

Scientific/Educational Workshop

Workshop title

Assessing Fracture and Fall Risk among Individuals with Spinal Cord Injury Living in the Community

Workshop organizer

Kristin Musselman (Toronto Rehabilitation Institute)

Speakers

Kristin Musselman,
Cathy Craven

Workshop goals

- 1) To introduce risk factors for fractures and falls among patients with chronic SCI.
- 2) To review mechanisms of fracturing and falling among wheelchair users and walkers with chronic SCI.
- 3) To demonstrate clinical fall and fracture risk assessment tools (e.g. lean and release, inertial sensors, risk stratification tools).

Abstract

Intended Audience: Regulated health care professionals, kinesiologists, exercise therapists, administrators, mobility scientists

Background: Seventy five percent of individuals with spinal cord injury (SCI) report experiencing at least one fall each year, with 27% of these falls resulting in injury. Further, 1 in 10 people with chronic SCI report a fracture in the previous 6 months. Falls and fractures adversely impact the health, self-esteem, and community participation of individuals living with chronic SCI in the community. The total direct cost of fractures after SCI is CAD\$7,750. Furthermore, there is a 5-year increase in mortality following a lower extremity fracture. Fall prevention is an essential precursor for fracture risk reduction.

Aim: The aim of this workshop is to promote routine fall and fracture risk assessment in outpatient rehabilitation settings using novel tools to facilitate identification of those at highest risk for falls and/or fractures whom require further intervention. Learning Objectives:

- 1) To introduce risk factors for fractures and falls among patients with chronic SCI.
- 2) To review mechanisms of fracturing and falling among wheelchair users and walkers with chronic SCI.
- 3) To demonstrate clinical fall and fracture risk assessment tools (e.g. lean and release, inertial sensors, risk stratification tools).

The workshop will include a didactic component to review key constructs related to falls and fractures after SCI, followed by demonstration of assessment tools and case-based discussions. Workshop participants should come in casual clothes prepared to interact with one another. Toronto Rehab is an international leader in bone health and mobility assessment for individuals with SCI. Dr Musselman has expertise in the assessment and training of balance and gait for neurological populations across the lifespan. Dr Craven has expertise in assessment of bone quality, fracture risk and the efficacy of osteoporosis therapy.