

# Demystifying the coding of chiropractic decompression therapy – Part I

Michael D. Miscoe March 7, 2022

## Manufacturers vs. the CPT Editorial Panel vs. the Department of Health and Human Services in the coding of chiropractic decompression therapy

With the rather prolific nature of post-payment [audits](#) by commercial insurance payers, chiropractic physicians are moving to cash practices at an enthusiastic rate – and in the process, realizing improved long-term profitability and renewed enjoyment in their professional lives. Beyond provision of traditional chiropractic care, practices making this move commonly incorporate other cash services to further improve profitability and market reach. One such service is chiropractic decompression therapy, which has long been considered (fortunately) a non-covered “experimental/investigational” service by third-party insurance payers.

### Chiropractic decompression therapy and coding

“[Decompression therapy](#)” is a “term of art” that was created by early device manufacturers as a way of explaining an alleged unique therapeutic result of certain traction devices while also attempting to justify an alternative means of coding for this type of traction.

These manufacturers, desirous of selling traction equipment at prices in excess of \$100,000, needed to find a way of avoiding the use of CPT 97012 and its relatively low reimbursement rate in order to convince potential purchasers that substantial investment necessary to purchase their equipment would be cost justified. The reimbursement for CPT 97012 averaged approximately \$6-25 depending on the payer. At these reimbursement rates, it was impossible to justify the purchase of a device with a six-figure price tag.

As a result, manufacturers initially lobbied for a decompression-specific CPT code as a means of getting better reimbursement on the basis that “decompression” traction was a different form of traction than that provided by existing traction tables. The CPT Editorial Panel denied their request given that an existing modality code accurately defined the physical agent employed by these “decompression” traction tables. Ultimately, the Department of Health and Human Services (HHS) issued a temporary national Healthcare Common Procedure Code (HCPCS) – S9090 (vertebral axial decompression, per session) to describe this particular form of traction.

Unfortunately, as a private payer code, the “S” codes (including S9090) are invalid for Medicare. This has implications in workers compensation or personal injury cases where the state cost containment rules mandate use of codes acceptable to Medicare. In the commercial insurance arena, no carrier to my knowledge (except possibly in an employer self-funded plan) pays for this code in specific or for “decompression therapy” in general. The perplexing issue is that most all carriers pay for mechanical traction.

### ‘Sounds like’ coding

Because S9090 is generally not covered and the reimbursement for CPT 97012 is considered by those performing this service to be deficient, some have turned to a variety of other “sounds like” coding options that were recommended by either manufacturers or consultants for chiropractic decompression therapy.

Codes that have been utilized include nerve decompression (CPT 64722 — Decompression; unspecified nerve(s) (specify) which is a major “open” surgical procedure with a 90-day follow-up period), or therapeutic activities (CPT 97530 — Therapeutic activities, direct (one-on-one) patient contact by the provider (use of dynamic activities to improve functional performance), each 15 minutes). These as well as other less-utilized coding alternatives are ultimately wrong. Where used, carriers consider that the use of such codes to obtain or increase the amount of payment is an improper misrepresentation of the service provided that misled the carrier into making payments that likely would not have been made had they understood what service was actually rendered.

A number of providers who have used these coding alternatives have been targeted in civil and/or criminal false claims actions. Having been involved as an expert in several of these cases, I have had an opportunity to evaluate this issue in detail from both sides.

## **Both sides of the issue**

First and foremost, [decompression](#) traction devices are all classified by the FDA as motorized traction devices. Some manufacturers have made the additional assertion that their device causes “decompression” of an intervertebral disc to occur as part of their pre-market approval submissions.

While the FDA has not classified these devices as “decompression” devices, they have permitted them to be marketed as such for chiropractic decompression therapy. Manufacturers have consistently argued that decompression traction is somehow different than traditional forms of traction. While this may be so on the basis of how the traction force is applied and the therapeutic result that such differences create, by taking this position, what most manufacturers have forgotten to consider is that regardless of whether “decompression” traction is better or produces a different therapeutic result than other forms of either axial or “inter-segmental” traction, the therapy is and will always be traction fundamentally.

