

IDD Therapy

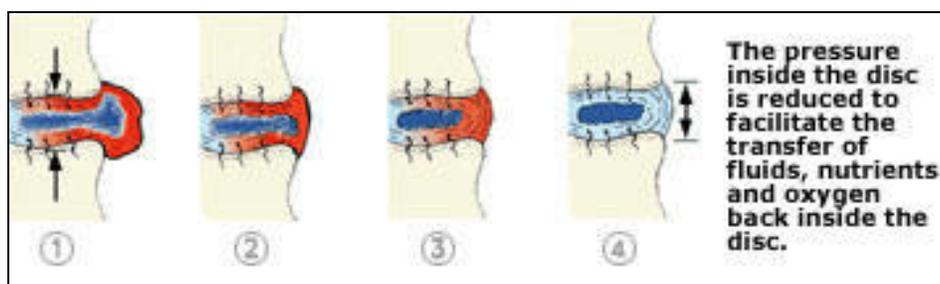
Since 2001 over 100,000 back pain sufferers have been treated with **IDD Therapy®** and with an ever-increasing number of treatment providers internationally, **IDD Therapy®** is rapidly changing the face of modern back pain care.

How does IDD Therapy® work?

IDD Therapy® can isolate each lumbar vertebrae (L1, L2, L3, L4 or L5) and distract the vertebrae surrounding an injured disc 5 to 7 millimeters. The 25 to 30 minute treatment provides static, intermittent, and cycling forces on structures that may be causing low back pain.

During treatment, intradiscal pressure is dropped from a positive 25 millimeters mercury to a negative 150 millimeters mercury. This negative pressure promotes the diffusion of water, oxygen, and nutrients into the vertebral disc area, thereby re-hydrating the degenerated disc.

Repeated pressure differential promotes retraction of a herniated nucleus pulposus (the elastic core of the intervertebral disc). The IDD Therapy® treatment can reduce pressure on the vertebral joints, promote retraction of herniated discs, promote self healing and rehabilitation of damaged discs, thereby relieving low back pain.



1. Decompression, Reduction and Stabilization of the Lumbar Spine: A Cost-Effective Treatment for Lumbosacral Pain

American Journal of Pain Management, No. 2 April 1997

Emerging Preliminary Findings

C. Norman Shealy, MD, PhD, and Vera Borgmeyer, RN, MA

The protocol was to combine traditional labor-intensive physical therapy techniques to produce mobilization of the spinal segments, combined with stabilization, biofeedback, TENS and effective education in order to reinforce the healing process. A simpler, more reproducible and cost effective protocol was the primary objective of this treatment regimen.

The DRS (Decompression Reduction Stabilization) System, developed through years of clinical research, was the result of the combined efforts of neurosurgeons, orthopedic surgeons and medical manufacturing specialists. Initial FDA registration was issued in May of 1998.

The DRS System was developed specifically to reduce intra-discal pressure at the desired spinal level. Using a specific combination of lumbar positioning and varying the degree and intensity of the force, a distraction and decompression was produced. With MRI, up to a 7-mm distraction at 30 degrees to L5, with several patients was documented. A distraction at different spinal levels was observed by altering the position and degree of force.

Further developments in the DRS System made way to a new revolutionary device, which represented a quantum leap forward in bioengineering for the treatment of low back pain. Over

5,000 patient case histories were tracked and data applied to the designing of this Disc Distraction System. This data was later organized as the IDD Therapy protocols.

2. New Concepts in Back Pain Management: Decompression, Reduction and Stabilization

*Pain Management Fifth Edition, 1998 of the study:
C.Norman Shealy MD, PhD, Vera Borgmeyer, RN,*

Conventional traction involves simple mechanical stretch, which when applied continuously, causes paravertebral muscle recruitment and a resulting increase in intradiscal pressure. Contrary to conventional traction, the Disc Decompression System applies pressures on a specifically targeted vertebra in a proprietary, graduated manner, which bypasses the inherent neurological mechanisms that lead to firing of stretch receptors in the para-vertebral structures.

This decreased resistance to the applied forces allows a vertebral spatial distraction which can markedly reduce intradiscal pressures. This promotes retraction of herniated disc material and facilitates influx of oxygen, proteins and other substrates. In recent case studies, this painless, non-invasive treatment has been shown to be 86% effective in relieving low back pain in patients with disc problems. Recent field experience has demonstrated up to 95% efficacy.

