

**The Profession and Practice of Chiropractic:
Common Myths,
Safety, and Efficacy.**

A review of the literature.

respectfully submitted by:

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Disclaimer

- This lecture and subsequent video and PowerPoint presentation was developed solely by Dr. Ronald Farabaugh for use in the Chiropractic Bootcamp seminar series, and for general distribution to the public. It was developed to rebut grossly inflammatory, misleading, and inaccurate information currently being distributed about the profession and practice of Chiropractic and the safety and efficacy of spinal manipulation.
- It represents the opinions of Dr. Ronald Farabaugh and is independent of any organization to which he may belong. A portion of the proceeds from the sale of this version of the video lecture will benefit public education and chiropractic education and research.

Dr. Farabaugh

2008

- **Practicing DC since 1982; 26 years**
- **Past President of the Ohio State Chiropractic Association**
- **Current Executive Committee of The Council on Chiropractic Guidelines and Practice Parameters (CCGPP)**
- **Certified Chiropractic Sports Physician (CCSP)-American Chiropractic Association. Council on Sports Injuries and Physical Fitness**
- **Certified Low Speed Rear Impact Collision Accident Reconstruction**
- **Co-developer of Chiropractic Bootcamp seminar series**
- **Appointed by Ohio Governor to assist in the development of Bureau of Workers Compensation managed care program. (1994)**

A Critic's Video Attack on the Chiropractic Profession

- My reaction.....**bewilderment**:.... because his description was not remotely similar to my real-life experience as a practicing DC for 26 years.
- Millions of documents available...yet he focused on approx. a dozen negative paragraphs and suggested chiropractic was a cult.
- How is that possible? What was his motivation?
- Appearance of legitimacy: University of Oklahoma
- Follow the money trail!
- Ending.....Surprise: Attorneys and lawsuits.
- **Paul Harvey.....The Rest of the Story....The Inconvenient Truth**

Bigotry and Discrimination

- **Medical bigotry and discrimination is as perverse and irresponsible as is bigotry and discrimination based on religious persuasion, race, or sexual orientation.**
- **Crafty, sick-minded and evil.....harms patients who then chose more invasive/dangerous medical care.**
- **Latest attack on our profession is reminiscent of the 1960s and 1970s AMA conspiracy: 1987 found guilty of conspiracy to contain and eliminate the Chiropractic profession**
- **AMA weapons: name calling, misinformation, political and financial influence.....same tactics still in use today. New players...same game.**
- **Good news: Contemporary medical physicians have grown past that period in history and routinely work with DCs for the good of our patients.**

Today's Topics

- Exploring the Myths.
 - Definition of Chiropractic
 - History of Chiropractic
 - Subluxation
 - Politics.....Milestones of Legitimacy
 - Education
- Safety of Spinal Manipulation-Cervical Spine
- Efficacy.....A review of the literature

Modern Definition of Chiropractic

- Myth: Is Chiropractic an “Advanced form of physical therapy?” ...Answer: no
- DCs are primary care physicians, PTs are not.
- 2008 Def: Chiropractic is a *profession* focused on “the treatment of human ailments without the use of prescriptive drugs or operative surgery.” Dr. James Winterstein, College President.

NOTE: Chiropractic is a profession, not a treatment.

History of Chiropractic

- Myth: “Chiropractic in 2008 is not much different than it was in 1895”
 - **Response: Movement towards “evidence-informed” practice by all physicians, including DCs.**
- History...Interesting story.....but not relevant in 2008.
- Remember: medical history: “the town doc”, blood letting, purges, and leeches.....also not relevant in 2008.
- Who cares what occurred 113 years ago in medicine or chiropractic?

Subluxation

Myth: “There is no such thing as a subluxation”

Reality: The entire discussion is not relevant in 2008.

Terms: There are many terms to describe what DCs have historically described as a “subluxation”.