Despite the differences, CPT classifies modalities based on the physical agent and the level of contact required during delivery of the service. It does not differentiate modalities based on the therapeutic result obtained. Traction is clearly a supervised therapeutic modality and the result obtained is irrelevant. To understand the significance of how modality codes are selected, it is important to consider what a physical medicine modality is and how it differs from a procedure.

*Part II of this article will appear in the next issue of Chiropractic Economics.*

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# Demystifying the coding of spine decompression therapy — part II

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## Modalities, coding selection and carrier policies for spine decompression therapy

**A modality is defined as** “Any physical agent applied to produce therapeutic changes to biologic tissues; includes but not limited to thermal, acoustic, light, mechanical or electrical energy.” By contrast, a procedure is defined as “A manner of effecting change through the application of clinical skills and/or services that attempt to improve function. Physician or therapist required to have direct (one-on-one) patient contact.” The significance of this distinction is that for modalities such as spine decompression therapy, the physical agent (and level of contact required) defines the code — not the therapeutic result achieved.

### Utilizing the physical agent

Without question, traction or spine decompression therapy utilizes the physical agent of mechanically created traction forces that are applied to produce a biologic change in the tissues. There is no application of clinical skill necessary during the delivery of the therapy that requires direct one-on-one contact such that the service could ever be classified as either a constant-attendance modality or as a procedure.

The cognitive aspect of the service occurs prior to the service and is necessary to determine settings relating to how the device will function (i.e., how much pull, how long, angle of pull, etc.) similar to electric stimulation or any other modality.

Having substantiated that decompression therapy is a modality, the only remaining issue is whether it is a supervised or constant-attendance modality. Supervised modalities are defined as: “The application of a modality that does not require direct one-on-one patient contact by the provider.” For comparison, “constant-attendance” modalities are defined as: “The application of a modality that requires direct (one-on-one) patient contact by the provider.”

It should be noted that the definitional requirement for direct “one-on-one” contact is somewhat of a misnomer given that in a separate clarification, both the AMA and CMS indicate that constant attendance can be provided to more than one patient at a time. Truly direct one-on-one contact procedures cannot be provided to more than one patient at a time. As a result, it is best to take a literal definition of constant attendance (i.e., the provider or therapist must be in constant attendance with the patient and that such attendance is necessary for effective or safe delivery of the therapy).

It has not been established that decompression therapy “requires” constant attendance or direct one-on-one contact during delivery of the therapy (hence it is supervised) and the therapeutic result is delivered completely by the physical agent produced by the device itself (hence it is a modality). In support of the assertion that only supervision is required, we find that decompression therapy can be safely performed without constant attendance. Some manufacturers have supported this in their 510(k) submissions on the basis that should a problem or adverse reaction develop suddenly, the patient can terminate the therapy.

As a result, constant attendance is not necessary, and the service is properly classified as a supervised modality. Having arrived at this conclusion, we look to the enumerated supervised modality codes and find CPT 97012, which is defined as follows: “Application of a Modality to One or More Areas; Traction, Mechanical.” This exactly describes the physical agent supplied by every “decompression” table given that for patients with a disc condition, mechanical traction forces are applied to produce the decompression effect. CPT 97012 is therefore the appropriate code.

Despite this, carriers have taken advantage of manufacturers’ arguments that “decompression” is not or is a different type of mechanical traction — if for no other reason than it permits them to create a distinction without a difference and therefore deny coverage. Some carriers specifically state that participating providers should code “decompression” therapy using S9090 instead of 97012 to ensure that, if billed by the provider or patient, the service is denied. As a result, a misunderstanding of this simple coding principle has resulted in what is arguably a great therapy that few if any carriers will knowingly pay for.

