



## Chiropractic Safety

### The Safety of Chiropractic

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#### Controversy. The Media feeds on it.

Millions of patients love their chiropractor and appreciate our unique and safe approach to recovery from pain. Significant research suggests that chiropractic is the safest approach available for relief from neck pain, back pain, headaches and other “musculo-skeletal” complaints. Lets review that research, and discuss how modern medicine has contributed to the Myth that chiropractic care is dangerous.

#### First, a short review of history

In the early 1960's, the American Medical Association (AMA) decided to try to contain and eliminate Chiropractic as a profession. [ 1 ] The AMA's purpose was to prevent medical physicians from referring patients to Chiropractors, as well as preventing them from accepting referrals from Chiropractors; to prevent Chiropractors from obtaining access to hospital diagnostic and radiology services; to prevent medical physicians from teaching at chiropractic colleges, or engaging in any joint research; and, to stifle any other form of cooperation between the two professions. The AMA also told its membership, medical students, insurance companies, and the general public that Chiropractic was an “unscientific cult”.

In 1976, five Chiropractors filed a lawsuit against the AMA (and other named entities) for violation of the Sherman Anti-trust Laws. After 15 years of litigation, the U.S. Court of Appeals stated that the AMA intended to “destroy a competitor,” and that there was evidence “showing that the AMA was motivated by economic concerns”. The court found that the AMA had concealed evidence showing it's guilt, and was caught “doctoring” documents. The AMA was also “guilty of systematic, long term wrong doing and has not acknowledged its lawlessness”. [ 1 ]

Following the Court enforced reversal of AMA's policy, tiny splinter groups formed, with the intention of labeling chiropractic as a quackish cult. Their methods mimicked the earlier AMA suppression tactics: Create doubt about the quality of chiropractic education, and mislead the public into believing that chiropractic claims ALL disease is caused by subluxations. Although these groups hide behind the noble claim that they wish to protect the public from unscientific practices, their true motives are transparent. Their sole intention is to suggest that only allopathic medicine is well supported by scientific research. **However, that is just not true!**

In an editorial in the highly esteemed *British Medical Journal*, titled **Where is the Wisdom? The Poverty of Medical Evidence**, BMJ's editor Dr. Richard Smith recounts a lecture he attended with renowned health policy consultant Dr. David Eddy. Eddy found, after doing significant research, that **only about 13% of medical interventions are supported by, solid scientific evidence** and that **only 1% of the articles in medical journals are scientifically sound. Why is that?** Because most of those articles quote from other articles which make unsupported and unfounded claims.

#### The Increasing Popularity of Alternative Medicine

After publication of David M. Eisenberg's 1993 *New England Journal of Medicine* article (*Unconventional Medicine in the United States*), various factions of modern medicine became increasingly anxious and aggressive in their accusations that alternative approaches to medical healthcare were not supported by research. [ 2 ] This same group was NOT forthcoming in mentioning the small fraction of established medical practices that have ever met these same stringent

requirements. They certainly never mention the low level of success which medicine delivers for the same health complaints that chiropractic is so famous for.

### The High Risks of the Medical Approach

Dr. Lucian Leape, researcher at the Harvard Medical School of Public Health, also states that only 13% of medical procedures have ever been tested for appropriateness by randomized trials. He noted that adverse events occurred in 3.7 percent of all hospitalizations. **Worse yet, 13.6 percent of those adverse events led to death!** [ 3 ]. He is quoted as saying, **“Medicine is now a high risk industry, like aviation. But, the chance of dying in an aviation accident is one in 2 million, while the risk of dying from a medical accident is one in 200!”** [ 4 ]

The most comprehensive review of “adverse events” (also referred to as “iatrogenic injury”) caused by modern medicine is the article *Death by Medicine*, written by Gary Null, Ph.D.; Carolyn Dean MD, ND; Martin Feldman, MD; Debora Rasio, MD; and Dorothy Smith, PhD. [ 5 ].

This fully referenced report reveals that:

- **2.2 million** people experience in-hospital, adverse reactions to prescribed drugs per year.
- **20 million** unnecessary antibiotics are prescribed annually for viral infections
- **7.5 million** unnecessary medical and surgical procedures are performed annually, and
- **8.9 million** people are exposed to unnecessary hospitalization every year!

The most stunning statistic, however, is that **the total number of deaths caused by conventional medicine is an astounding 783,936 per year!**

That is a mind-boggling 2147 people killed daily!

