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# UNDERSTANDING CHIROPRACTIC

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## The Chiropractic Approach to Health Care

Doctors of Chiropractic (DCs) are licensed health care professionals concerned with the diagnosis, treatment and prevention of neuromusculoskeletal disorders, and the effects of these disorders on the nervous system and general health.

DCs use natural and conservative methods of treatment and respect the human body's ability to heal itself. DCs treat the biomechanics, structure, and function of the spine, and its effects on the muscle and nerve systems, and take into account the role played by the proper function of these systems in the preservation and restora-

tion of health. Spinal integrity is an important factor in promoting healing through chiropractic and is achieved without surgery or drugs.

## Chiropractic Care is Unique

Chiropractic care involves manipulation/adjustment of the joints (spine or extremity) and associated therapy to promote spinal integrity. DCs manipulate/treat the joint dysfunction (subluxation) by using the hands, or a handheld instrument. DCs diagnose injuries and neuromusculoskeletal disorders, and treat individuals for pain, such as headaches, joint pain, neck pain, low-back pain and sciatica. DCs also treat osteoarthritis, carpal tunnel syndrome, tendonitis, sprains and strains, and a variety of other non-neuromusculoskeletal conditions.

## Chiropractic Education

Candidates must complete a minimum of three years of college-level courses prior to entering chiropractic school. Completion of a Doctor of Chiropractic degree requires four to five years of professional coursework. The education of a chiropractor is similar in total classroom hours to that of a medical doctor. An average of 4,822 hours is required in chiropractic schools, compared with 4,667 hours in medical schools.

Basic science courses comprise nearly 30 percent of the total hours in both chiropractic and medical school programs, and the two programs have comparable hours in biochemistry, microbiology and pathology. Chiropractors receive more training in anatomy and physiology, while medical doctors receive more training in public health. The 4,822 hours of classroom instruction in chiropractic school include 1,416 hours in basic science, 1,975 hours in diagnostic and treatment methods, and 1,431 hours in clinical internship.



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Chiropractic colleges focus on chiropractic principles, diagnosis, orthopedics, physiologic therapeutics and nutrition. Three areas – manipulative/adjustive techniques/spinal analysis, physical/clinical laboratory diagnosis, and diagnostic imaging – account for more than half of the education in clinical sciences. During their internship, chiropractors complete two years of hands-on clinical experience focusing on manipulation/adjustment as the primary treatment procedure. The emphasis in chiropractic clinical sciences is clearly on diagnosis and manipulative/adjustive therapy.

## Clinical Competency

A chiropractic graduate must pass national licensing board examinations before receiving a license to practice. The multi-part examination is comprised of written and practical clinical sections. Prior to 1965, a DC took the same basic science board examination as a medical doctor. Today, the examination is separate, but equivalent, to the medical examination. The principal testing agency for the chiropractic profession is the National Board of Chiropractic Examiners (NBCE). The top goals in administering standardized exams are the promotion of high standards of competence and assistance to the state licensing agencies in assessing competence.

## Chiropractic Works and Saves Money

In the U.S., the total annual cost for health care and lost productivity related to low-back pain is estimated to be nearly \$100 billion! Research indicates that low-back pain is the most expensive source of workers' compensation costs in North America.

Numerous studies show chiropractic is an effective and efficient means of natural healing. Below are just some of these studies and their findings.

### The Manga Report

The Manga Report is the most comprehensive analysis of low-back pain to date. Commissioned by the Ontario Ministry of Health, the report shows chiropractic treatment is cost-effective, safe, has a high rate of patient satisfaction, and is more effective than medical treatment for low-back pain.

The report recommends management of low-back pain be moved from medical doctors to chiropractors and found that injured workers with low-back pain returned to work much sooner when treated by chiropractors than by medical doctors. The report also notes evidence that patients are much more satisfied with chiropractic management of low-back pain than with medical management.

The Manga Report concluded: "There would be highly significant cost savings if more management of low-back pain was transferred from physicians to chiropractors. Users of chiropractic care have significantly lower health care costs, especially inpatient costs, than those who use medical care only."

### Archives of Internal Medicine Study

A study published in the October 11, 2004 edition of the *Archives of Internal Medicine* compared 700,000 health plan members with a chiropractic benefit with 1 million members of the same plan who did not have the chiropractic benefit. The study found that members with chiropractic coverage had lower annual total health care expenditures per member per year (\$1,463 vs. \$1,671). Having chiropractic coverage was associated with a 1.6% decrease in total annual health care costs at the health plan level. Also, patients with chiropractic coverage had lower average back pain episode related costs (\$289 vs. \$399).