## **Spine decompression therapy and coding selection**

From a coding perspective, one must recognize that decompression is the therapeutic result of a specific form of traction — nothing more. As noted above, where modalities are concerned, the therapeutic result is irrelevant (if it was, we would need dozens of codes for electrical stimulation alone). Only the physical agent being applied (and the level of contact required) is relevant to modality code selection. CPT 97012 is the correct code for mechanically delivered traction regardless of whether it causes decompression or not.

For medicine, traction is defined in Webster’s Dictionary as follows: “1. a. The act of drawing or pulling, especially the drawing of a vehicle or load over a surface by motor power. b. The condition of being drawn or pulled. 2. Pulling power, as of a draft animal or engine. 3. Adhesive friction, as of a wheel on a track or a tire on a road. 4. Medicine. A sustained pull applied mechanically especially to the arm, leg, or neck so as to correct fractured or dislocated bones, overcome muscle spasms, or relieve pressure.”

As such, even for purposes of coding, traction is simply applying a mechanically induced pulling force. The outcome of such a force is not germane to the definition of traction either generally or in the specific circumstance of modality code selection in CPT. Unfortunately, manufacturers of “decompression” traction devices attempted to justify a different code on the basis that decompression was a better or a different type of traction, with the ultimate assumed purpose of obtaining better reimbursement for this form of traction.

While successful in establishing that “decompression” therapy is different as evidenced by the creation of the HCPCS Level II code S9090, manufacturers and providers failed to anticipate that by creating such a difference, the door has been opened to allow carriers to deny coverage for this form of traction. Carriers have taken advantage of the opportunity to deny decompression traction while continuing to pay for traditional forms of traction and have supported the decision to deny this “new” form of traction, claiming that spine decompression therapy is not proven and is experimental.

We must also understand, contrary to the inferences in most payer policies, that the specific traction table used does not make the traction “decompression” per se. Instead, the condition requiring traction and the intended therapeutic result to be achieved defines whether the traction is “decompression” or not. Commonly marketed “decompression” tables can be utilized to perform simple axial traction for conditions other than disc problems where decompression of the disc is intended. Where used in this manner, the traction is not “decompression” as defined in many payer medical policies; however, most policies do focus on the table used rather than the diagnosis of the patient and/or the intended outcome of the therapy.

## Carrier policies and the history of traction

Ultimately, we must recognize that current carrier policies were most likely motivated by negative experiences. There are a plethora of cases where exorbitantly-high fees were charged (I have seen as much as \$3,000 per treatment for the traction service alone), or what carriers have perceived as abusive coding practices (see above). As a result, reversal of the current situation of non-coverage is not likely, but if it occurs, it will likely require all of the following:

1. **Carriers will need some time to get over their prior bad experiences** relating to how this service has been billed in the past such that they might be receptive to considering changing their policies.
2. **The [S9090](#) code must be eliminated**, thereby putting an end to a code difference in the forms of traction. To deny one, carriers would have to deny all forms of traction. Since traction is and has been widely used, and is generally covered under most insurance plans, this is not likely, but some carriers have gone this route.
3. **Additional peer reviews and unbiased clinical trials** will have to be provided that support the effectiveness of this form of traction and its cost-effectiveness. Additionally, such research should provide guidance for the analysis and identification of conditions that require decompression traction and should additionally define clinically appropriate protocols for the proper application of this therapy.
4. **Providers must be willing to accept the reimbursement allowance offered by CPT 97012.** This may be the major sticking point as it is presently more advantageous (financially) for spine decompression therapy providers to charge patients directly for this service on the basis that the service is not covered.

## Decompression and reimbursement

Restrictions on the number of modalities that can be performed and decreasing allowances for any form of traction make it impossible to perform covered forms of traction profitably. Therefore, as a non-covered service, providers are free to provide “decompression” forms of traction for cash at reasonable, but profitable fees.

