

# Impacts of Occupational Head Loading on Cervical Degeneration: A Systematic Review

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## ABSTRACT

**Introduction:** Occupational head loading is prevalent among porters and agricultural workers in many developing regions, posing risks to cervical spine health. This systematic review investigates the effects of habitual head loading on cervical spine degeneration and identifies the magnitude of associated health risks.

**Materials and Methods:** PubMed, Scopus, and Google Scholar were systematically searched for studies published between 1968 and 2023. Inclusion criteria encompassed studies analysing cervical degeneration in head-loading workers compared to controls. The risk of bias was assessed using the Cochrane tool, and results were synthesised qualitatively and quantitatively.

**Results:** A total of 16 studies involving 1,080 participants were included. Cervical degeneration prevalence was significantly higher in head-loading workers (76.89%) compared to non-load carriers (9.90%) p-value. Key findings included reduced cervical lordosis, disc height reduction, and early onset of osteophytes.

**Conclusions:** Habitual head loading is strongly associated with accelerated cervical spine degeneration. Preventive measures, ergonomic interventions, and alternative load-carrying techniques are essential to mitigate health risks. Future longitudinal studies are warranted to explore the progression of these changes.

**Keywords:** Cervical spine degeneration, Cervical spondylosis, Ergonomics, Occupational health

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