- Osteopathic lesion
- Subluxation complex
- Functional lesion
- ***Spinal dysfunction....most common term***

Subluxation

- One of the most prolific researchers (Bogduk) on the topic suggests that the source of back pain is: the **disc and facet joints**.
- *Spinal manipulation has the greatest effect upon which tissues?*

*Answer: The **discs and facet joints**.*

Spinal manipulation is the most researched treatment for back and neck pain. Combined with exercise spinal manipulation is the most effective non-drug, non-surgical treatment available today for acute, subacute, and chronic low back and neck pain, thus the reason why nearly all nationally accepted guidelines suggest spinal manipulation as a preferred treatment option, not a treatment of last resort.

Subluxation...3 phases of history

1. 1895 DD Palmer....Coined the term “subluxation”.

2. Early Chiropractic....A clinical science

- a) Law: Homeostasis
- b) Theory: Nervous System
- c) Premise : Relationship b/w spine and NS
- d) Hypothesis : Nerve irritation....ill health

NOTE: No question exists over the validity of a, b, and c. “D”, like all hypotheses in science, is constantly being researched. Valuable information is generated nearly every day demonstrating the value of manipulation for conditions other than low back pain, neck pain, and headaches.

3. 2008.....Evidence based/informed physicians.....it’s all about “function”. DCs examine/diagnose, and either accept pt or refer.

DC use: Clinical predictive rule/patient selection criteria

Bottom line: “Subluxation”.....It’s just a word, not a movement or a religion.

Why is the spine so important?

Grey's Anatomy: Page 746 35th British Edition

- *“The human nervous system is, without question, the most complex, widely investigated, and least well understood system known to mankind. It’s structures and activities are inseparably interwoven with every aspect of our lives, physical, cultural and intellectual.”*
- **NOTE: Keep in mind however, that the “practice of chiropractic” is far more than the singular treatment or use of “spinal manipulation”.**

Subluxation = Spinal Dysfunction results in....

Most common conditions treated with spinal manipulation, in addition to other therapies/recommendations offered by chiropractic physicians, and supported by substantial research:

- Low back pain
- Neck pain
- Headaches

- LBP: Afflicts 76% of people annually and 85% of people in their lifetime and has total costs of \$84 to \$624 billion worldwide.

Spinal Dysfunction...Low Back Pain and spinal manipulation

- *JCSmith reports:* “....back pain management has been assessed by government agencies in the U.S, Canada, Great Britain, Sweden, Denmark, Australia, and New Zealand. All of these reports are highly positive with respect to ***spinal manipulation.***”
- “Today, we can argue that chiropractic care, at least for back pain, appears to have vaulted from last to first place as a treatment option.” Tony Rosner, PhD, formerly Director of Research at FCER
- RAND: DCs perform 94% of all manipulation

More Myths:

- **Myth: “Chiropractic is a bunch of voodoo and nonsense”**

Reality: It’s a senseless statement. Chiropractic is a profession, not a treatment. Chiropractic physicians are licensed in all 50 states.

- **Myth: Subluxation...”Chiropractors think they can cure everything from low back pain to HIV”**

Reality: Find me one, just one!

More Myths:

- Myth: “Chiropractic is a cult”Deserves no response.
 - Most MDs today have risen above that low level of medical bigotry.
- Myth: “Manipulations used by PTs and DOs are more gentle and controlled.”
 - Response: Quality of manipulation is dependant upon the quality of the education. Who would you rather consult for manipulation, a physician who spent 3-4 years studying manipulation, or a physician or therapist who attend one class or a weekend course?
- Realty: DCs perform 94% of all manipulation.

Education and Politics

- Myth: “Faculty members have marginal academic backgrounds, many have no college education at all”.
 - Reality: This statement is so ridiculous that it merits no response.
- Who has more political clout than the medical profession and drug industry?

Addressing the Skeptic: “I don’t believe in Chiropractic”

Response: Forget the word “Chiropractic”. Do you believe in the following?

- History
- Examination
- Diagnostic tests-X-ray, MRI, CT, Blood studies
- Diagnosis
- Patient Selection: treat or refer (Clinical predictive rule/pt selection)
- Treatment: PT...EMS/US, ice, heat, etc.
- Exercise
- Patient Education
- Nutrition
- Re-exam/re-assessment
- Documentation
- *Decisions are evidence-informed + clinical facts + patient values.*

If one believes in all the above, just exactly what is there not to “believe”
in when it comes to chiropractic?

