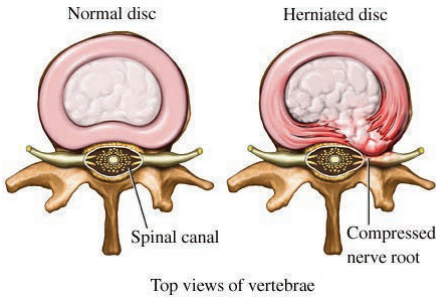
Current Treatment Programs

- Medication such as NSAIDS, muscle relaxers, and facet injections can help manage symptoms but do not treat the disc directly.
- Physical therapy produces joint mobility and muscular rehabilitation that will also help manage symptoms but as with medication, can not treat or help resorb herniated discs that cause pain.
- Chiropractors that utilize biomechanical analysis and use vertebral manipulations to re-establish normal biomechanical alignment can effectively treat herniated discs but it takes time to do so. In some acute cases, severity of pain can restrict treatment complicating and prolonging care plans. The more severe cases that do not respond completely to chiropractic realignment require non surgical spinal decompression.



Top views of vertebrae

Decompression of Intervertebral Discs

- In order to alleviate pain and allow IVDs to heal, the herniated material that is protruding from the disc must be reabsorbed.
- If a Disc that is compressed is slowly allowed to decompress, the herniated material that has been pushed outside the annulus fibrosus will essentially be drawn back into the disc due to the visco-elastic nature of the nucleus pulposus and eliminate nerve compression.

Non-Surgical Spinal Decompression

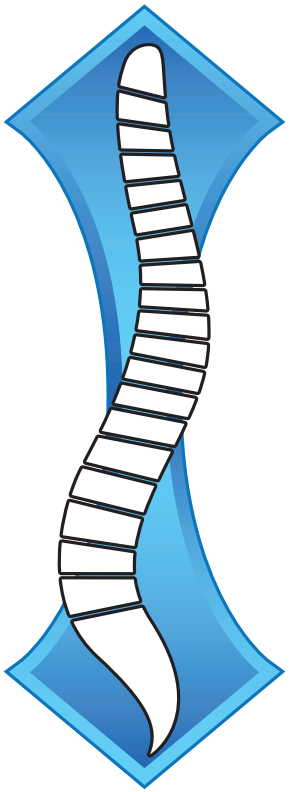
- The Dx4 allows for customized axial traction of the lumbar spine that decompresses herniated discs and facilitates reabsorbtion of herniated material.
- Unlike the DRX9000, the Dx4 passively decompresses the spine via spring loaded lumbar slide mechanism with a progressive pull up to 50% of the patients body weight.
- The Dx4 can also easily be elevated or lowered to allow for specific decompression of L1-L5 disc

Dellanno
FAMILY CHIROPRACTIC CENTER

Ronald P. Dellanno DC
Michael D. Dellanno DC
Christa Pescatore DC

532 Broad Street
Bloomfield, NJ 07003
Ph: 973-429-9650

Non-Surgical Spinal Decompression

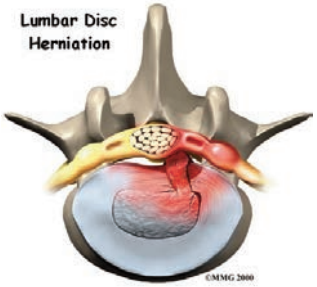


Dellanno
FAMILY CHIROPRACTIC CENTER

Ronald P. Dellanno DC
Michael D. Dellanno DC
Christa Pescatore DC

Introduction to Spinal Decompression

- Americans spend at least $50 Billion each year on low back pain and it is the second most common neurological ailment in the US.
- Low back pain is the second most frequent reason for visits to the physician.
- 80% of people over the age of 30 will experience back problems at some point in their lives. 30% of those will have recurring problems.
- Each year, there are approximately 916,000 spinal surgeries performed in the US.
- Back pain accounts for almost one fourth of all occupational injuries and illnesses.
- In a recent study by JAMA, Nov. 22/29, back surgery was seen as less effective for treating herniated discs the non surgical treatment. (statistics referenced from WebMD)



The Human Spine

- The spine is comprised of 24 separate bones aligned on top of one another.
- When viewing the spine from front to back you should see the vertebrae in a straight alignment.
- Between each vertebrae is a intervertebral disc. The disc is soft structure that is essentially a water gelatinous sac surrounded by a hard but flexible shell.
- The discs serve as a source of shock absorption as well as a lubricating pad allowing smooth movement of the vertebrae on top of one another.

Three Spinal Curves

- The three spinal curves are essential to normal biomechanics because they allow each individual vertebrae to work with one another as a single unit.
- The function of this unit is to allow for compression and decompression not unlike a spring or shock absorber.
- The three spinal curves are needed for normal physiologic function of the spine. If the cervical lordotic curve is significantly improved, the lumbar HNP will unlikely return after spinal decompression

Intervertebral Discs

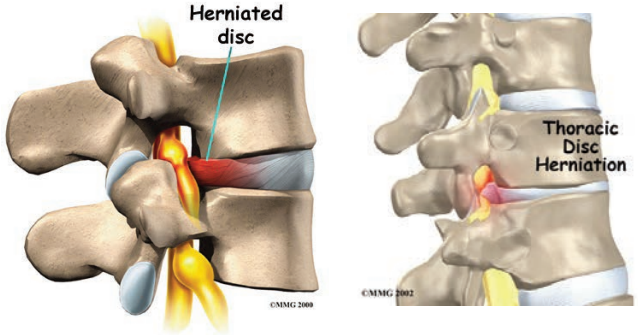
- The IVD are comprised of a gel like substance known as the Nucleus Pulposus and the hard outside lining called the Annulus Fibrousus
- The IVD serve as both a source of shock absorption and as a pad to allow smooth movement between adjoining vertebrae.

Herniated Discs

A herniated disc occurs when the nucleus of a vertebral disc breaks through the annulus fibrosus.

Herniated discs are most often caused by trauma to the spine that allow either excessive compression or shear like forces that can tear open the annulus fibrosus.

Depending on the location of the disc, acute radicular pain can be noted traveling down the dermatomal path of the disc in question.



The most common sites for herniated discs are at Lumbar L4-L5 & L5-S1 and in the Neck at C5-C6.

A Posterior or posterior later disc herniation at these levels can produce pain locally that radiates down the back of the leg that is also known as sciatica.