

Can Spinal Surgery Be Prevented by Aggressive Strengthening Exercise? A Prospective Study of Cervical and Lumbar Patients

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ABSTRACT

Objective: To determine of patients recommended for spinal surgery can avoid the surgery through an aggressive strengthening program.

Setting: A privately owned clinic, staffed by physicians and physical therapists, that provides treatment for patients with neck and/or back pain.

Methods: Over a period of 21/2 years, consecutive patients referred to the clinic for evaluation and treatment were enrolled in the study of they (1) had a physician's recommendation for lumbar or cervical surgery, (2) had no medical condition preventing exercise, and (3) were willing to participate in the approximately 10-week outpatient program. Treatment consisted mainly of intensive, progressive resistance exercise of the isolated lumbar or cervical spine. Exercise was continued to failure, and patients were encouraged to work through their pain. Third-party payers in Minneapolis were surveyed for average costs. Average follow-up occurred 16 months after discharge.

Results: Forty-six of the 60 participants completed the program; 38 were available for follow-up and three required surgery after completing the program.

Discussion/Conclusion: Despite methodologic limitations, the results are intriguing. A large number of patients who had been told they needed surgery were able to avoid surgery in the short term by aggressive strengthening exercise. This study suggests the need to define precisely what constitutes "adequate conservative care."