NOTE: This is how you pick a good DC!!

Which available spine treatments are more researched and proven to be safe and effective compared to spinal manipulation? Answer: NONE.

- Passive therapy: Electric stim, US, ice/heat
- Active therapy: stretch, strength, core.
- Drugs: Non-steroid anti-inflammatory drug (NSAIDs)
- Drugs: Analgesics, muscle relaxants.
- Drugs: ESI
- Traction
- Decompression therapy
- Acupuncture
- Biofeedback
- Trigger point therapy

Research: Spinal Manipulation

Myth: “There is no research?” Hmmm??

Keyword: Spinal Manipulation

If one uses the word “spinal manipulation in these popular search engines, you’ll obtain reading for a lifetime! There is no shortage of research related to spinal manipulation and it’s effect on the human body.

PUBMED: 1406

Google: 375,000

MANTIS/FCER: 4192

***Support for chiropractic management of acute,
subacute and chronic spine pain.
Consider these nationally accepted guidelines***

- **AHCPR:** Agency for Health Care Policy and Research
- **NCQA:** National Council on Quality Assurance
- **American College of Physicians/American Pain Society:** Annals of Internal Medicine
- **ACOEM:** American College of Occupational and Environmental Medicine.
- **ODG:** Official Disability Guideline
- **Milliman and Roberston**
- **CCGPP:** Council on Chiropractic Guidelines and Practice Parameters. The most comprehensive review of the literature in the history of our country.
- **Bronfort.** Evidence-informed management of chronic low back pain with spinal manipulation and mobilization. Spine J. 2008 Jan-Feb;8(1):213-25.

Diagnosis and Treatment of Low Back Pain: A Joint Clinical Practice Guideline from
the **American College of Physicians**
and the **American Pain Society**

Chou, et al. Low Back Pain Guidelines Panel* 2 October 2007 | Volume 147 Issue 7 | Pages 478-491

Recommendation 7: For patients who do not improve with self-care options, clinicians should consider the addition of nonpharmacologic therapy with proven benefits—for **acute** low back pain, **spinal manipulation**; for **chronic or subacute** low back pain, intensive interdisciplinary rehabilitation, exercise therapy, acupuncture, massage therapy, **spinal manipulation**, yoga, cognitive-behavioral therapy, or progressive relaxation (weak recommendation, moderate-quality evidence).

Side note: Is it ever acceptable to recommend anything less than the most evidence-based treatment to a patient?

Answer: No. Conclusion: DCs and medical professionals of all types need to work closer together for the good of the patients we serve.

Next Topic:

The Safety of Spinal Manipulation

- During this part of the lecture we will briefly discuss the dangers of commonly prescribed drugs versus the safety of spinal manipulation.
- Source: "NCMIC: Current Concepts 2006"

Medical/hospital mistakes, drug reactions, and inappropriate surgeries

3rd Leading Cause of Death in USA

JAMA, July 26, 2000 Vol. 284. No. 4

- 225,000 deaths/yr = 3rd leading cause of death
- 3rd only to heart disease and cancer!!
- Estimates are for death only and do not include adverse effects associated with disability or discomfort.
- Estimates are low!

Cervical Transforaminal Epidural Steroid Injections More Dangerous Than We Think?

Scanlon, MD, et al. SPINE Volume 32, Number 11, pp 1249–1256 ©2007

- **Conclusions.** This study demonstrates a significant risk of serious neurologic injury after cervical TF-ESIs. A growing body of evidence supports an embolic mechanism, whereby inadvertent intra-arterial injection of particulate corticosteroid causes a distal infarct. Embolism to the distal basilar artery region can cause midbrain, pons, cerebellum, thalamus, temporal and occipital lobe infarctions.

The Basis for Recommending Repeating Epidural Steroid Injections for Radicular Low Back Pain: A Literature Review .

Novak MD, et al. Archives of Physical Medicine and Rehabilitation Volume 89, Issue 3, March 2008, Pages 543-552

Conclusions

- There does not appear to be any evidence to support the current common practice of a series of injections. Recommendations for further research are made, including a possible study design.