### The AMI Study

In this study, a chiropractic network in which DCs performed all patient examinations, treatments, and procedures at their own discretion was constructed. Recommended follow-up visits, choice of appropriate treatment, and ancillary therapies utilized did not require approval from an MD. The original study, which focused on the years 1999-2002, found decreases of: 43 percent in-hospital admissions per 1,000; 58.4 percent in hospital days per 1,000; 43.2 percent in outpatient surgeries and procedures per 1,000; and, 51.8 percent in pharmaceutical costs. It noted that: "The AMI experience seems to indicate that a nonpharmaceutical/nonsurgical orientation can reduce overall health care costs significantly and yet deliver high quality care."

This study was updated in 2007, covering the years 2003-2005. The results of the original study were confirmed, with demonstrated decreases of 60.2 percent in in-hospital admissions, 59 percent in hospital days, 62 percent in outpatient surgeries and procedures, and 85 percent in pharmaceutical costs.

### The Stano Study

This study, conducted by Oakland University Economics Professor Dr. Miron Stano, found that, when costs of advanced imaging and referrals to physical therapists and other providers were added, chiropractic care costs for chronic patients were 16 percent lower than medical care costs. If the study would have included hospitalization or surgical costs, two very expensive medical treatments for low-back pain, or over-the-counter medications, the savings from chiropractic would have been even greater. Additionally, chiropractic patients showed

an advantage over medical patients in pain, disability, and satisfaction outcomes.

## The Procedures Study

This study demonstrates that chiropractic care leads to lower costs by reducing the rates of surgery, advanced imaging, inpatient care, and plain-film radiographs in patients with low-back and neck pain. The study examined the claims data from a managed care health plan over a four-year period. The use rates of the high-cost procedures mentioned above were compared between employer groups with and without a chiropractic benefit. For patients with both low back and neck pain, the use rate of all four of these categories was lower in the group with chiropractic coverage. See the table below.

The study concludes: “Among employer groups with chiropractic coverage compared with those without such coverage, there is a significant reduction in the use of high-cost and invasive procedures for the treatment of back pain.”

## The North Carolina Study

This study looked at more than 43,000 workers’ comp. claims over a 19-year period (1975-1994) and found dramatic differences in the average treatment costs between chiropractic patients, medical patients, and patients treated by both. The analysis revealed that the average total cost of an injured worker’s claim managed by a medical doctor was \$21,774 more than claims managed by a DC. For chiropractic patients, however, average treatment costs were only \$663, roughly 18 percent of the cost of medical care, and 13 percent of the cost of combined care.

Additionally, injured workers treated by chiropractors experienced lost work days for an average of 33 days – 143 days less than workers seeing an MD, and more than 200 days less than workers treated by MDs and DCs, and hospital inpatient and outpatient care costs for medical patients were \$1,995 and \$2,161 more per worker, respectively, than for chiropractic patients.

The study concluded: “It seems likely that substantial savings to the workers’ compensation system would be possible if chiropractic services were increased in North Carolina.”

### Results from the Procedures Study

Procedure	Low-Back Pain		Neck Pain	
	Per-Episode Decrease	Per-Patient Decrease	Per-Episode Decrease	Per-Patient Decrease
Surgery	32.1 percent	13.7 percent	49.4 percent	31.1 percent
CT/MRI	37.2 percent	20.3 percent	45.6 percent	25.7 percent
Inpatient Care	40.1 percent	24.8 percent	49.5 percent	31.1 percent
Radiographs	23.1 percent	2.2 percent	36.0 percent	12.5 percent

## The British Medical Research Council Study

The British Medical Research Council conducted a 10-year study that showed chiropractic care was significantly more effective than medical treatment for patients with chronic and severe pain.

## The Annals of Internal Medicine Study

This study compared the effectiveness of manual therapy, physical therapy, and continued care by a general practitioner in patients with nonspecific neck pain. The success rate at seven weeks was twice as high for the manual therapy group (68.3 percent) as for the continued care group. Manual therapy scored better than physical therapy on all outcome measures. Additionally, patients receiving manual therapy had fewer absences from work than patients receiving physical therapy or continued care, and manual therapy resulted in statistically significant less analgesic use than continued care.