*[Part I of this article](#) appeared in the previous issue of *Chiropractic Economics*.*

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# Non-Surgical Spinal Decompression Therapy: Does the Scientific Literature Support Efficacy Claims Made in the Advertising Media?

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[Dwain M. Daniel, D.C.](#)

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Note from Dr. Stephen Barrett:

Non-surgical spinal decompression therapy uses a motorized traction device to stretch the lower back. The devices are two-part tables in which the upper part is fixed to the table frame and the lower part slides back and forth to provide intermittent traction. The patient is anchored to the lower part by a pelvic harness. They can provide relief in some cases of back pain but are widely promoted with unsubstantiated claims that they can correct degenerated and herniated discs without surgery. When the FDA cleared the first such device (VAX-D) as a traction device, it set limits on what the manufacturer could claim. Individual providers, provider associations, and the manufacturers have exceeded these limits.

This article explains why the studies used to promote non-surgical spinal decompression do not support the glowing claims made by its advocates. The article was originally published in [Chiropractic & Osteopathy](#) (Volume 15, Article 7, May 18, 2007). Authors in this online journal own the copyright but provide [open access](#) that permits unrestricted use and reproduction in any medium, provided the original work is properly cited. The article concludes:

There is very limited evidence in the scientific literature to support the effectiveness of non-surgical spinal decompression therapy. This intervention has never been compared to exercise, spinal manipulation, standard medical care or other less expensive conservative treatment options which have an ample body of research demonstrating efficacy. Considering the cost-benefit relationship, many better researched and less expensive treatment options are available to the clinician.

*Chiropractic & Osteopathy*, which began publishing in April 2005, is chiropractic's most science-based journal and the one most willing to examine what chiropractors do wrong. For additional information about non-surgical spinal decompression, [click here](#).

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## Abstract

Traction therapy has been utilized in the treatment of low back pain for decades. The most recent incarnation of traction therapy is non-surgical spinal decompression therapy which can cost over \$100,000. This form of therapy has

been heavily marketed to manual therapy professions and subsequently to the consumer. The purpose of this paper is to initiate a debate pertaining to the relationship between marketing claims and the scientific literature on non-surgical spinal decompression. Only one small randomized controlled trial and several lower level efficacy studies have been performed on spinal decompression therapy. In general the quality of these studies is questionable. Many of the studies were performed using the VAX-D® unit which places the patient in a prone position. Often companies utilize this research for their marketing although their units place the patient in the supine position. Only limited evidence is available to warrant the routine use of non-surgical spinal decompression, particularly when many other well investigated, less expensive alternatives are available.

## **Background**

Traction as a therapeutic intervention in the treatment of low back pain has existed for many years. Its use has progressed from simple static traction to intermittent motorized traction. A recent systematic review found only seven randomized controlled trials for intermittent motorized traction and six reported no difference in outcomes between the traction groups and the control groups [1]. The most recent incarnation of traction has been a form of intermittent motorized traction commonly referred to as spinal decompression therapy. Developers and manufacturers of the equipment along with clinicians often consider it to be a unique form of traction.

A perusal of any trade publication aimed at manual therapy professions will demonstrate intense marketing programs extolling the virtues of this new technology. An 86% success rate is claimed by many manufacturers and passed on to the consumer through individual practitioner's advertising. A recent limited online poll published in a chiropractic trade magazine stated that 38% of doctors of chiropractic are using the technology in their offices [2]. According to the Job Analysis of Chiropractic the presence of traction in the chiropractor's office has risen from 73.2% in 1991 to 80.6% in 2003 [3], which represents as many as 5,000 new traction units among chiropractors. With units priced from \$9,000 to well over \$100,000 each, spinal decompression is obviously a significant financial decision for the individual practitioner.

Several papers relating to intermittent and static traction have been published. The purpose of this paper is to open a debate on the efficacy of spinal decompression therapy, defined as motorized traction utilizing variable force, variable traction/relaxation times and in some units, variable angles of pull.

