

Stabilisation-based Rehabilitation Strategies for Upper Cross Syndrome: A Systematic Review

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ABSTRACT

Introduction: Upper Cross Syndrome (UCS) is a common postural disorder caused by muscle imbalance, leading to forward head posture, rounded shoulders, pain, reduced range of motion, and functional limitations. Stabilisation-based physiotherapy interventions such as scapular and cervical stabilisation, corrective exercises, neuromuscular control training, and breathing exercises are commonly used for its management.

Aim: This systematic review evaluated the effectiveness of stabilisation-based rehabilitation strategies on pain, posture, range of motion, muscle activation, and functional outcomes in individuals with UCS.

Materials and Methods: A systematic search of PubMed, Google Scholar, Scopus, PEDro, ResearchGate, and Wiley Online Library was conducted for studies published between 2015 and 2025. Keywords included Upper Cross Syndrome, scapular stabilisation, cervical stabilisation, corrective exercises, breathing exercises, and rehabilitation. Randomised controlled trials and controlled clinical studies incorporating stabilisation-based interventions were included. Review articles, case

reports, conference abstracts, and studies without stabilisation components were excluded.

Results: Out of 7,895 identified studies, 14 met the inclusion criteria. The findings demonstrated that stabilisation-based interventions were more effective than generalised or passive exercise programmes. Scapular stabilisation, deep cervical flexor training, neuromuscular corrective exercises, and programmes integrating breathing or respiratory training showed significant improvements in pain reduction, postural alignment, muscle balance, cervical and shoulder range of motion, proprioception, and functional performance. Combined and comprehensive stabilisation programmes consistently produced superior outcomes compared to isolated interventions.

Conclusion: Stabilisation-based rehabilitation strategies are effective in the management of UCS. Evidence supports the inclusion of scapular and cervical stabilisation, neuromuscular control training, and corrective exercise programmes to address postural dysfunction and functional impairment.

Keywords: Cervical stabilisation, Performances, Scapular stabilisation, Stabilisation exercises.

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