A Risk Assessment of Cervical Manipulation vs. NSAIDs for the Treatment of Neck Pain. Dabbs et al.

JMPTVol. 18, number 8 Oct. 1995; 18:530-6.

- *“The best evidence indicates that cervical manipulation for neck pain is much safer than the use of NSAIDs, by as much as a factor of several hundred times. There is no evidence that indicates NSAID use is any more effective than cervical manipulation for neck pain.”*
- Death rate for NSAID-associated GI problems at 0.04% per yr among OA patients receiving NSAIDs, or 3,200 deaths in the US per year.
- He (Brandt) also noted that there are several animal studies and human clinical studies that have actually implicated NSAIDs in the acceleration of joint destruction.

NSAIDs May Not Be Best Bet for Low Back Pain

News Author: Pauline Anderson, CME Author: Laurie Barclay, MD

January 25, 2008 Cochrane Database of Systematic Reviews

-literature on drug relief for low back pain (LBP) suggests that the popular nonsteroidal anti-inflammatory drugs (NSAIDs) are no more effective than other drugs such as acetaminophen, narcotic analgesics, and muscle relaxants.
-also found that NSAIDs had more adverse effects than placebo and acetaminophen but fewer effects than muscle relaxants and narcotic analgesics.
- In addition, evidence from the review suggests that no one NSAID is clearly more effective than another.
- “For acute LBP, evidence is conflicting that NSAIDs are more effective than simple analgesics or bed rest, and moderate NSAIDs are not more effective than other drugs, physiotherapy, or spinal manipulation.”

“Hospital foul-ups found in kids’ care:
Mistake rate much higher than thought, new analysis shows.”

AP Tuesday, April 8, 2008

“Medicine mix-ups, accidental overdoses and bad drug reactions harm roughly one out of 15 hospitalized children, according to the first scientific test of a new detection method.”

NOTE: Compare the above stat to the reality that serious adverse events occur in less than 1:2,000,000 to 1:5,000,000 chiropractic manipulations.

“Critics who live in glass houses.....”

How does one decide?

- Bottom Line: Despite the negative evidence against NSAIDs and ESI, they do serve a purpose in certain patients.
- Patient selection critical. Conservative.....Surgery.
- Drugs?.....ask an medical physician/pharmacist.
- Spinal Manipulation?.....ask a chiropractic physician
- Patient.....become an active consumer.

Chiropractic Spinal Manipulation

How Safe is Manipulation Compared to other
Common Forms of Cervical Spine Treatment?

***The Inconvenient Truth That Certain
Chiropractic Critics Do Not Want You To
Know!***

Source:

**“Current Concepts
in Spinal Manipulation and Cervical Arterial Incidents”**

© 2006

- 2001 Terret. Misuse of the Literature by Medical Authors (page 105).
- Was an injury caused by a chiropractic physician?
- Answer: Actual injury caused by medical practitioners, medical specialists, osteopaths, physiotherapists, naturopaths, the patient, a kung fu practitioner, a blind masseur, a wife, and a barber in India

Death and Morbidity Rates of Common Medical Treatments

- “Chiropractic procedures are the safest procedures in the provision of human health care services, when compared to know mortality and morbidity rates in medical practice.” (Current Concepts page 72)
- USA: 1: 2,000,000 neck manipulations
- Canada: 1:3,846,153 neck manipulations
- Other sources: as low as 1:5,000,000

Is there a causal relationship between spinal manipulative therapy (SMT) and stroke?

- “The best scientific evidence available has shown no causative relationship between appropriately applied spinal manipulation and stroke events.
- The incidence of stroke in the population as a whole is no different (2 per 100,000 persons annually) than among those who receive manipulation treatment of the neck.” (Current Concepts page 62)

Death and Morbidity Rates of Common Medical Treatments (cont'd)

- “In the 65-year period 1934 to 1999, there are only 37 cases of death known to have occurred in the world, from all types of SMT practitioners, with only 19 from that 65-year period being related to chiropractors or chiropractic manipulation (and some may have already had a stroke in evolution, and therefore had an identical outcome even if they had not consulted a DC.”