Literature searches were performed in Medline, CINAHL and MANTIS databases from January 1990 through September 2006. Search terms included decompression therapy, traction, treatment outcome, outcome assessment and evaluation studies. Additionally, keyword searches were performed using brand names of specific manufacturers. Additional material was gathered from the research sections of manufacturer web sites and hand searches. Care was taken to insure research quoted on web sites was from peer reviewed scientific journals. It was the original intent of the author to perform a traditional systematic review; that is to search the scientific literature, review the available clinical trials, grade the evidence and finally present the findings. In this case such an effort was not necessary. Only 1 randomized controlled trial, 1 clinical trial, 1 case series and 7 other papers were located. With the exception of a study pertaining to protocols and procedures, these studies will be individually reviewed.

## **Discussion**

### ***A prospective randomized controlled study of VAX-D and TENS for the treatment of chronic low back pain [4]***

The single randomized controlled trial of spinal decompression therapy compared the VAX-D® unit to transcutaneous electrical nerve stimulation (TENS) for the treatment of chronic low back pain. Subjects were recruited through advertisement and had chronic low back pain of more than 3 months duration with associated leg pain. Disc protrusion or herniation confirmed by CT or MRI was also required. Average duration of pain in the study population was 7.3 years and average age was 42 years old. This study enrolled 44 patients and 40 completed the study. Patients

were randomized in sequential order to their appropriate group. Outcome measures were the 10 centimeter visual analog pain scale (VAS) and a disability scale. The disability scale rated the subject's ability to perform their most affected activity on a 0 to 4 scale, with 4 being "can do without limitation". Treatments consisted of 30 minute sessions, five times per week for four weeks followed by weekly sessions for 4 weeks. The control group received TENS for 30 minutes daily for 20 days followed by weekly treatment for 4 weeks. Both groups were able to take anti-inflammatory and non-narcotic pain relievers as needed. Success of treatment was defined by 50% improvement in VAS and any improvement in disability. At the conclusion of the study 13 out of 19 (68.4%) of the treatment group showed improvement while 0 of 21 for the TENS group. At the six month follow-up 7 of the original 19 subjects (36.8%) in the treatment group showed sustained improvement.

#### *Study limitations*

This study utilized a small sample, did not provide power calculations and may have been underpowered. In a review performed by the Evidence Based Practice Group it was noted that the sequential randomization and statistical analysis used in this study severely limited the effectiveness of randomization [5]. Lack of blinding could have had a significant impact on the outcome as no placebo effect was noted. The control group actually suffered degradation of their symptoms at the conclusion of the study making statistically significant improvement easier to achieve. Although a six month follow-up was reported for the treatment group, it was not reported for the control group.

#### ***Decompression, reduction, and stabilization of the lumbar spine: a cost effective treatment for lumbosacral pain [6]***

A clinical trial comparing intermittent motorized traction to spinal decompression (DRS System®) was performed and reported in 1997. Twenty-seven men and twelve women were enrolled in the study and randomized to their appropriate group. Twenty-three had ruptured discs confirmed by MRI and 35 had sciatic radiation. Duration of symptoms was less than one year. Sixteen subjects had facet arthrosis with symptoms from one to 20 years. Subjects were blinded to treatment. In addition to the primary interventions, subjects received ice treatments, electric stimulation, and home use of TENS and three sessions with an exercise specialist. The authors state 86% of ruptured disc patients had "good or excellent" results using decompression therapy compared to 55% for traction subjects. Facet arthrosis patients had similar results with 75% improved with decompression therapy compared to 50% for traction.

#### *Study limitations*

Clearly the most obvious shortcoming of this study is the use of descriptive statistics to report outcomes. No calculations were reported to determine if the improvements in the treatment group were statistically significant compared to the control group. Additionally the methods to determine outcomes were not described. The authors merely stated that excellent = 90 to 100% improved, good = 50 to 89% improved and poor = < 50% improved. What constituted improvement was not discussed.

