

## **Treatment of Lumbar Intervertebral Disc Protrusions by Manipulation**

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#### FROM ABSTRACT:

From 1975 through 1983, a total of 517 patients with protruded lumbar discs were admitted for manipulative treatment. Of these, 76.8% had satisfactory results. There were 73 recurrences (14.1%) at intervals ranging from two months to 12 years.

Forty-seven cases (9%) did not respond to manipulation.

These results indicate that manipulation of the spine can be effective treatment for lumbar disc protrusions.

In general, the manipulation consists of eight maneuvers in three positions.

Practice is necessary to become proficient in spinal manipulation techniques.

#### THESE AUTHORS ALSO NOTE:

Low back pain accounts for one-third of all orthopedic outpatient visits.

"In 1958, a search began in traditional Chinese medicine for a method of treating low back pain that was worthy of trial after integration with modern Western orthopedics. Manipulation of the spine was found to give remarkable relief in certain cases."

Historically, manipulation has been used in Chinese healthcare for thousands of years. By the Tang Dynasty (618-907 AD), "manipulation was fully established and became a routine for the treatment of low back pain."

"In the Western world, Hippocrates was considered to be the earliest pioneer to have documented manipulation."

"The science and art of manipulation may gain better acceptance by the medical profession as further research reveals a scientific basis for these procedures."

In the photographic depiction of the eight procedures used by these authors, one is clearly similar to a side posture rotary manipulation of the lumbar spine. This is accompanied with the following descriptions:

**“The patient is placed on the sound side first with the hip and knee of the painful side flexed and the sound side straight. The operator rests one hand in front of the shoulder and the other hand on the buttock. By simultaneously pulling the shoulder backwards and pushing the buttock forwards, a snap or click can usually be heard or felt. Then manipulate in the opposite direction and a similar snap or click may be heard or felt. This manipulation may then be repeated on the other side as required.”**

“Most protruded discs may be manipulated. When the diagnosis is in doubt, gentle force should be used at first as a trial in order to gain the confidence of the patient.”

“Manipulation may also be used as one component of the combined treatment for ‘facet syndrome’ and for associated lesions of extradural origin, such as ligamentous or muscular lesions.”

“For a central protrusion or a huge disc with incontinence or paraplegia, manipulation is of course strongly contraindicated.”

“Gaping of the disc on bending and rotation may create a condition favorable for the possible reentry of the protruded disc into the intervertebral cavity, or the rotary manipulation may cause the protruded disc to shift away from pressing on the nerve root.”

In this study, the protruded discs were found at these levels:

L4-L5	81%
L5-S1	16%
Multiple levels	2%
L3-L4	1%

“In all, 434 of 517 (83.9%) cases responded well to manipulation. Therefore, our impression is that most lumbar disc protrusions could be effectively treated by manipulation.”

Manipulation produces passive motion just beyond the extreme range of motion so that the ligaments are put under tension.

“The manipulation will only be beneficial just prior to the critical point. The amplitude of force applied cannot be measured and can only be estimated by experience. Therefore, expertise plays an important role in the success of manipulation.”

Some patients may need to be manipulated while under anesthesia.

"Manipulation usually begins with preparatory movements of the vertebral joints to their extreme and then rotation is carried out."

"During manipulation a snap may accompany rotation. Subjectively it has dramatic influence on both patient and operator and is thought to be a sign of relief."

Rotation "is the key maneuver of the manipulation."

"If derangement of the facets or subluxation of the posterior elements near the protruded disc occurs, the rotation may have caused reduction, giving remarkable relief."

#### KEY POINTS FROM DAN MURPHY:

- 1) Low back pain accounts for one-third of all orthopedic outpatient visits, and is often related to problems with the intervertebral disc.
- 2) Manipulation has been used in Chinese healthcare for thousands of years. By the Tang Dynasty (618-907 AD), "manipulation was fully established and became a routine for the treatment of low back pain."
- 3) "In the Western world, Hippocrates was considered to be the earliest pioneer to have documented manipulation."
- 4) In this study of 517 patients with protruded lumbar discs 84% responded well to manipulation, and 9% did not respond to manipulation.
- 5) These authors conclude, "manipulation of the spine can be effective treatment for lumbar disc protrusions." "Most lumbar disc protrusions could be effectively treated by manipulation."
- 6) In the photographic depiction in the article, there is clearly a side-posture rotary manipulation of the lumbar spine, described as follows:  
  
"The patient is placed on the sound side first with the hip and knee of the painful side flexed and the sound side straight. The operator rests one hand in front of the shoulder and the other hand on the buttock. By simultaneously pulling the shoulder backwards and pushing the buttock forwards, a snap or click can usually be heard or felt. Then manipulate in the opposite direction and a similar snap or click may be heard or felt. This manipulation may then be repeated on the other side as required."
- 7) These authors state that *rotation* "is the key maneuver of the manipulation." "Manipulation usually begins with preparatory movements of the vertebral joints to their extreme and then rotation is carried out."

8) "Gapping of the disc on bending and rotation may create a condition favorable for the possible reentry of the protruded disc into the intervertebral cavity, or the rotary manipulation may cause the protruded disc to shift away from pressing on the nerve root."

9) "During manipulation a snap may accompany rotation. Subjectively it has dramatic influence on both patient and operator and is thought to be a sign of relief."

10) "If derangement of the facets or subluxation of the posterior elements near the protruded disc occurs, the rotation may have caused reduction, giving remarkable relief."

11) The incidence of protruded discs was:

L4-L5	81%
L5-S1	16%
Multiple levels	2%
L3-L4	1%

12) "Most protruded discs may be manipulated. When the diagnosis is in doubt, gentle force should be used at first as a trial in order to gain the confidence of the patient."

13) "Manipulation may also be used as one component of the combined treatment for 'facet syndrome' and for associated lesions of extradural origin, such as ligamentous or muscular lesions."

14) "For a central protrusion or a huge disc with incontinence or paraplegia, manipulation is of course strongly contraindicated."

15) "The manipulation will only be beneficial just prior to the critical point. The amplitude of force applied cannot be measured and can only be estimated by experience. Therefore, expertise plays an important role in the success of manipulation."

16) Practice is necessary to become proficient in spinal manipulation techniques.