**That's 7 jumbo jet plane crashes, each and every day.**

**That's a 9-11 incident occurring every other day...FOREVER. God help us all.**

### Now, Lets Discuss the Safety of Chiropractic

Canada has a government-run national health care system. As occurred with Medicare in this country, there had been such pressure on the Canadian government to include chiropractic as a covered benefit, that the Ontario Ministry of Health hired a renowned health care economist to make a recommendation. The first “**Manga Report**” [ 6 ] was published in 1993.

This comprehensive study reviewed all the published literature on low back pain and made some astounding suggestions. In a nutshell, it concluded that: **chiropractic should be the treatment of choice for low back pain – excluding traditional medical care altogether!**

The specific Findings of the report were:

- There is an overwhelming body of evidence indicating that **chiropractic management of low-back pain is more cost-effective than medical management**
- **Many medical therapies are of questionable validity or are clearly inadequate**

There is no clinical or case-control study that demonstrates or even implies that chiropractic spinal manipulation is unsafe in the treatment of low-back pain. Some medical treatments are equally safe, but others are unsafe and generate **iatrogenic complications** for LBP patients.

- **Chiropractic is more cost-effective. There would be highly significant cost savings if more management of LBP was transferred from medical physicians to chiropractors.**
- There is good empirical evidence that patients are very satisfied with chiropractic management of LBP and considerably less satisfied with physician management

#### The specific Recommendations were:

- Chiropractic services should be fully insured under the Ontario Health Insurance Plan
- Chiropractic services should be fully integrated into the health care system. Because of the high incidence and cost of LBP, hospitals, managed health care groups, community health centers, comprehensive health organizations, and health service organizations and long-term care facilities should employ chiropractors on a full-time and/or part-time basis
- **A good case could be made for placing chiropractic as the gatekeepers for all musculoskeletal complaints that presented to hospitals.**

#### More Bad News For Medical Patients

A series of articles reporting on the lack of medical training in musculoskeletal disorders was published between 1998 and 2002 by Kevin B. Freedman, MD [ 7 ], [ 8 ]. It seems that the department chairs of several hospital-based orthopedic residency programs designed a basic examination on musculoskeletal competency and gave it to their residents. **82 per cent of medical school graduates failed the examination.** Four years later the test was simplified and, **once again, 78% of the examinees failed to demonstrate basic competency in musculoskeletal medicine.** **When this test was given to final quarter chiropractic students 70% of them passed the exact same exam!** [ 9 ]

The differences between these 2 student groups should be noted. The medical students had already graduated from medical school (as MDs) and had completed their rotations through various hospital departments. Finally, they had been accepted into an orthopedic residency program...the pinnacle of medical musculoskeletal specialists. The chiropractic students however were still just students. **80% medical failure versus 70% chiropractic success. Quite astonishing!**

#### Review of Specific Safety Studies

##### A. The Safety of Cervical Adjusting

**No one pays closer attention to injury statistics than Malpractice Insurance carriers.**

Scott Haldeman, MD, DC reviewed malpractice claims records for a 10-year period between 1988 and 1997. In reviewing the outcomes following the application of 134.5 million cervical manipulations (commonly referred to as the chiropractic adjustment), the records indicated that there were 23 reported cases of stroke or vertebral artery dissection (VAD). [ 10 ] Of this group, 10 of the patients had the complicating factors of high blood pressure, use of oral contraceptives, or a history of smoking, all of which are associated with vascular disease. The actual incidence of stroke or VAD following cervical manipulation was found to be one per 5.85 million cervical adjustments. **That means that the average chiropractor could work for 1430 years (or practice 48 full chiropractic**

careers!) before they might be involved with this type of litigation.

Other reports listing a higher frequency of adverse events have been compromised by the tendency of those authors to inappropriately list the practitioner as a chiropractor, even when it turned out that the injury was caused by a medical doctor, a physical therapist or a hairdresser! [ 11 ], [ 12 ]

Rather than raising concerns about the safety of chiropractic, these statistics emphasize that spinal manipulation, in the hands of unskilled practitioners, is dangerous, and the practice must be closely regulated. [ 13 ]

