

Appraisal

Appraisal of Clinical Practice Guideline: Australian and New Zealand clinical practice guideline for the physiotherapy management of people with spinal cord injuries

Date of latest update: 2022. **Date of next update:** Planned within five years. **Patient group:** Adults (> 16 years) with a traumatic or non-traumatic spinal cord injury. **Intended audience:** Physiotherapists, people living with spinal cord injury and their caregivers. **Additional versions:** None. **Expert working group:** The Guideline Management Committee included 11 members (chairperson, guideline funding agency representatives, a consumer, and content experts in clinical guidelines, spinal cord injury physiotherapy, research and evidence). The Guideline Development Committee for rehabilitation-specific recommendations included 33 members (chairperson, content experts including physiotherapists, academics, exercise physiologists, and consumers with knowledge of evidence-based care provision). All members were from Australia or New Zealand. **Funded by:** icare New South Wales, National Injury Insurance Scheme Queensland, Transport Accident Commission Victoria, and Lifetime Support Authority South Australia. **Consultation with:** Public and key stakeholders identified by the guideline management and development committees. **Approved by:** Not specifically documented. **Location:** Spinal Cord Injury Physiotherapy Guidelines website (www.sciptguide.com) or <https://doi.org/10.1038/s41393-025-01088-8>.

Description: The Australian and New Zealand clinical practice guideline for the physiotherapy management of people with spinal cord injuries was developed in response to limited evidence-based guidance. The guideline covers 13 clinical areas with over 100 clinical questions relevant to the physiotherapy management of spinal cord injury. Questions were developed a priori using a PICO (Participant, Intervention, Comparison and Outcome) approach. Systematic reviews of randomised controlled trials and meta-analyses were then performed for each research question. The Grading of Recommendations Assessment, Development and Evaluation (GRADE) approach was used to develop recommendations, and guidance from the Australian National Health and Medical Research Council (NHMRC) was used to develop consensus-based opinion statements with accompanying clinical notes. A total of 14 recommendations and 85 consensus-based opinion statements were informed by 76 randomised controlled trials and 20 meta-analyses. Based on this evidence, the guidelines indicate weak evidence in favour of manual wheelchair training for wheelchair skills; virtual reality sitting training for sitting balance; long-duration stretch for joint mobility; transcutaneous electrical nerve stimulation for pain; strength training in non-paralysed and partially paralysed muscles; functional electrical stimulation cycling to reduce atrophy in paralysed muscles; and arm cranking, hand cycling and circuit training to improve fitness. There was weak evidence against the use of

electrical stimulation alone for strength in partially paralysed muscles and functional electrical stimulation cycling for swelling. This guidance should be considered alongside recommendations for physiotherapy interventions for respiratory management of spinal cord injuries, published elsewhere (<https://doi.org/10.1038/s41393-025-01116-7>).

Commentary: This guideline is highly relevant for physiotherapists and people with spinal cord injuries—providing clear, accessible guidance for clinical practice. It provides evidence-based recommendations and consensus-based opinion statements across multiple intervention areas, with comprehensive summaries and accompanying clinical notes indicating what should or should not be clinically implemented. Methodologically rigorous approaches were used in the development of this guideline, including a priori development of PICO questions through expert consensus, systematic literature searches, and application of the GRADE methodology and the NHMRC framework. Evidence-based recommendations were then formulated when high-quality randomised controlled trials were available, while expert consensus-based opinion statements addressed areas lacking robust evidence. The guideline development committee included clinical and methodological expertise, along with consumer input, ensuring that recommendations are clinically relevant and scientifically sound. For each recommendation, detailed documentation of desirable/undesirable effects, the certainty of the evidence, acceptability, feasibility and cost-effectiveness aids transparency. The guideline additionally identifies evidence gaps, providing researchers with clear direction for future investigations. There are also limitations to consider. While based on international literature, only English language publications were included, and Australian and New Zealand healthcare contexts informed decision-making. Expanding the panel to include international experts and incorporating non-English literature could enhance global applicability. The guideline was developed from 2020 to 2022, published online in 2023 and in a journal in 2025. Regular updates are essential to maintain currency. Overall, the methodological quality and extensive stakeholder involvement make this guideline a very valuable resource for physiotherapists working with patients with spinal cord injury.

Provenance: Invited. Not peer reviewed.

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