

Changes in Isometric Strength and Range of Motion of the Isolated Cervical Spine After Eight Weeks of Clinical Rehabilitation

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Abstract

There have been no reports in the literature objectively measuring changes in strength and range of motion in patients with non-spinal-cord injuries of the cervical spine. Ninety patients participated in an 8-week training study. Diagnostic groups included patients with the following: degenerative disc ($n = 6$), herniated disc ($n = 14$), and cervical strain ($n = 70$). Full-range isometric strength tests were performed at eight equidistant positions in a device that constrained all motion with the exception of cervical flexion and extension. Post tests were performed following training. Significant gains were seen in strength as well as range of motion. Perceived pain was significantly reduced. This kind of testing can potentially provide the clinician with objective findings to direct patient management more adequately. (Key words: cervical spine, spondylosis, isometric strength tests, training effects)