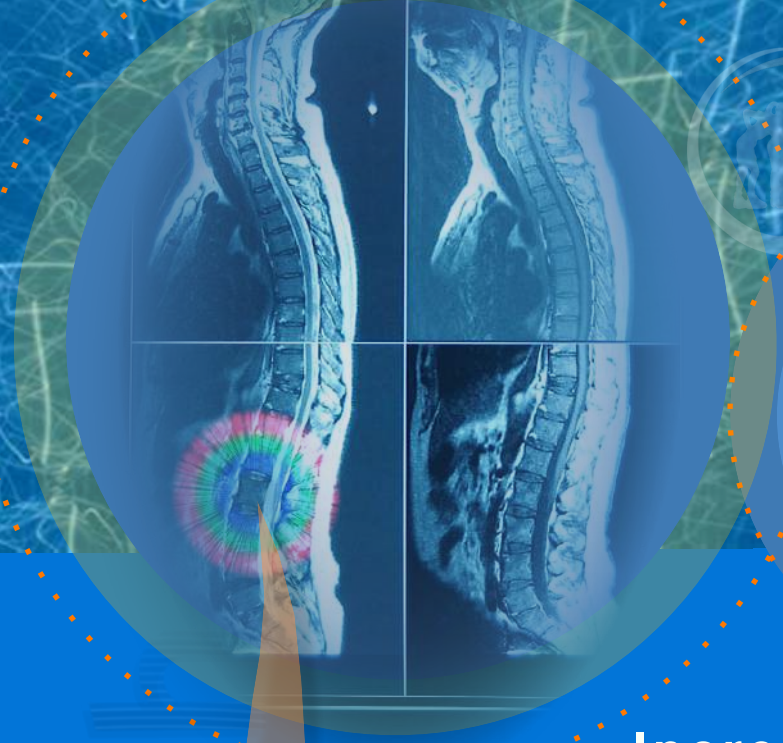


Restoration of disk height through non-surgical spinal decompression[1]

Increase Disk Height

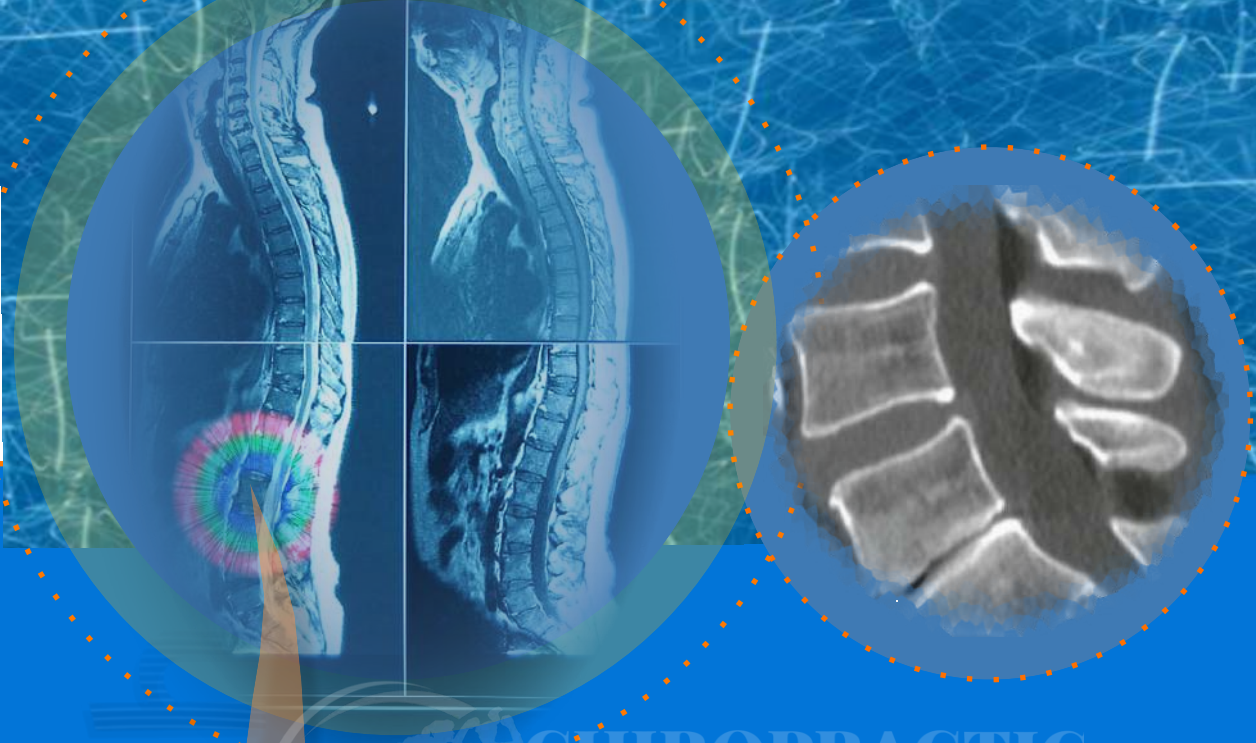
This recent study examined the records of 30 patients with low back pain who underwent a 6-week protocol of non-surgical spinal decompression, and who had CT scans before and after treatment. The study concluded that non-surgical spinal decompression was associated with reduction of pain and an increase in disc height. A randomized controlled trial is needed to confirm these promising results.

