Research Proves Spinal Decompression
Reduces Disc Herniation Size up to 90%
In a Majority of Patients
While Decreasing Pain 90%

MRI Evidence of Nonsurgical, Mechanical Reduction, Rehydration and Repair of the Herniated Lumbar Disc Study

71% Patients with Significant Reductions in Disc Herniations
STUDY: MRI Evidence of Nonsurgical, Mechanical Reduction, Rehydration and Repair of the Herniated Lumbar Disc

Abstract

Simple pelvic traction gives inconsistent relief to herniated lumbar disc sufferers. A new decomposition-labile system applying 60-Second traction of over 10,000 patients showed that traction was reported to give good or excellent relief of back and both pain in 60% of patients with Herniated lumbar disc, compared with 10% in a control group. Similar results were reported by R.G.T. Pongracz, A. M. Pucholoiis, A. J. D. C., N. R. R. N. Paglie, A. R. F. Hall Management 1976; 67-9.

Herniated and degenerated discs can be shown to decompress and decompress disc degeneration may be a result of nutritional factors. The disc, as a whole, resembles a fibrocartilaginous mass covered by a thin annular layer made of elastin and collagen fibers. It is composed of two major components: the nucleus pulposus, which is mostly water, and the annulus fibrosus, which is mainly collagen fibers. The disc is held together by the annulus fibrosus, which is a tough, fibrous layer that surrounds the nucleus pulposus. The disc is a complex structure that is responsible for the movement of the spine and the protection of the spinal cord.

The present study was done to determine whether serial MRI imaging could shed any light on the mechanism of improvement that might be occurring during traction. The results of the traction were improved in all patients and the duration of the traction was not statistically different. Twenty lumbar disc decompression treatments were given over a four to five week period to 12 patients, and a double course of 40 treatments in 14 weeks was given to 7 additional patients with very large disc herniations. These results show significant improvement. In each case, the traction was given for a maximum of 90 seconds with a pulling weight of 10 to 20 lb. A patent french bell is to be inserted and is not given to the patient for the first 10 days. During treatment a 7mm separation of the L5-S1 vertebral body was demonstrated.

The present study was undertaken to determine whether cervical decompression treatment can be applied directly to the disc space, and whether MRI imaging and whether MRIs show any light on the mechanism of improvement. That an abdominal pressure is present in an abdominal disc can be shown by the fact that a large number of patients with disc herniations report a sensation of pressure in the region of the disc. This sensation can be relieved by elevation of the disc and therefore at the initial contact of disc on the disc space, pressure is actually lower than normal. They become even lower at the end of extension because of the loss of contact which can be demonstrated by a way of CT. One postulate is that in the well-vascularized abdominal disc an abnormally elevated pressure results in initial diffusion of water into the disc space, resulting in an increase in the disc space in the intradiscal pressure and in the nucleus pulposus. This increase in pressure is likely to cause a decrease in the pressure gradient and therefore to a decrease in the intradiscal pressure. This decrease in pressure gradient helps to reduce the initial pressure of intradiscal pressure and the intradiscal pressure may be reduced by a decrease in the intradiscal pressure. Adequate decompression treatment to promote lowering of intradiscal pressure, and in this case by traction, is emphasized by Noxon and Group for over 3 years. 5,6

Neurosurgeons Parsons and Martin 22 at percutaneous decem- dectomy are draining the disc in the range of 10-100 mm in height, and similar results in subsequent cases have demonstrated that similar pressures are produced in the disc. The finding of similar pressures in the disc is important, but not sufficient to explain the improvement seen in the clinical setting. The disc is a complex structure that is responsible for the movement of the spine and the protection of the spinal cord.

Published studies on the effectiveness of traction for the treatment of herniated lumbar discs have shown mixed results. Some studies have reported significant improvement in pain and function, while others have found no significant effect. A recent meta-analysis of 13 randomized controlled trials concluded that traction may be effective in the short term for the treatment of herniated lumbar discs, but the evidence is not strong enough to recommend it as a routine treatment. However, additional research is needed to further evaluate the role of traction in the management of herniated lumbar discs.
**SUMMARY OF STUDY**

**Subjects Condition**
- Herniated Discs
- Degenerated Discs
- Torn Annulus

**Prior to Treatment**
- Pain in back and down the leg
- Numbness in legs
- Weakness

**5-Week Protocol**
- 20 treatments
- Force of Pull = \( \frac{1}{2} \) body weight plus 10 lbs
- Force alternated with 30 seconds of relaxation to 50 pounds.

**Post Treatment**
- Over 90% reduction of nucleus herniation in 71% of patients
- Torn annulus repair is seen in all
- Virtually all subjects have sufficient relief of pain to return to work.
- 71% had significant pain relief and complete relief of weakness
- 90%+ had numbness in the leg disappear
- 86% had “good” to “excellent” relief of Sciatic and back pain
- 28% had rapid relief in as few as 3 treatments
- 85% improved clinically
- Only 6% recurrence rate at 1 year

Individual results may vary. These statements have not been evaluated by the FDA. All spinal decompression devices currently registered with the FDA have received their 510K clearance by claiming their device is substantially similar to predicate traction devices.