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

American Society of Neuroimaging April 2001 Paper
Edward L. Eyerman, M.D, St. Louis University School of Medicine
IDD THERAPY® TREATMENT - MRI STUDY

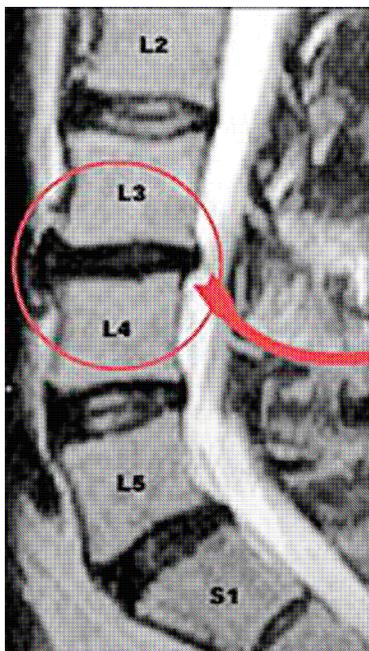


FIGURE 1A. Pre-treatment MRI (2/2/2000) of a patient with disk desiccation at L3-4 with rupture of the annulus.

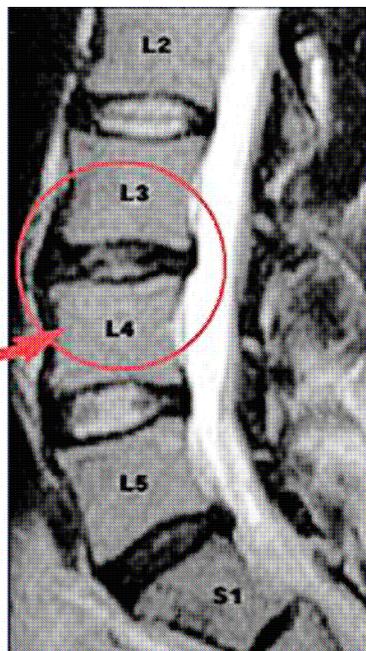


FIGURE 1B. Post-treatment MRI (3/20/2000) of the same patient after 11 sessions of treatment.

- These are Pre and Post MRI studies of a 52-year old man.
- The patient had been injured for 1-½ years and had undergone 9 months of Physical Therapy. But no improvement in pain
- Disc herniations were found at both L3-L4 and L5-S1.
- After only 11 sessions of a typical 20-session protocol on the IDD Therapy System, the patient was much improved.
- Disc L3-L4 had an improved hydration status, the herniation anterior and posterior were diminished and the disc height improved.
- The normal disc above and below demonstrated an increase in disc height and improved hydration.

4. Distraction Techniques for Lumbar Pain

A review of intervertebral decompression that use distraction techniques that widen disc spaces, lower intradiscal pressure and promote disc recovery.

Practical Pain Management, Vol. 3, No. 2 Mar/Apr 2003

Alan E. Ottenstein, MD

5. Intervertebral Differential Dynamics Therapy (IDD)

Retrospective clinical pilot study

Practical Pain Management, April 2005

C. Norman Shealy, MD, PhD

6. Long-Term Effect Analysis of IDD Therapy in low back pain: A retrospective clinical pilot study

Retrospective clinical pilot study

American Journal of Pain Management, July 2005, AJPM 2005; 15:93-97.

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C. Norman Shealy, MD, PhD, Nirman Koladia, MD, and Merrill M. Wesemann, MD

7. IDD Therapy in Back Pain Treatment: A Clinical Trial Comparing Key Diseases of Low Back Pain.

Annual Supplement of Abstracts: Southern Medical Association's 99th Annual Scientific Assembly: Oral Presentation Abstracts: Abstracts of Scientific Papers: Section on Medicine
Ganuz, Carlos MD; Shealy, Norman MD, PhD, FACS; Koladia, Nirman MD San Antonio, Texas, November 10-13, 2005

CURRENT CLINICAL TRIALS AND STUDIES

Comparison of IDD Therapy and standard non-operative care for low back pain

Sint Maartenskliniek, Nijmegen, The Netherlands (from July 2006)

The Sint Maartenskliniek is a leading hospital in The Netherlands that specializes in posture and movement, and the control of both.

Study Design: randomized, placebo-controlled blind, cross over study Active Control, Crossover Assignment, Efficacy Study

Participants: D.Wierper, SMC, sports doctor M.Spruit, SMK, orthopaedic specialist J. van Limbeek, SMK, director RD W.Jacobs, SMK, Scientist