical inactivity, such as heart disease and type 2 diabetes.
- This is why it is so important that adults with SCI engage in aerobic and strength activities twice a week.

Guideline specific messages:

- All healthy adults with spinal cord injury – due to traumatic or non-traumatic causes – are encouraged to participate in a variety of physical activities that are enjoyable and safe.
- The Physical Activity Guidelines for Adults with SCI state that adults with spinal cord injury should participate in at least 20 minutes of moderate-to-vigorous intensity aerobic activity two times per week as well as strength training exercises two times per week.
- Some examples of aerobic activities include wheeling, arm cycling, body weight supported treadmill walking, recumbent steppers, or water exercise.
- Strength training is recommended to consist of 3 sets of 8-10 repetitions of each exercise for each major muscle group.
- Free weights, elastic resistance bands, or weight machines are all examples of strength training activities that can help to prevent muscle and bone atrophy.
- For people who aren't physically active yet, it is important to begin slowly and to gradually increase the length and intensity of physical activity over time.

Guideline development:

- The guidelines were developed following a rigorous and internationally accepted, consensus approach to guideline development – the same process the recently released Canadian Physical Activity Guidelines followed.
- The Physical Activity Guidelines for Adults with SCI were needed to address the specific needs of wheelchair-dependent people with SCI, whereas the Canadian Physical Activity Guidelines were developed from evidence on able-bodied individuals.
- First, a large-scale systematic review of research on physical activity and health among adults with SCI was undertaken. Then an expert panel of Canadian scientists, clinicians, service-providers and consumers evaluated and reviewed the research, and generated the guidelines.
- The guidelines were pilot-tested in groups of consumers and health care professionals. Feedback from these groups was used to refine the guidelines.

Next steps:

- In Fall 2011, a companion Physical Activity Guide for Adults with SCI will be released.