(Current Concepts page 72)

- **NOTE: compare that to the reality the 16,500 people die annually from NSAID related complications.**

(see BMJ and JAMA 2000)

Possible Risk Factors All Physicians Need to Know

Despite the exceptionally low risk, every physician should be aware of the following risk factors:

1. Dizziness, unsteadiness, giddiness, and vertigo
2. Sudden severe pain in the side of the head and/or neck, ***which is different from any pain the patient has had before***
3. Age <45
4. Migraine
5. Connective Tissue disease (Autosomal dominant polycystic kidney disease, Ehlers-Danlos Type IV, Marfan Syndrome, Fibromuscular Dystrophy)
6. Recent infection, particularly upper respiratory.

(Current Concepts page 44)

Again, despite the exceptionally low risk, every physician should be aware of the following symptoms in addition to the risk factors mentioned previously:

- **headache, dizziness, low of consciousness, nausea, vomiting, hearing/visual/sensory disturbances, cramps, weakness, and/or ataxia without residual sequelae to suggest stroke.** (Current Concepts)

Dangers of NSAID use

- “The author has been unable to find any evidence-based clinical research to indicate beneficial effects of non-steroidal anti-inflammatory drugs (NSAIDs) in the treatment of cervical-spine pain syndromes; and yet NSAIDs are the most common prescribed first-line treatment by medical practitioners (about 5% of all prescriptions)” . (Current Concepts page 74)

Dangers of NSAID use (cont'd)

- Brandt noted that not only is there evidence that NSAIDs favorably influence the progression of joint breakdown in osteoarthritis, he also noted that there are several animal studies and human clinical studies that have implicated NSAIDs in the acceleration of joint destruction. NSAIDs are not without potential serious risks (GI hemorrhage, renal dysfunction, hypersensitivity reactions, liver damage, central nervous system damage and anemia). (Current Concepts page 74)

Dangers of NSAID use (cont'd)

- Dabbs and Lauretti: “...it is seen that the risk of serious injury with NSAIDs use is 400 times greater than SMT (spinal manipulative therapy); and the risk of death with NSAID use is 160 times greater.”
- “The increased risk of death resulting from NSAID use is 1,500 times greater than the risk of tetraplegia following cervical SMT.”

(Current Concepts page 75)

Conclusion Regarding Safety of Spinal Manipulation

- “On analysis, SMT as delivered by chiropractors is one of the most conservative, least invasive and safest of procedures in the provision of health care services.”
- “The risks of SMT pale when compared to known medical risks. Chiropractors, by their training and skill in SMT and special emphasis on the spine, are the best positioned to deliver this mode of health care to the public.”

(Current Concepts page 76)

Risk of Vertebrobasilar Stroke and Chiropractic Care
Results of a Population-Based Case-Control and Case-Crossover Study.
Cassidy, DC, PhD, et al. Spine 2008;33:S176–S183

- **Conclusion.** VBA stroke is a very rare event in the population. The increased risks of VBA stroke associated with chiropractic and PCP visits is likely due to patients with headache and neck pain from VBA dissection seeking care before their stroke. We found no evidence of excess risk of VBA stroke associated chiropractic care compared to primary care.
- *NOTE: There is a reason DCs pay only about \$150/month in malpractice insurance. Chiropractic care is very safe!*

“Efficacy of Spinal Manipulation”

Hundreds and hundreds of studies,
thus beyond the scope of this paper.

Let's examine just a few....

Why manipulate a dysfunctional/fixated joint?

Why is **spine integrity** so important?

Sources:

Cramer, et al. *Degenerative Changes Following Spinal Fixation in a Small Animal Model*. JMPT 2004;27(3): 141-154,

Cramer et al. *Zygapophyseal Joint Changes Following Induced Segmental Hypomobility in the Rat*. 2004 Annual Meeting of the Federation of Associations and Societies of Experimental Biology 68:2, Washington, D.C., 4/17-21/2004

Why manipulate a dysfunctional/fixated joint?

(cont'd)

Design: 3 lumbar vertebrae fixed in rat for 1-8 wks.

Subgroup had fixations removed for 1,2,4,8, 12 wks.