The **World Health Organization** recently released a comprehensive set of guidelines that clearly states that **chiropractic is a separate profession, rather than a set of techniques that can be learned in short courses by other health professionals**. They also make it clear that medical doctors and other health professionals, in countries where the practice of chiropractic is not regulated by law, should undergo extensive training to re-qualify as chiropractors before claiming to offer chiropractic services. In some countries there have been recent efforts by medical groups to provide short courses of approximately 200 hours in chiropractic technique. **WHO's guidelines indicate that a medical graduate should require an additional minimum of 1800 class hours, including 1000 hours of supervised clinical training, before claiming to offer chiropractic services.** [ 14 ]

## B. The Safety of Low Back Adjusting

Lower back injury alleged to have occurred following spinal manipulative therapy has been reported in patients with pre-existing disc herniation or prolapse. While it is suggested that the forces required to cause a disruption of the annular fibers of the healthy intervertebral disc well exceed that of a rotational manipulative thrust, some disc herniation/protrusion may certainly be aggravated by an inappropriately applied manipulative maneuver, as it may be by other simple activities of daily living such as bending, sneezing, or lifting. The most frequently described severe complication is compression of the cauda equina by massive midline nuclear herniation at the level of the 3rd, 4th or 5th intervertebral disc.

Of the 30 cauda equina complications associated with manipulation reported in the French, German and English literature over an 80 year period, only 8 were allegedly related to chiropractic treatment. [ 15 ]

## The Risks of Medical Procedures Aimed at Relief of Similar Symptoms

### A. Non Steroidal Anti-Inflammatories (NSAIDs)

One group of patients who rely on NSAIDs for pain relief are those suffering from rheumatoid arthritis. In 1998, Dr. Singh of the Stanford University of Medicine reviewed the records of 11,000 arthritis patients at 8 participating institutions. He extrapolated that **approximately 107,000 patients are hospitalized annually for nonsteroidal anti-inflammatory drug (NSAID)-related gastrointestinal (GI) complications (internal bleeding) and at least 16,500 NSAID-related deaths occur each year among arthritis patients alone**. The figures for all NSAID users would be overwhelming, yet **the scope of this problem is generally under-reported**. [ 16 ]

Another article titled “36 Percent of Acute Liver Failures Are Linked to Acetaminophen” suggests that other organ systems are also compromised by the use of over-the-counter pain medications. [ 17 ]

Lauretti's review of the literature found that **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**. [ 27 ]

### B. Spinal Surgery

First, let's review some history. In 1974, the Congressional Committee on Interstate and Foreign Commerce held hearings on unnecessary surgery. Their findings from the First Surgical Second Opinion Program found that **17.6% of recommendations for surgery were not confirmed**. The House Subcommittee on Oversight and Investigations extrapolated these figures to estimate that, on a nationwide basis, there were **2.4 million unnecessary surgeries performed annually resulting in 11,900 deaths at an annual cost of \$3.9 billion**. [ 18 ]

With the total number of lower back surgeries having been estimated in 1995 to exceed 250,000 in the U.S. at a hospital cost of \$11,000 per patient. [ 19 ] This would mean that the total number of unnecessary back surgeries each year in the U.S. could approach 44,000, costing as much as \$484 million. [ 20 ]

**So, the biggest risk of spinal surgery is that it may not be necessary.**

a **2.1%** chance of a **serious adverse drug reaction**. [ 21 ]

- a **5-6%** chance of acquiring a **nosocomial infection** [ 22 ]
- a **4-36%** chance of having an **iatrogenic injury** (medical error or adverse drug reactions). [ 23 ]
- a **17%** chance of a **procedure error**. [ 24 ]
- **As few as 3%, and no more than 20% of iatrogenic injuries are ever reported! Yipes!** [ 5 ]

**That takes all the fun out of being a statistic, doesn't it?**

**This September 2006 article from the *Journal of the American Academy of Orthopedic Surgeons* says it all:**

**“Failed back surgery syndrome is a common problem with enormous costs to patients, insurers, and society. The etiology of failed back surgery can be poor patient selection, incorrect diagnosis, suboptimal selection of surgery, poor technique, failure to achieve surgical goals, and/or recurrent pathology.”** [ 25 ]

**That my friends is right from the horse's mouth.**

**The most recent controversy is from the *New York Times*:**

**“Spinal-fusion surgery is one of the most lucrative areas of medicine. An estimated half-million Americans had the operation this year, generating billions of dollars for hospitals and doctors.**

**But there have been serious questions about how much the surgery actually helps patients with back pain and whether surgeons' generous fees might motivate them to overuse the procedure. Those concerns are now heightened by a growing trend among some surgeons to profit in yet another way — by investing in companies that make screws and other hardware they install.”** [ 26 ]

Now, added to concerns about medicine's poor musculoskeletal training and dangerous statistics, we have to wonder if the orthopedist might be motivated to install 6 of those \$1000 screws in your spine because they are a stockholder in a lucrative medical device manufacturer.

