


Effectiveness of Musculoskeletal Manipulations in Patients with Neck Pain



Implication for
clinical practice:
Systematic Review
and Network Meta-
Analysis

Using two or more manual therapy techniques improves neck pain and should be combined with exercise and education.

Context

- This study aimed to rank manual therapy interventions for adults with neck pain.
- It was based on their ability to reduce pain intensity, improve disability and increase cervical range of motion (ROM).

Methods

Search Strategy: 101 RCTs were selected from eight major databases (including PubMed, Cochrane and Embase) published from January 2013 to May 2025.

Participants: 7633 Adults with neck pain were included.

Interventions: Seven categories of intervention were analysed:

- Manipulation
- Manual therapy
- Soft tissue techniques
- Mobilisation
- Multimodal treatment (combining two or more manipulations)
- Active control (education/exercise)
- No treatment

Note: definitions of each intervention are provided within the study itself.

Outcomes:

- Primary: Neck pain intensity (VAS or NPRS).
- Secondary: Neck Disability Index (NDI), Cervical ROM and any adverse events.

Results

- Multimodal treatment (combining techniques) was the most effective intervention for reducing neck pain intensity and disability scores.
- Exercise and education, manual therapy and soft tissue techniques showed significant pain reduction compared to no treatment.
- Manipulation was the most effective intervention for improving Cervical ROM in the short term.
- No serious adverse events were reported across the included studies.

Reference

[Gong Z, et al. \(2025\) Effectiveness of musculoskeletal manipulations in patients with neck pain: a systematic review and network meta-analysis. British Medical Journal Open; 15: e098682. doi: 10.1136/bmjopen-2024-098682](#)