Primary Outcome Measures:

- (1) Degenerative changes in the vertebral bodies and IVD,
- (2) Z joint osteophyte formation,
- (3) Z joint articular surface degeneration.

Why manipulate a dysfunctional/fixated joint?

(cont'd)

Results: The longer the fixation, the greater numbers and severities of osteophytes were evident. Unlinking the spinal attachment units allowed the osteophytes parameters to return to control levels.

Once the fixations were achieved for 8 weeks, there were no reversals of their effects achieved by unlinking for up to 17 weeks.

Why manipulate a dysfunctional/fixated joint?

(cont'd)

Results: Z joints began to show irreversible damage with as little as 1 week of immobilization.

In the animal model, therefore, the concept of subluxation as articulated by the chiropractic community has taken on a noteworthy number of demonstrable attributes. It is neither a figure of speech nor a figment of one's imagination.

Treatment of neck pain: noninvasive interventions: results of the Bone and Joint Decade 2000-2010 Task Force on **Neck Pain** and Its Associated Disorders.
Hurwitz, Haldeman et al. Bone and Joint Decade 2000-2010 Task Force on Neck Pain and Its Associated Disorders.

Spine. 2008 Feb 15;33(4 Suppl):S123-52

- **CONCLUSION:** Our best evidence synthesis suggests that therapies involving manual therapy and exercise are more effective than alternative strategies for patients with neck pain; this was also true of therapies which include educational interventions addressing self-efficacy.
- ***NOTE: It's all about function!***

Trunk exercise combined with **spinal manipulative** or NSAID therapy for **chronic low back pain**: a randomized, observer-blinded clinical trial.

Bronfort. DC et al. JMPT 1996; 19(9): 570-582

- This was a randomized controlled study with a one year follow-up in 174 chronic low back pain patients (age 20-60) that compared the efficacy of five weeks of: (1) spinal manipulation (SM) with trunk strengthening exercises (TSE); (2) SM combined with trunk stretching exercises; and (3) NSAIDs with TSE all followed by 6 weeks of supervised exercise alone.

Trunk exercise combined with **spinal manipulative** or NSAID therapy for **chronic low back pain**: a randomized, observer-blinded clinical trial.

Bronfort. DC et al. JMPT 1996; 19(9): 570-582 (cont'd)

- Results: Outcomes at 5 and 11 weeks revealed no significant group differences. Continuance of exercise during the follow-up year, regardless of the type of treatment, was associated with a better outcome.
- Conclusion: All three treatment regimens were associated with similar and clinically important improvement over time and the treatment was considered superior to the expected natural history of long-standing chronic low back pain. For the management of chronic low back pain, trunk exercise in combination with spinal manipulation or NSAIDs seems beneficial and worthwhile.

Resolution of **Cervical Radiculopathy** in a Woman After Chiropractic Manipulation

Whalen, Journal of Chiropractic Medicine 2008

Conclusion:

This case describes the clinical presentation and course of a patient with multilevel large herniated disks and associated radiculopathy who was treated with HVLA manipulation and other conservative approaches and appeared to have good outcomes.

Chiropractic Care Staves Off Pregnancy-Related Back Pain

Journal of Midwifery and Women's Health. Jan 2006;51:e7-10

- University of Bridgeport College of Chiropractic
- 17 cases of pregnant women with LBP
- Pain scale: 5.9 reduced to 1.5
- Average time to clinically important pain relief: 4.5 days.
- Average # of visits: 1.8
- 16 of 17 improved.
- No adverse effects.
- Conclusion: DC tx was safe and effective.

“Chiropractic Treatment of **Chronic Whiplash.**”

Woodward, Cook, et al. (1996). Injury 27 (9): 643-5

- *“The accumulated literature suggests that 43% of patients will suffer long-term symptoms following ‘whiplash’ injury. If patients are still symptomatic after 3 months then there is almost a 90% chance that they will remain so. No conventional treatment has proven to be effective in these established chronic cases.”*
- *“The results of this retrospective study would suggest that benefits can occur in over 90% of patients undergoing chiropractic treatment for chronic ‘whiplash’ injury.”*
- Following the chiropractic treatment, 93% of the patients had improved.

A Symptomatic Classification of **Whiplash** Injury and the Implications for Treatment.