#### ***Vertebral axial decompression therapy for pain associated with herniated or degenerated discs or facet syndrome: an outcome study [7]***

A case series was performed that included 778 cases of low back pain patients that had disc dysfunction or facet syndrome confirmed by diagnostic imaging. Average duration of pain was 4 months or more in 83% of cases. Outcome measures were a 5 point pain scale and self assessment of mobility and ability to walk and sit. Patients were treated with the VAX-D unit and other concurrent, unspecified modalities and medications. Using a reduction in pain scores to 0 or 1 on a 5 point scale was considered a successful outcome. This study claimed a 71% success rate.

#### *Study limitations*

Although this is a large case series study, it cannot nor does it attempt to determine if the treatment is more effective than a placebo or other available treatments. Concurrent use of other modalities and



medicine confound the outcomes since it is unknown which treatment or combination of treatments may have been responsible for the positive response.

***Long-term effect analysis of IDD therapy in low back pain:  
a retrospective clinical pilot study [8]***

A retrospective case series of 33 patients was performed utilizing the Intervertebral Differential Dynamics (IDD) ® unit. The inclusion criteria were simply low back pain. The average age of participants was 73.4 years and the average number of treatment sessions completed was 19. The primary outcome measure was the numeric pain scale (0 representing no pain and 10 representing worst pain). Of the 24 patients completing the study the mean improvement in pain scores from first to last session was 4.46 ( $p < 0.01$ ) and at the 1 year follow-up 5.23 ( $p < 0.01$ ). Overall the authors claimed a 76% decrease in pain at the one year follow-up.

***Study limitations***

This is a smaller retrospective study. It is, as is the last study discussed, preliminary in nature. It cannot be used to determine treatment efficacy compared to another treatment or placebo.

***Efficacy of VAX-D on chronic low back pain:  
Study of dosage regimen [9]***

This study compared the effect of 10 treatment sessions to 20 treatment sessions on the VAX-D® decompression unit. One hundred and forty-two consecutive patients with chronic low back pain were treated and evaluated in this study. The visual analog pain scale and activities of daily living were used as outcome measure. Ninety-one patients received 10 sessions of treatment and the remainder received 20 sessions. Improvement of the 20 session group was statistically significant over the 10 treatment group ( $p < 0.0001$ ).

***Study limitations***

This study was designed with a single purpose, to measure dose response. It cannot address efficacy. The patients in this study were not randomized. Controls were minimal. The demographics of the individuals in the 10 treatment group were not compared to the individuals in the 20 treatment group; consequently it is difficult to establish whether the characteristics of the two groups were similar. These factors weaken the value of the study even for the purposes of dose response.

***Dermatomal somatosensory evoked potential demonstration of  
nerve root decompression after VAX-D therapy [10]***

This case series was performed with 7 subjects to measure the effect of VAX-D® therapy on dermatosomal somatosensory evoked potentials (DSSEP) [10]. All patients had had documented L5/S1 disc herniations. All patients showed improvement in DSSEP's in the ipsilateral or contralateral leg. Two patients showed worsening of DSSEP's in the symptomatic leg although both experienced improvements in symptomology. Overall the authors state that all subjects had at least a 50% improvement in radicular pain and back pain with 3 becoming asymptomatic.

***Study limitations***

The use of DSSEP as a valid outcome measure must be questioned when two of 7 subjects showed worsening of DSSEP's in the symptomatic leg although symptomology improved. Follow-up was not performed on these subjects so it cannot be determined if the effect of treatment was lasting or transient.

***Effects of vertebral axial decompression on intradiscal pressure [11]***

This study measured intradiscal pressure of subjects while undergoing decompression therapy on a VAX-D ® therapy unit. Five subjects were selected, aged between 23 and 41. A canula was inserted into the nucleus pulposa at the L4-5 level and connected to a pressure monitor using a pressure transducer. Distraction forces between 50 to 100 pounds

were used. The author reported data on three of the five subjects. This was due to procedural difficulties associated with the first two subjects. Results showed decompression therapy reduced intradiscal pressure from -25 to -160 mm Hg. The author concluded additional study is needed to establish the relationship of negative intradiscal pressures with clinical outcomes.

