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SYSTEMATIC REVIEW

THE IMPACT OF LUMBOPELVIC CONTROL ON OVERHEAD PERFORMANCE AND SHOULDER INJURY IN OVERHEAD ATHLETES: A SYSTEMATIC REVIEW

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ABSTRACT

Background: The lumbopelvic region is utilized in almost all functional tasks and has been proposed to provide dynamic stability to distal extremities.

Purpose: To systematically evaluate the current literature that examined the effect of lumbopelvic control on overhead performance and shoulder injury in overhead athletes.

Study Design: Systematic Review

Methods: A comprehensive systematic electronic search was conducted using PubMed, CINAHL, ProQuest, Scopus, and SPORTDiscus. Articles were considered for inclusion if they included a measure of lumbopelvic control and assessed shoulder pain, disability, injury, or overhead performance outcome. Cohen's *d* effect size was calculated when necessary statistical data were available to determine the impact of lumbopelvic control.

Results: The search revealed 3,312 total articles and 2,883 articles were screened after duplicates were removed. After titles and abstracts were screened, 45 full text articles were reviewed. Fifteen full-text articles ultimately met inclusion criteria. Effect sizes ranged from trivial (0.10) to large (0.86), indicating a varying degree of positive effects on performance and shoulder injuries. The majority of included articles concluded individuals with greater lumbopelvic control demonstrated improved performance and decreased occurrence of injury.

Conclusion: Results suggest that improved lumbopelvic control relates to improved athletic performance and decreased shoulder injury. Additional higher quality research is needed to further support these findings, establish a standard measure for lumbopelvic control, and determine preventative factors for injury, pain, and disability.

Level of Evidence: 2a

Keywords: Core stability, injury, lumbopelvic control, movement system, overhead athletes

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