

Lumbar Range of Motion Not Related to Functional Ability

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According to the American Medical Association's *Guides to the Evaluation of Permanent Impairment*, 5th edition,¹ range of motion (ROM) is a major element that needs to be assessed to determine the percentage of impairment. While the *Guides* claim that ROM loss is valid only if there is medical evidence of a documented injury or illness with permanent anatomic or physiologic residual dysfunction, the question remains whether a ROM measurement is valid at all. According to Parks, et al., in a recent issue of *Spine*,² "The relation between lumbar range of motion measures and functional ability is weak or nonexistent." They compared lumbar ROM values with actual functional tests. In other words, regardless of if we measure a decreased ROM, it turns out that lumbar ROM is "an invalid criterion for disability determination for patients with chronic low back pain."² The authors assert, "normal, asymptomatic individuals have been classified inappropriately as having an impairment simply on the basis of ROM."²

A previous study used a questionnaire (Oswestry)³ to measure disability, compared it to a dual inclinometer to measure lumbar ROM, and found no significant relation of disability to flexion and extension. Another study by Sullivan, et al.,⁴ stated that flexion-active ROM and disability correlated weakly, and suggested that flexion-active ROM measures should not be used as treatment goals.

Waddell, et al.,⁵ used a combination testing of total flexion; total extension; average lateral flexion; average straight leg raising (SLR); spinal tenderness; bilateral active SLR; and a sit-up, which met the criteria for evaluating physical impairment. But they stated that all the tests included were measures of current functional limitation, rather than of permanent anatomic or structural impairment. They stated that this raises questions about the physical basis of permanent disability, due to chronic low back pain.

Parks, et al.,² end their article with the statement: "In their attempt to determine disability, clinicians should endeavor to emphasize the patient's ability to meet occupational demands, instead of relying solely on lumbar ROM measurements obtained during physical examination."

References

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