#### *Study limitations*

It is difficult to base the physiologic effect of a treatment on a study of 5 subjects, especially when the results are only provided on three.

#### ***The effects of vertebral axial decompression on sensory nerve dysfunction in patients with low back pain and radiculopathy [12]***

This study tested the sensory nerve function on subjects with low back pain and radiculopathy. Seventeen patients were selected. A total of 22 nerves were tested due to multiple level involvement. The testing instrument used to measure outcomes was the Current Perception Threshold (CPT) Neurometer. Results of the study showed 64% returned to normal function, 27% improved and 4.5 % had no improvement and 4.5% showed deterioration. Patient outcomes were not measured in this study.

#### *Study limitations*

The primary concern with this paper is the outcome measure utilized. Aetna has issued a policy bulletin stating that “the effectiveness and clinical applicability of CPT testing in diagnosing or managing a disease has not been established”[13]. Additionally an American Academy of Neurology report concludes malingering and other non-organic factors can influence outcomes and this type of testing should not be used as a sole outcome measure [14].

#### ***Sudden progression of lumbar disk protrusion during vertebral axial decompression traction therapy [15]***

This was a case report of a 46 year old male with a three month history of radicular pain consistent with a S1 radiculopathy. During his 5th session he suffered a severe exacerbation of his pain with marked enlargement of the disc protrusion requiring urgent microdiscectomy. Decompression therapy has been marketed as completely safe. This case study demonstrates adverse events can occur.

In reviewing the literature many concerns were raised as to the objectivity of the published research. For example many of the studies performed utilized the VAX-D® unit in which the patient position is prone [4,7,9-11]. Other manufacturers, although often referencing these studies in their advertising, have the patient in a supine position. This raises the question, is research valid for patient supine units when many of the studies were performed with the patient prone?

It appears that much of the research performed with decompression therapy is marketing oriented. Both of the Shealy studies were published in the “emerging technologies” section of the American Journal of Pain Management. This section is described by the journal editor as “either very small scale, uncontrolled, under-powered, and/or open-label. Studies under this heading should not be considered as standard, powered, blinded, controlled, cross-over designs”. Two commonly quoted articles in the advertising of spinal decompression are found in a non peer-reviewed journal [16] or in “informational” sections of an internet newsletter[17]. A letter to the editor of the Archives of Medical Rehabilitation, in reference to a spinal decompression advertisement previously printed, stated “it appears this is a paid advertisement intentionally created in such a manner to deceive readers into believing that it is a true news story that the editors decided to publish for the information of its readers...all these components attempt to create the impression that it is an objective piece of medical journalism” [18].

An author in the only RCT of decompression therapy has a financial interest in VAX-D technology in Australia [4].

These observations raise concern as to the objectivity of the research for spinal decompression.

### Limitations

Although the structure of this paper resembles a systematic review, it is not. It does not adhere to the strict requirements of a systematic review. The author did not address methods for each study or if the conclusions were accurate based on methods utilized. The individual studies were not graded according to an established grading system. The articles were simply reviewed and important shortcomings of the studies were reported. This paper was prepared by a single author and as a result might include bias although the author attempted to be fair in his assessment. This is a debate article. It is designed to initiate dialogue relating to the efficacy of non-surgical spinal decompression and as a result has methodological shortcomings.

### Summary

There is very limited evidence in the scientific literature to support the effectiveness of non-surgical spinal decompression therapy. This intervention has never been compared to exercise, spinal manipulation, standard medical care or other less expensive conservative treatment options which have an ample body of research demonstrating efficacy. Considering the cost-benefit relationship, many better researched and less expensive treatment options are available to the clinician.

### About the Author

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