



RESEARCH STUDY
SUMMARY

**IDD Therapy in
Back Pain Treatment**

AUTHOR(S):

- Norman Shealy, M.D., Ph.D.,
FACS
- Surb Guram, MD
- Josh Gabriel, MD
- Nirman Koladia, MD

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SUMMARY:

Retrospective study of 52 patients aged 30-86, all previously referred to surgery shows significant pain relief for 94% of the patients treated with IDD Therapy and the ACCU-Spina System.

**Please see educational credits in study.*

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

*Norman Shealy, M.D., Ph.D., FACS, Surb Guram,
MD, Josh Gabriel, MD, and Nirman Koladia, MD.*

Low back pain impacts more than 65 million Americans per year and ranks second only to headaches as the most frequent cause of pain¹. The most common site for back pain is the lower lumbar area because it bears the most weight and stress. Even though back pain is rarely life threatening, the annual cost in terms of lost productivity, medical expenses and workers' compensation benefits runs into the tens of billions of dollars annually in the United States¹.

Although some form of spinal traction/distraction has been used for centuries, the results were erratic and inconsistent, so that most spinal specialists began to abandon this approach in the 1960s². Then, Burton and Nida introduced the concept of Gravity Lumbar Reduction Therapy³. They literally strapped patients upright in a harness for eight hours a day for one to four weeks, with results best in patients with ruptured discs; but the complication of hypotension and eight hours of immobilization doomed this radical approach.

Later, a pneumatic traction/distraction device that reputedly "decompressed" the lumbar spine using a fixed table became popular. This device required the patient to actively hold themselves in the prone position by manually grasping two grips at the front

of the table to counteract the traction being applied to the axis of the spine for thirty minutes. Smart et al evaluated this system at six months after the end of treatment. Twenty seven percent (6/22) of patients reported positive responses which questions the long term efficacy of this device⁴. Even more troubling was the observation that the prone position actually increased lumbar lordosis and that the active patient involvement makes relaxation of the paravertebral muscles difficult, clearly undesirable for optimal spinal dynamics.

In 1997, Borgmeyer and Shealy presented a significant new approach to the management of back pain. The preliminary results suggested that decompressive mobilization of the lumbar spine was beneficial in 86% of patients with ruptured intervertebral disc and 75% of those with facet arthrosis. This led to 29 patients to vertebral distraction of 7 to 15 minutes and good to excellent pain relief in 12%, 14 patients, with MRI confirmed ruptured discs. All had had surgery recommended. Only one subsequently required surgery. Of eight patients with degenerative disc disease or facet arthrosis, six achieved good to excellent pain relief.

Continuing evolution of the technology discussed above has led to further improvements in computerized physical therapy of the lumbar spine. The newest devices such as Accu-SPINA® deliver remarkably comfortable, smooth therapy which definitely delivers Intervertebral Differential Dynamic, IDD®, therapy. IDD Therapy® does not require active

participation of the patient in order to achieve the desired effects. Comfort during the treatment has improved as well as the ability to focus on specific spinal structures with optimum mobilization and clinical relief. Forces applied to vertebral levels are precise, graduated, and reproducible. I have been able, as an independent consultant, to review results currently being reported from ten clinics in over 500 patients. Improvement rates of 65 to 88% confirm my earlier results.⁶ Of considerable importance is the fact that patients who receive the recommended 20 IDD treatments improve much more than those who receive less. For reasons that are not obvious, some patients do not complete the treatment protocol despite the fact that they are improving. More importantly, the study cited demonstrates average pain reduction of 76% one year after treatment which indicates this may be a curative treatment and differentiates IDD Therapy® from previous technology which reports palliative effects⁶. Current exploration of vibration, heat, interferential stimulation, distraction, oscillation and other adjunctive mobilization adjustments offer even greater potential for the future of Intervertebral Differential Dynamic Therapy.

Presented here is a retrospective study of 52 patients treated at two clinics. Fifty-seven percent were female and 43% were male, ranging in age from 30 to 86. This is the first study of its kind to focus a data compilation of specific diseases, specifically spinal canal stenosis, spondylosis, degenerative

disc disease, facet syndrome, and herniated nucleus pulposus. Only 25% of patients completed all 20 treatment sessions, but 94% of the patients achieved improvement in pain and 83% achieved 50% or greater pain relief. The overall pain relief is significant at the 0.001 level. Interestingly, patients with facet syndrome improved even more than those with degenerative disc disease. These statistics compare favorably with those achieved by surgical intervention, with far greater safety and considerably lower costs.

Summary – During the past decade, the Accu-SPINA® has markedly increased successful outcomes of non-surgical physical therapeutic mobilization for spinal pain, including ruptured discs, as well as locked and degenerative facet pain syndromes. Specific individual spinal segment dynamic mobility has led to satisfactory pain relief and improved quality of life in up to 94% of patients, many of whom have failed other “conventional” approaches. This pain relief is significant at the 0.001 level. Intervertebral Differential Dynamic Therapy, IDD®, appears to be the current optimal recommendation for most lumbar pain syndromes and should be considered before surgical intervention, except in those patients who have nerve root symptoms requiring intervention.

While this is a very supportive retrospective study, which points to significant therapeutic benefits of the Accu-SPINA®, additional controlled prospective studies are being conducted to more effectively quantify these promising indicators.

REFERENCES:

1. Mayo Clinic, "Back Pain", August 2004, <http://www.mayoclinic.com/invoke.c-fm?id=DS00171>.
2. Hood L and Chrisman D. Intermittent pelvic traction in the treatment of ruptured intervertebral disk. *Journal of the American Physical Therapy Association* 1968;48(1):21-30.
3. Burton C and Nida G. Gravity lumbar reduction therapy program. Minneapolis: Sister Kenny Institute 1976
4. MSAC application "Vertebral Axial Decompression Therapy or Chronic Low Back Pain". June 2001, <http://www.msac.gov.au/pdfs/reports/msac1012.pdf#search='MSAC%20application%201012%2C%20vertebral%20axial%20decompression'>
5. Shealy CN and Borgmeyer V. Decompression, reduction, and stabilization of the lumbar spine: A cost effective treatment for lumbosacral pain. *American Journal of Pain Management* 1997;7(2):663-665.
6. Wesemann M, Koladia N, and Shealy CN. Long term effect-analysis of IDD Therapy® in low back pain: A retrospective clinical study.
7. Thomlinson, P. Ph.D. Two clinic Data Analysis. Burrell Behavioral Health. Springfield Missouri. 2005.

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