Khan, Cook, Gargan, and Bannister.

The Journal of Orthopaedic Medicine 21[1]1999.

- Objective: To determine which patients with chronic whiplash will benefit from chiropractic treatment.
- 93 patients, 68 female.
- Conclusion: Whiplash injuries are common. **Chiropractic is the only proven effective treatment in chronic cases.** Our study enables patients to be classified at initial assessment in order to target those patients who will benefit from such treatment.
- 57% make full recovery.
- Resolution of symptoms will have occurred within 2 years of injury.
- 8% will remain disabled by their symptoms.

Cox et al. Distraction Manipulation Reduction of an L5-S1 Disk Herniation .

JMPT Volume 16, Number 5, June, 1993

Conclusions: Chiropractic distraction manipulation is an effective treatment of lumbar disk herniation, if the chiropractor is observant during its administration for patient tolerance to manipulation under distraction and any signs of neurological deficit demanding other types of care.

Cassidy et al. Side Posture Manipulation for Lumbar Intervertebral **Disk
Herniation.**

JMPT. Volume 16, Number 2, February, 1993

Conclusions: The treatment of lumbar intervertebral disk herniation by side posture manipulation is both safe and effective.

BenEliyahou et al. Magnetic Resonance Imaging and Clinical Follow-up: Study of 27 Patients Receiving Chiropractic Care for Cervical and Lumbar Disc Herniations.

JMPT. Volume 19, Number 9, November/December, 1996

Results: Clinically, 80% of the patients studied had a good clinical outcome with post-care visual analog scores under 2 and resolution of abnormal clinical examination findings. Anatomically, after repeat MRI scans, 63% of the patients studied revealed a reduced size or completely resorbed disc herniation. There was a statistically significant association ($p, .005$) between the clinical and MRI follow-up results. Seventy-eight percent of the patients were able to return to work in their pre-disability occupations.

Conclusion: This prospective case series suggest that chiropractic care may be a safe and helpful modality for the treatment of cervical and lumbar disc herniations. A random, controlled, clinical trial is called for to further substantiate the role of chiropractic care for the non-operative clinical management of intervertebral disc herniation.

Chiropractic manipulation in the treatment of acute back pain and sciatica with disc protrusion: a randomized double-blinded clinical trial of active and simulated spinal manipulation.

Spine Journal 2006. Published online 2/3/06. Santilli, et al.

- 102 adults seen in 2 medical centers in Rome.
- Two groups: active and simulated.
- Active: max. of 20 tx in 30 days.
- CMT: Examining the ROM, soft tissue manipulation, followed by “brisk rotational thrusting away from the greatest restriction.”
- Assessed at 15, 30, 45, 90, and 180 days.
- Results: 55% of active group were free of radiating pain, compared to only 20% of simulated pts.
- Less local pain, pain, and less NSAIDs.

Atlas vertebra realignment and achievement of arterial pressure goal in **hypertensive patients**: a pilot study

Bakris G, et al. Journal of Human Hypertension. 2007; Vol. 21, pp. 347-352.

<http://www.nature.com/jhh/journal/v21/n5/abs/1002133a.html>

- **50 patients: 25 received upper cervical manipulation, 25 sham**
- **1 manipulation**
- **Reduced blood pressure nearly 18 points**
- **Results still present at 8 week interval.**

- **Conclusion:**
We conclude that restoration of Atlas alignment is associated with marked and sustained reductions in BP similar to the use of two-drug combination therapy.

NOTE: Reported by Dr. Timothy Johnson, national TV, just last week (April 2008)

Manual Therapy for patients with **stable angina pectoris**: a nonrandomized open prospective trial.

JMPT. Nov. 2005;28(11):654-661. Christensen, et al.

- 275 pts.....stable angina
- 50 dx w/ cervicothoracic angina (CTA), the treatment group.
- Remaining pts. in control group.
- CTA....8 tx of manual therapy/HVLA in 4 wks, and trigger points/massage.
- Result: 70% of CTA improved.
- 96% thought DC tx was beneficial.
- Quality-of-life questionnaires provided the most revealing evidence of the benefits of chiropractic care.

