

Cervical radiculopathy rehabilitation treatment

see also [Cervical traction for cervical disc herniation](#).

Physical therapy might include gentle [cervical traction](#) and [mobilization](#), exercises, and other modalities to reduce pain. If significant compression on the nerve exists to the extent that motor weakness results, surgery may be necessary to relieve the pressure.

Information about postoperative [rehabilitation](#) for [cervical radiculopathy](#) (CR) is scarce.

Medline and [CINAHL](#) via EBSCO, Cochrane Library, and Google Scholar were used to retrieve randomized clinical trial studies for a review between the years of 1995 and February of 2011. Four studies met inclusion criteria and were considered to be high quality (PEDro scores of ≥ 5). Manual therapy techniques included muscle energy techniques, non-thrust/thrust manipulation/mobilization of the cervical and/or thoracic spine, soft-tissue mobilization, and neural mobilization. In each study, manual therapy was either a stand-alone intervention or part of a multimodal approach which included therapeutic exercise and often some form of cervical traction. Although no clear cause and effect relationship can be established between improvement in radicular symptoms and manual therapy, results are generally promising.

Although a definitive treatment progression for treating CR has not been developed a general consensus exists within the literature that using manual therapy techniques in conjunction with therapeutic exercise is effective in regard to increasing function, as well as AROM, while decreasing levels of pain and disability. High quality RCTs featuring control groups are necessary to establish clear and effective protocols in the treatment of CR ¹⁾.

The aim of a study was to investigate the additional benefits of structured postoperative rehabilitation (SPT), which was performed in all patients, compared with a pragmatic standard postoperative approach (SA), in which rehabilitation was used as needed and patients sought physiotherapy on their own without a referral, in patients with MRI evidence of disc herniation and concomitant clinical signs who underwent surgery for CR.

Patients (n = 202) were randomized to receive SPT or SA. Included key variables in the present study were primary and selected secondary outcomes of a prospective randomized controlled multicenter study. The main outcome was the Neck Disability Index (NDI) score. The NDI score, pain variables, self-efficacy, and health-related quality of life were investigated at baseline and 3, 6, 12, and 24 months postoperatively.

SPT provided no additional benefits over SA (p = 0.08 to p = 0.99) at the postoperative 2-year follow-up. Both groups improved over time (p < 0.0001), with no reported adverse effects.

One can conclude that SPT offered no additional benefits over SA; however, patients tolerated

postoperative neck exercises without any negative side effects. These findings are important for the development of future active and neck-specific postoperative rehabilitation interventions for patients with CR. Clinical trial registration no.: NCT01547611 (clinicaltrials.gov) ²⁾.

References

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Boyles R, Toy P, Mellon J Jr, Hayes M, Hammer B. Effectiveness of manual physical therapy in the treatment of cervical radiculopathy: a systematic review. J Man Manip Ther. 2011 Aug;19(3):135-42. doi: 10.1179/2042618611Y.0000000011. PubMed PMID: 22851876; PubMed Central PMCID: PMC3143012.

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