Background

Because previous studies have suggested that motorized non-surgical spinal decompression can reduce chronic low back pain (LBP) due to disc degeneration (discogenic low back pain) and disc herniation, it has accordingly been hypothesized that the reduction of pressure on affected discs will facilitate their regeneration. The goal of this study was to determine if changes in LBP, as measured on a verbal rating scale, before and after a 6-week treatment period with non-surgical spinal decompression, correlate with changes in lumbar disc height, as measured on computed tomography (CT) scans.

An estimated 80% of the population will suffer from low back pain (LBP) at some point of their lives. Low back pain is the number one factor limiting activity in patients less that 45 years old, the second most frequent reason for doctor's visits, and the third most common cause for surgical procedures. In addition to imposing upon patients' quality of life, LBP is of significant socioeconomic relevance because it may lead to a temporary loss of productivity, enormous medical and indirect costs, or even permanent disability.

1 Apfel CC, Cakmakkaya OS, Martin W, Richmond C, Macario A, George E, Schaefer M, Pergolizzi JV. Restoration of disk height through non-surgical spinal decompression is associated with decreased discogenic low back pain: a retrospective cohort study. BMC Musculoskelet Disord. 2010 Jul 8;11:155. doi: 10.1186/1471-2474-11-155. PMID: 20615252; PMCID: PMC2912793 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2912793/.



Results

We identified 30 patients with lumbar disc herniation with an average age of 65 years, body mass index of 29 kg/m^2, 21 females and 9 males, and an average duration of LBP of 12.5 weeks. During treatment, low back pain decreased from 6.2 to 1.6 and disc height increased from 7.5 mm to 8.8 mm. Increase in disc height and reduction in pain were significantly correlated.

Conclusions

Non-surgical spinal decompression was associated with a reduction in pain and an increase in disc height. The correlation of these variables suggests that pain reduction may be mediated, at least in part, through a restoration of disc height. A randomized controlled trial is needed to confirm these promising results. [2]

Key Facts of Study

Conditions Treated

- Nerve pain and burning radiating down legs

Protocol

- 22 decompression treatments over 7 weeks

Pre Treatment Imaging

- MRIs showed disc protrusions
- Reduced disk space
- Degenerative spinal conditions

Post Treatment

- Pain reduced to 1 from 10 (on typical scale of 1-10)
- Pain and burning virtually eliminated
- Muscle strength increased

Post Treatment MRI

- Herniated disc size reduction
- Increased height of discs

[2] Individual results may vary. These statements have not been evaluated by the FDA.