

Is Spinal Manipulation an Effective Treatment for Low Back Pain?

Yes: Spinal Manipulation Is a Useful Adjunct Therapy

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Low back pain is a common symptom in primary care patients that has many possible etiologies. Spinal manipulation is one of many potential treatment options that have been used by many different types of clinicians for more than a century. Only in the past 50 years have research studies evaluated the benefits of spinal manipulation. There are challenges in interpreting the data because of the heterogeneity of patient populations, acute versus chronic duration of symptoms, and the variety of treatment modalities implemented by clinicians with various backgrounds and training. Overall, however, the data show a significant benefit in pain scores (acute and over various periods of follow-up), functional status, and need for pain medication with spinal manipulation. Although individual exceptions have been observed, these improvements can be considered reasonable proof of effectiveness.

It is unrealistic to expect any single treatment modality to be universally effective across all patients. This principle was recently demonstrated in a clinical trial involving 1,573 adults with back pain, which provided conventional care or stratified care, including spinal manipulation, based on a clinical assessment of individual patient prognosis (i.e., low, medium, and high risk).¹ The results demonstrated that Roland Morris Disability Questionnaire scores (the primary outcome) were significantly lower, during the initial evaluation and at follow-up, in the group receiving stratified care, compared with those receiving conventional care. The group receiving stratified



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care also had significant cost savings and increased general health benefits (measured by quality-adjusted life-years at 12 months of follow-up).

When studied as a single modality in multiple systematic reviews and meta-analyses, spinal manipulation has been more effective than several control treatments.²⁻⁶ Many of the studies in these reviews involved a small number of patients, and most did not show a significant benefit of spinal manipulation over the control arm in every end point studied. Perhaps the most illustrative of these studies is a classic study that showed a significant, time-dependent improvement in back pain scores and mobility in patients treated with either osteopathic spinal manipulation or open-label control (which did not include manual therapy).⁷ Importantly, the reductions in the use of pain medication and physical therapy were significantly greater in patients treated with osteopathic spinal manipulation. Most of the meta-analyses showed a time-dependent decrease in the differences between treatments, and only a few studies had sufficient power to detect differences in other important end points (e.g., time off of work, quality of life, cost-effectiveness or cost-utility).⁸

Despite the results of meta-analyses, the effectiveness of spinal manipulation for low back pain has been recognized in many clinical practice guidelines because it facilitates individualized treatment for a condition that ►

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can cause considerable psychological distress.^{3,9,10} A useful resource to stratify patients based on prognostic criteria is available at <http://www.keele.ac.uk/sbst/>. Although spinal manipulation is rarely recommended as a solitary treatment modality, its judicious use in an appropriate patient is more likely to lead to successful outcomes, as judged by the patient, the physician, and society.

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