Gaston Rehab Associates, Inc.
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Evidence Based Medicine: Lumbar Spine

When is spinal manipulation appropriate?

Most of the available research showing the benefits of spinal manipulation has been performed by physiotherapists. Other healthcare providers have spun this to show that spinal manipulation is appropriate for all ages and to back their anecdotal reports and gain dependency from their patients.

Spinal Manipulation has been shown to be appropriate for individuals between the ages ***18-60 years old*** when ***4 out of 5*** of the following conditions have been met:

1) Duration of current episode of low back pain is: < 16 days
2) Extent of distal symptoms: No symptoms distal to knee
3) Fear Avoidance Beliefs Questionnaire: <19 points
4) Segmental mobility testing: ≥ 1 hypomobile segment in lumbar
5) Hip Internal Range of Motion: ≥ one hip with > 35 degrees IR ROM

***Positive Likelihood Ration 13.2 and 92% chance of successful outcome by end week 1

Reference:

1) Childs JD, Fritz JF, Flynn TW, et al. A Clinical Prediction Rule to Identify Patients with Low Back Pain Most Likely to Benefit from Spinal Manipulation: A Validation Study. *Annals of Internal Medicine*. 2004; 141(12): 920-928.

2) Fritz JM, Childs JD, Flynn TW. Pragmatic Application of a Clinical Prediction Rule in Primary Care to Identify Patients with Low Back Pain with a Good Prognosis following a Brief Spinal Manipulation Intervention. *BMC Family Practice.* 2005; 6(29): 1-8.

Are Physical Therapists qualified to perform spinal manipulation?

In the state of North Carolina, physical therapists may perform spinal manipulation with a prescription from a physician. All you need to do is write "spinal manipulation lumbar spine: evaluate and treat" when filling out the prescription. The other thing to remember is that **physical therapists use spinal manipulation, when appropriate, as only one part of an overall treatment program that is designed to foster independence in patients rather than creating a relationship in which the patient is passive.**

Is spinal manipulation safe?

Spinal manipulation in the lumbar spine has been shown to be very safe and effective especially when performed in a mid-physiological range of joint position while the patient is loaded and under the control of a trained physical therapist. This differs from other methods of spinal manipulation in which the practitioners will load at the end of physiological range of the joint. At Gaston Rehab Associates, Inc. our physical therapists are skilled in performing the mid physiological range spinal manipulation in the lumbar spine.

How do you measure the effectiveness of the treatment?

We use the Oswestry Disability Questionnaire which has been validated and tested for reliability in order to accurately assess objective outcomes. We also look for reduced Visual Analog Pain Scale (VAS) scores.

Reference:

1) Fairbank JC, Couper J, Davies JB, O'Brien JP. The Oswestry Low Back Pain Disability Questionnaire. *Physiotherapy*. 1980; 66(8): 271-273

2) Fairbank JC, Pynsent PB. The Oswestry Disability Index. *Spine*. 2000. 25(22): 2940-2953

How do I use the Oswestry Low Back Disability Questionnaire?

The Oswestry Low Back Disability Questionnaire is a questionnaire designed to quantify the level at which a person's pain is affecting their function. The questionnaire has been validated and is reliable.

The Oswestry is scored based on the response that the patient circles. A number from 0 -5 is assigned to each section with the first response being graded as a "0" and the last being graded as a "5."

The score is then calculated based on the number of questions answered as follows:

$$\frac{(\text{Total Score})}{(5 \times \text{Number of questions answered})} \times 100$$

A score of less than 10% is considered to be normal. A Spanish translation is also available, as are many other languages, to assist with collecting objective data. Persons with scores above 10% would likely benefit from physical therapy intervention.

1) Fairbank JC, Pynsent PB. The Oswestry Disability Index. *Spine*. 2000. 25(22): 2940-2953

2) http://www.orthosurg.org.uk/odi/ accessed online 10/20/06