## The Nevada Workers’ Compensation Study

This study found loss of work time under chiropractic care is less than one-third of the time lost under medical care. The study also found that the average medical cost per patient was 260 percent higher than the average chiropractic cost.

## Chiropractic Resource Organization Study

Another recent study published on the Chiropractic Resource Organization website reported the cost of treating episodes of low-back pain was 28 percent lower in patients whose health plan provided chiropractic coverage compared to health plans without coverage. And, total health care costs were 12 percent less for patients in plans that reimbursed for chiropractic services.

## The Oakland University Study

Oakland University found “patients who received chiropractic care incurred significantly lower health care costs than patients treated solely by medical or osteopathic physicians.” Total insurance payments were 30 percent higher for patients who elected medical care only.

## **The Texas Workers' Compensation Report**

The Texas Chiropractic Workers' Compensation Report found the average claim for a worker with a low-back injury was \$15,884. If a chiropractor provided at least 90 percent of the care, however, the average cost declined by more than 50 percent, to \$7,632.

## **American Journal of Managed Care Study**

This study found chiropractic care was substantially more cost-effective than conventional care. The authors also concluded that properly managed chiropractic care can yield outcomes, in terms of surgical requirements and patient satisfaction, that are equal to those of non-chiropractic care, at a substantially lower cost per patient.

## **The Utah Study**

The Utah Study compared the cost of chiropractic care to the cost of medical care for conditions with identical diagnostic codes and found that cost was almost 10 times higher for medical than for chiropractic claims. Also, the number of work days lost was nearly ten times higher for those who received medical care.

## **The Florida Study**

The Florida Study showed patients receiving chiropractic care rather than medical care had lower treatment costs by more than 50 percent.

## **Chiropractic is Mainstream**

A study in the May 2000 issue of the *Journal of Manipulative and Physiologic Therapeutics* found chiropractic patients expressed much greater satisfaction with chiropractic rather than overall medical care (90 percent to 52 percent). Also, a higher proportion of chiropractic patients (56 vs. 13 percent) reported their low-back pain was better or much better, whereas nearly one-third of medical patients reported their low-back pain was worse or much worse.

The *American Journal of Medicine* reported on studies that investigated the risks between spinal manipulation and other treatments for the same conditions. For instance, one analysis concluded there was no evidence that nonsteroidal anti-inflammatory drugs (NSAIDs) were any more effective than spinal manipulation, but the risk of serious complications or death was between 100 and 400 times greater with NSAIDs. In another review, estimates of serious gastrointestinal events from NSAIDs

were 1 per 1,000 patients, whereas complications of cervical manipulations were 5 to 10 per 10 million treatments.

Additional studies by noted chiropractic researcher BP Symons, the RAND Corporation and Duke University all found cervical manipulation, when performed by a qualified, licensed DC, is extremely safe and effective. In fact, the Duke study said cervical spinal manipulation "has a very low risk of serious complications," which may be "one of its appeals over drug treatment."

The Federal government and the U.S. court system have also recognized chiropractic. The Agency for Health Care Policy and Research (AHCPR) released guidelines stating that the risk of serious complications from lumbar spine manipulation is rare and that manipulation should be pursued before considering surgery.

Additionally, in the case of Wilk v. American Medical Association, the U.S. Supreme Court cited specific studies that showed that chiropractors "are twice as effective as medical physicians and physical therapists in the care and alleviation of neuromechanical problems."

Finally, the limitations of conventional medicine and the desire for less invasive medical treatment has led many patients to seek therapy through practitioners of complementary and alternative medicine such as chiropractors. A 1998 article discussing trends in alternative medicine in the *Journal of the American Medical Association (JAMA)* noted that 42 percent of Americans used some form of alternative therapy in 1997, and made an estimated 629 million visits to alternative medicine practitioners, exceeding the number of visits to primary care physicians that year. In fact, chiropractic is now the third largest health care profession in the world.

A report by *Solucient*, the nation's leading source of health care business information, confirmed the growing popularity of chiropractic care, which rose 91 percent between 1999 and 2001. The report noted: "Physicians are increasingly recommending CAM, especially for chronic conditions, such as back problems." Researchers at the Stanford University School of Medicine reported that chiropractic had the second-highest rate of physician referral (40 percent) among CAM providers.

*Information provided by the Michigan Association of Chiropractors and the American Chiropractic Association.*

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