The sanest and safest approach is to use conservative approaches like chiropractic care **first**. You can always resort to drugs or surgical approaches as a last-ditch resort, but the statistics suggest that most low-back and neck pain can be successfully managed with lower costs and higher patient satisfaction by Doctors of Chiropractic.

You may want to explore **research supporting chiropractic care for a wide variety of conditions** in our Research section. There is also a significant body of work demonstrating the vastly superior **Cost-Effectiveness of Chiropractic**, as well as contrasting **Patient Satisfaction With Chiropractic** with standard Medical Care for the same conditions.

#### REFERENCES:

- [1] The Chiropractic Antitrust Suit ~ Wilk, et al vs. the AMA, et al  
The Chiropractic Resource Archives  
<http://www.chiro.org/Wilk/>
- [2] Unconventional Medicine in the United States: Prevalence, Costs, and Patterns of Use  
New England Journal of Medicine 1993 (Jan 28); 328 (4): 246-252  
[http://www.chiro.org/alt\\_med\\_abstracts/ABSTRACTS/Unconventional\\_Medicine.shtml](http://www.chiro.org/alt_med_abstracts/ABSTRACTS/Unconventional_Medicine.shtml)
- [3] Incidence of Adverse Events and Negligence in Hospitalized Patients  
Results of the Harvard Medical Practice Study I  
New England Journal of Medicine 1991 (Feb 7); 324 (6): 370-376
- [4] The Iatrogenic Injury Page  
[http://www.chiro.org/LINKS/Iatrogenic\\_Page.shtml](http://www.chiro.org/LINKS/Iatrogenic_Page.shtml)
- [5] Death by Medicine  
Life Extension Foundation  
[http://www.chiro.org/LINKS/FULL/Death\\_By\\_Medicine.html](http://www.chiro.org/LINKS/FULL/Death_By_Medicine.html)
- [6] A Study to Examine the Effectiveness and Cost-Effectiveness of Chiropractic Management of Low-Back Pain  
Ministry of Health, Government of Ontario Canada 1993  
[http://www.chiro.org/LINKS/GUIDELINES/Manga\\_93.shtml](http://www.chiro.org/LINKS/GUIDELINES/Manga_93.shtml)
- [7] The Adequacy of Medical School Education in Musculoskeletal Medicine  
Journal of Bone and Joint Surgery 1998 (Oct); 80-A (10): 1421-1427  
<http://www.chiro.org/ChiroZine/ABSTRACTS/Adequacy.shtml>
- [8] Educational Deficiencies in Musculoskeletal Medicine  
Journal of Bone and Joint Surgery 2002 (Apr); 84-A (4): 604-608  
[http://www.chiro.org/ChiroZine/ABSTRACTS/Educational\\_Deficiencies.shtml](http://www.chiro.org/ChiroZine/ABSTRACTS/Educational_Deficiencies.shtml)
- [9] A Comparison of Chiropractic Student Knowledge Versus Medical Residents  
Proceedings of the World Federation of Chiropractic Congress 2001 Pgs. 255  
[http://www.chiro.org/ChiroZine/ABSTRACTS/A\\_Comparison\\_of\\_Chiropractic\\_Student\\_Knowledge.shtml](http://www.chiro.org/ChiroZine/ABSTRACTS/A_Comparison_of_Chiropractic_Student_Knowledge.shtml)
- [10] Arterial Dissections Following Cervical Manipulation: The Chiropractic Experience  
Canadian Medical Association Journal 2001 ( Oct 2); 165 (7): 905-906  
<http://www.cmaj.ca/cgi/content/full/165/7/905>
- [11] Misuse of the Literature by Medical Authors in Discussing Spinal Manipulative Therapy Injury  
J Manipulative Physiol Ther 1995 (May); 18 (4): 203-210  
[http://www.chiro.org/LINKS/ABSTRACTS/Misuse\\_of\\_literature.shtml](http://www.chiro.org/LINKS/ABSTRACTS/Misuse_of_literature.shtml)
- [12] Inappropriate Use of the Title Chiropractor and Term Chiropractic Manipulation in the Peer-reviewed Biomedical Literature  
J Manipulative Physiol Ther 1995 (May); 18 (4): 203-210  
[http://www.chiro.org/ChiroZine/ABSTRACTS/Inappropriate\\_Use\\_of\\_the\\_title.shtml](http://www.chiro.org/ChiroZine/ABSTRACTS/Inappropriate_Use_of_the_title.shtml)
- [13] Are German Orthopedic Surgeons Killing People With Chiropractic?  
ChiroZine ~ 3-26-2005 ~ Editorial Commentary  
[http://www.chiro.org/Professional\\_Regulation/](http://www.chiro.org/Professional_Regulation/)
- [14] Guidelines on Basic Training and Safety in Chiropractic  
World Health Organization ~ November 2005  
[http://www.chiro.org/LINKS/FULL/Basic\\_Training\\_and\\_Safety\\_in\\_Chiropractic.pdf](http://www.chiro.org/LINKS/FULL/Basic_Training_and_Safety_in_Chiropractic.pdf)
- [15] Guidelines for Chiropractic Quality Assurance and Practice Parameters  
Proceedings of the Mercy Center Consensus Conference; Page 171  
Aspen Publications 1993
- [16] Recent Considerations in Nonsteroidal Anti-inflammatory Drug Gastropathy  
American Journal of Medicine 1998 (Jul 27); 105 (1B): 315-385  
[http://www.chiro.org/LINKS/ABSTRACTS/Recent\\_Considerations.shtml](http://www.chiro.org/LINKS/ABSTRACTS/Recent_Considerations.shtml)
- [17] 36 Percent of Acute Liver Failures Are Linked to Acetaminophen  
U.S. News & World Report July 2, 2001  
[http://www.chiro.org/LINKS/ABSTRACTS/Liver\\_Failures\\_Are\\_Linked\\_to\\_Acetaminophen.shtml](http://www.chiro.org/LINKS/ABSTRACTS/Liver_Failures_Are_Linked_to_Acetaminophen.shtml)
- [18] US Congressional House Subcommittee Oversight Investigation.  
Cost and Quality of Health Care: Unnecessary Surgery.  
Washington, DC: Government Printing Office, 1976
- [19] Herman R. Back Surgery. Washington Post [Health Section], April 18, 1995

