

**Chiropractic manipulation in the treatment of acute back pain and sciatica
with disc protrusion:
A randomized double-blind clinical trial of active and simulated spinal
manipulations**

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KEY POINTS FROM THIS ARTICLE:

- 1) The purpose of this study was to assess the short- and long-term effects of spinal manipulations on acute back pain and sciatica with disc protrusion. It is a randomized double-blind trial comparing active and simulated manipulations for these patients. The study used 102 patients. The manipulations or simulated manipulations were done 5 days per week by experienced chiropractors for up to a maximum of 20 patient visits, "using a rapid thrust technique." Re-evaluations were done at 15, 30, 45, 90, and 180 days.
- 2) Specifically, 64 men and 38 women were randomized to manipulations (53) or simulated manipulations (49).
- 3) The aim of the thrust side-posture chiropractic manipulations of the spinal column was to restore the physiological motor unit movement.
- 4) "Acute back pain and sciatica are major sources of disability, with impairment of daily living activities."
- 5) Spinal manipulation is widely used in the treatment of low back pain and sciatica.
- 6) Rationales for using manipulation in the treatment of low back pain and sciatica include:
 - Reduction of a bulging disc
 - Correction of disc displacement
 - Release of adhesive fibrosis surrounding prolapsed discs or facet joints
 - Release of entrapped synovial folds
 - Inhibition of nociceptive impulses
 - Relaxation of hypertonic muscles

- Unbuckling displaced motion segments
- 7) Pain radiation was evoked by specific clinical tests:
- Straight leg raising
 - Wasserman maneuver (hyperextension of the hip with the patient in the prone position with the knee flexed at 90 degrees; this maneuver evokes pain by stimulating the L2–L4 roots)
- 8) “Active manipulations have more effect than simulated manipulations on pain relief for acute back pain and sciatica with disc protrusion.”

	Real Manipulations	Simulated Manipulations
# of Subjects	53	49
# of Local Pain Free Subjects	28%	6%
# of Radiation Pain Free Subjects	55%	20%

- 9) “At the end of follow-up a significant difference was present between active and simulated manipulations in the percentage of cases becoming pain-free (local pain 28% vs. 6%; radiating pain 55% vs. 20%).”
- 10) Active manipulations resulted in reduction of radiating pain and by a lower number of days on, and prescriptions of, nonsteroidal anti-inflammatory drugs.
- 11) “Patients receiving active manipulations enjoyed significantly greater relief of local and radiating acute LBP, spent fewer days with moderate-to-severe pain, and consumed fewer drugs for the control of pain.”
- 12) Follow-up MRI findings were unchanged from baseline, including in those who clinically improved.
- 13) “No adverse events were reported.”
- 14) The authors concluded that chiropractic spinal “manipulations may relieve acute back pain and sciatica with disc protrusion.”

COMMENTS FROM DAN MURPHY

This study supports that side-posture adjusting is not only effective but also safe in the treatment of lumbar disc herniation with compressive neuropathology and sciatica.