The Short-term Effect of Spinal Manipulation in the Treatment of **Infantile Colic: A randomized Controlled Clinical Trial with a Blinded Observer.**

Wiberg et al. JMPT Volume 22, Number 8, October 1999.

- **Results:** By trial days 4 to 7, hours of crying were reduced by 1 hour in the dimethicone group compared with 2.4 hours in the manipulation group ($P=.04$). On days 8 through 11, crying was reduced by 1 hour for the dimethicone group, whereas crying in the manipulation group was reduced by 2.7 hours ($P=.004$). From trial day 5 onward the manipulation group did significantly better than the dimethicone group.
- **Conclusion:** Spinal manipulation is effective in relieving infantile colic.

Chiropractic Management of Primary **Nocturnal Enuresis**.

Reed et al. JMPT, Volume 17, Number 9, November/December, 1994

Results: The post-treatment mean wet night frequency of 7.6 nights/2 wk for the treatment group was significantly less than its baseline mean wet night frequency of 9.1 nights/2 wk ($p = 0.05$). For the control group, there was practically no change (12.1 to 12.2 nights/2 wk) in the mean wet night frequency from the baseline to the post-treatment.....

Twenty-five percent of the treatment-group children had 50% or more reduction in the wet night frequency from baseline to post-treatment while none among the control group had such reduction.

Conclusion: Results of the present study strongly suggest the effectiveness of chiropractic treatment for primary nocturnal enuresis.

Department of Defense Demonstration Projects

Chiropractic in the **Military**

- The Minority Report estimated (using findings and data from the CHCDP and Medicare patient data) that the inclusion of chiropractic care in the MHS would result in significant net savings (\$25.8 million). The areas of savings/cost offsets were noted as:
 - -saved costs for PT care of back pain
 - -saved costs with reduction of inpatient events with DC care.
 - -estimated value of 199,000 (central value) duty/labor days saved with DC care.
 - -estimated savings from eliminated health services of DME, Home Health, Hospice, etc. with chiropractic care.
 - -estimated additional savings of PT substitution due to reduced ER and PCP visits and other cost savings.
 - *******Approximately \$25.8 million net savings.*******

Effective Management of Spinal Pain in 200 Patients Evaluated for **Manipulation Under Anesthesia.**

The Journal of Neurological and Orthopaedic Medicine and Surgery. Volume 17, No 1, 1998.

"In completing this study, **the authors found that a multidisciplinary approach to evaluation and treatment offers patient benefits above and beyond that which can be obtained through the individual providers working alone.**

It is our intention to proceed with studies of a more specific design as this present work has demonstrated positive results and no complications."

Finding a good Chiropractic Physician

- Ask friends or co-workers for a referral
- Call your state Chiropractic Board of Examiners to verify the doctor's licensure and standing in the state. Easiest to check online.
- Check the National Practitioners Data Bank

Finding a good Chiropractic Physician

Interview the Chiropractic Physician:

- Ask how long has the doctor been in practice?
- What post graduate studies has the doctor pursued?
- Is the doctor certified in any specialty?
- Is the office busy?
- Is the office clean and is the staff friendly?

Finding a good Chiropractic Physician

If so, assess his/her assessment of you:

- Was the examination thorough and did it include a detailed history, in depth examination, additional imaging if necessary, an explanation of the findings?
- Was the recommendation/clinical decision logical and clearly explained?
- Are you comfortable with the doctor's approach?
- Do you understand the objectives of the treatment recommendation and are they based on science that you understand and trust?

Finding a good Chiropractic Physician

- Does the DC consider other important factors in addition to spinal manipulation? Example: nutrition, conditioning, ergonomics, past history, drug interactions, goals of care, etc.?
- Does the DC use evidence-based treatment such as spinal manipulation, exercise, nutrition, lifestyle management, etc.?
- Most of all, is your doctor attentive to your condition and are you noticing an improvement in the objectives you set out to accomplish?

Thank you for reviewing the information in this presentation. While this lecture was produced and financed solely by Dr. Ronald Farabaugh, a portion of the proceeds of sale of this version of the video/PowerPoint lecture will assist in public education and chiropractic education and research.

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