*\* These statements have not been evaluated by the Food and Drug Administration. This information is not intended to diagnose, treat, cure or prevent any disease.*

- [20] Testimony to the Department of Veterans Affairs' Chiropractic Advisory Committee  
George B. McClelland, D.C., Foundation for Chiropractic Education and Research March 25, 2003  
[http://www.chiro.org/LINKS/ABSTRACTS/  
Testimony\\_to\\_the\\_Department\\_of\\_Veterans\\_Affairs.shtml](http://www.chiro.org/LINKS/ABSTRACTS/Testimony_to_the_Department_of_Veterans_Affairs.shtml)
- [21] Incidence of Adverse Drug Reactions in Hospitalized Patients:  
A Meta-analysis of Prospective Studies.  
JAMA 1998 (Apr 15); 279 (15): 1200-1205
- [22] Nosocomial Infection Update  
Emerg Infect Dis 1998 (Jul); 4 (3): 416-420
- [23] Error in Medicine  
JAMA 1994 (Dec 21); 272 (23): 1851-1857
- [24] Medication errors in hospitalized cardiovascular patients  
Arch Intern Med 2003 (Jun 23); 163 (12): 1461-1466
- [25] Failed Back Surgery Syndrome: Diagnostic Evaluation  
Journal of the American Academy of Orthopaedic Surgeons 2006 (Sep); 14 (9): 534-543  
<http://tinyurl.com/24nn6m>
- [26] The Spine as Profit Center  
New York Times December 30, 2006  
<http://tinyurl.com/y9qohn>
- [27] A Risk Assessment of Cervical Manipulation  
vs. NSAIDs for the Treatment of Neck Pain  
J Manipulative Physiol Ther 1995 (Oct); 18 (8): 530-536  
[http://www.chiro.org/LINKS/ABSTRACTS/  
Risk\\_Assessment\\_of\\_Cervical\\_Manipulation.shtml](http://www.chiro.org/LINKS/ABSTRACTS/Risk_Assessment_of_Cervical_Manipulation.shtml)