

## Mattresses for Chronic Back or Neck Pain: A Review

### Context

Chronic back and neck pain are common conditions that result in significant costs related to care, absenteeism, and early retirement. The pain can be moderate to severe and debilitating. While back and neck pain often resolve with little or no intervention, in some cases the pain recurs frequently.

### Technology

Physical therapy, exercise, and analgesia are frequently recommended for reducing non-specific back and neck pain, and associated disability. However, it has been suggested that the use of specific types of mattresses may be another treatment option, as some mattresses may contribute to back and neck discomfort or pain depending on their firmness and construction.

### Issue

A review of the effectiveness of different mattress types for treating adults with chronic back or neck pain, and of evidence-based guidelines on mattress attributes to reduce chronic back or neck pain, will help to inform treatment decisions for these patients.

### Methods

A limited literature search was conducted of key resources, and titles and abstracts of the retrieved

publications were reviewed. Full-text publications were evaluated for final article selection according to predetermined selection criteria (population, intervention, comparator, outcomes, and study designs).

### Key Messages

- A firm mattress is the least effective intervention, when compared with a waterbed mattress and a foam mattress, for treating adults with lower back pain (based on limited evidence).
- No evidence was identified that examined mattress interventions specifically for chronic neck pain.
- There is a lack of evidence on which to base mattress recommendations for the treatment of chronic back and neck pain.

### Results

The literature search identified 377 citations, with 4 additional articles identified from the grey literature. Of these, 17 articles were deemed potentially relevant, with 5 meeting the criteria for inclusion in this review — 4 guidelines and 1 randomized controlled trial.

*DISCLAIMER: The information in this Report in Brief is intended to help health care decision-makers, patients, health care professionals, health systems leaders, and policy-makers make well-informed decisions and thereby improve the quality of health care services. The information in this Report in Brief should not be used as a substitute for the application of clinical judgment in respect of the care of a particular patient or other professional judgment in any decision-making process nor is it intended to replace professional medical advice. While CADTH has taken care in the preparation of the Report in Brief to ensure that its contents are accurate, complete, and up-to-date, CADTH does not make any guarantee to that effect. CADTH is not responsible for any errors or omissions or injury, loss, or damage arising from or as a result of the use (or misuse) of any information contained in or implied by the information in this Report in Brief.*

*CADTH takes sole responsibility for the final form and content of this Report in Brief. The statements, conclusions, and views expressed herein do not necessarily represent the view of Health Canada or any provincial or territorial government. Production of this Report in Brief is made possible through a financial contribution from Health Canada.*