



TITLE: Standing Tables for Adults with Cerebral Palsy: A Review of the Clinical Evidence

DATE: 22 April 2013

CONTEXT AND POLICY ISSUES

Cerebral palsy (CP) is neurological condition that interferes with the signals between the brain and the body and affects an individual's movement and muscle coordination.¹ The condition results from damage to the brain in utero or during early childhood development and that injury does not worsen over time. The effects of CP can vary greatly between individuals depending on which part of the brain has been damaged.¹ Some individuals may not display any obvious symptoms while others may be unable to speak or move around without assistance due to limb paralysis.¹ In 2011, it was estimated that there are more than 60,000 Canadians living with CP.¹

Standing can be an important part of physical therapy for patients who experience limb paralysis.² Standing, or tilt, tables are used to help these patients stand upright.³ Patients are strapped to a padded table and are gradually moved into an upright position to simulate standing. Standing on a regular basis can help to improve prevent a number of conditions including muscle contracture and spasticity,^{3,4} circulation and blood pressure,⁴ bone density,⁴ osteoporosis,³ pressure relief for the prevention of pressure sores,^{3,4} bladder and bowel function,^{3,4} and decrease the risk of chest infections and pneumonia.³

The purpose of this review is to examine the clinical evidence for the use of the standing table for adults with cerebral palsy and to determine if there are any clinical benefits to this population resulting from use of the device.

RESEARCH QUESTION

What is the clinical evidence regarding the use of standing or tilt tables for adults with cerebral palsy?

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KEY FINDINGS

No relevant literature was identified regarding the use of standing or tilt tables for adults with cerebral palsy.

METHODS

Literature Search Strategy

A limited literature search was conducted on key resources including PubMed, CINAHL, The Cochrane Library (2013, Issue 2), University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and major international health technology agencies, as well as a focused Internet search. No filters were applied to limit the retrieval by study type. The search was also limited to English language documents published between Jan 1, 2003 and Mar 21, 2013.

Selection Criteria and Methods

One reviewer screened the titles and abstracts of the retrieved publications and examined the full-text publications for the final article selection. Selection criteria are outlined in Table 1.

Table 1: Selection Criteria

Population	Adults with cerebral palsy
Intervention	Standing or tilt tables
Comparator	None specified
Outcomes	Range of motion, joint mobility, weight control, muscle strength, bone integrity, cardiovascular endurance, pressure sores, kidney function, bladder function, bowel function, respiratory infection, clinical benefit
Study Designs	Health technology assessments, systematic reviews, meta-analyses, and randomized controlled trials

Exclusion Criteria

Articles were excluded if they did not meet the selection criteria in Table 1 or they were published prior to January 2003.

SUMMARY OF EVIDENCE

Quantity of Research Available

The literature search yielded 161 citations. No additional studies were identified by searching the grey literature. After screening of abstracts, no potentially relevant studies were selected for full-text review.

The PRISMA flowchart in Appendix 1 details the process of the study selection.

CONCLUSIONS AND IMPLICATIONS FOR DECISION OR POLICY MAKING

No relevant literature was identified; therefore, no conclusions or implications for decision or policy making can be presented regarding the use of standing tables for adults with cerebral palsy.

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APPENDIX 1: Selection of Included Studies

