

# Insights Into Chiropractic

*Discerning the true nature of an alternative health care method*

## Chiropractic Treatment of the Injured Worker

### INTRODUCTION

Up until about 1987, the North American view of back pain was that it was a benign health problem. However, the results of the Quebec Task Force on Spinal Disorders(1) significantly changed this thinking, as did the report by Abenhaim et al.(2). Essentially, these reports demonstrated that about one third of worker's compensation costs are directly related to back pain, and that seven out of every ten dollars of compensation costs for back pain are accounted for by only 7% of all back cases. Obviously, dealing with injured workers, and specifically injured backs, is a challenging area that demands our attention.

Chiropractic treatment for injured workers is a practice that is endorsed by virtually all state industrial commissions in the United States. Furthermore, the chiropractic profession has amassed a large amount of evidence supporting the effectiveness of spinal manual methods in the treatment of work related spinal injuries. The focus of this issue of Insights Into Chiropractic will be to examine the studies that look at the chiropractic treatment of work related spinal injuries.

### COMPARATIVE STUDIES OF INDUSTRIAL BACK INJURY TREATMENT

The first study comparing medical versus chiropractic treatment of industrial back injuries was published in 1960(3). A private corporation known as, "First Research Corporation," was contracted to conduct a comparative analysis of the records of the Florida Industrial Commission

from the year 1956. The study covered all cases classified as sprains and strains of the neck, spinal column, and back. The total number of cases analyzed was 19,666. While this study goes back to cases of industrial injuries over forty years, and the costs and wages seem ludicrous by our current inflated standards, the pattern that emerges is one that has held up over subsequent decades of research.

Table 1 demonstrates the total average treatment costs for patients treated by medical physicians (MD) and doctors of chiropractic (DC). The table also lists the average number of work days lost and the total number of treatments to each provider. Although the total number of treatments is higher for injured workers treated by the doctor of chiropractic, the average overall costs and lost work days is significantly less.

A second study comparing the costs of medical versus chiropractic treatment for industrial back injuries was reported in 1971 by Rolland A. Martin, MD(4). In this study, 237 back injury claims without complications of other bodily injuries or illnesses was performed. Martin

	MD Treatment	DC Treatment
Ave. Tot. Cost	\$102	\$60
Work Days Lost	9	3
Number of Treatments	6	9

**Table 1. Average costs, lost work days, and number of treatments comparing medical physician and chiropractor(3).**

reports that of those cases treated exclusively by doctors of chiropractic, 82% resumed work after one week of time loss. All claims were closed without a disability award. Examining claims treated by medical physicians in which the diagnosis seemed comparable to the type of injury suffered by the workers treated by a doctor of chiropractic, only 41% of these workers resumed their occupational duties after one week of time loss.

In 1972, C.Richard Wolf, MD, utilizing records provided by the California Division of Labor Statistics and Research completed an independent study of back injuries routinely reported to the Division(5). Dr. Wolf's study was designed to compare time loss due to industrial back injury when treated by either a medical doctor or a chiropractor. Questionnaires were mailed to 1000 injured workers, half treated exclusively by chiropractors and half treated by medical physicians. Sixty-three percent replied to the survey. The results demonstrated in Table 2 present the clear advantage of chiropractic treatment in all categories.

A study of industrial back and neck injuries identified from the Utah State Insurance Fund between July and December of 1972 was reported in *The Lancet*(6). Patients having been treated by either a chiropractor or a medical physician were interviewed to determine their functional status before and after the accident and their satisfaction with the care received.

In terms of both the patients' perception of improvement in functional status and patient satisfaction, ". . . the chiropractors were at least as

effective with the patients they treated as compared to medical physician treatment(6)."'

In regards to patient satisfaction, the study demonstrated that patients perceived that the chiropractors were more attuned to the total needs of the patient than their medical counterparts. The patients also reported that the chiropractors tended to use language that the patients could understand and did not take a superior attitude toward their patients in comparison to medical physicians(6).

In 1977 another industrial back injury study was performed using records from the state of Wisconsin(7). The study compared back injury cases treated by chiropractors with similar cases that were treated by medical physicians. The results indicated that cases treated by a chiropractor will, on average, have a significantly shorter compensation time and healing period. The findings also indicated that chiropractic treatment results in lower overall treatment costs and lower indemnity amounts per case. Those findings are summarized in Table 3 below.

In 1988 the findings of a cost comparison study of chiropractic versus medical care for injured Florida workers was published(8). The conclusions of the study were similar to the previously reported studies in that patients treated by chiropractors returned to work sooner with lower overall treatment costs and overall lower indemnity payments than their counterparts treated by medical physicians. Wolk concluded, "The estimated average total cost of care, computed across all the major categories of treatment cost,

Method of Treatment	MD	DC
Ave. # work days lost	32	15.6
% reporting complete recovery	34.8	51
% reporting no lost work time	21	47.9
% losing over 60 work days	13.2	6.7

**Table 2. Chiropractic vs medical care for industrial back injury from 1972 in the state of California(5).**

Method of Treatment	MD	DC
Ave. healing period (days)	18.3	14.1
Ave. days of compensation	21.8	13.2
Ave. treatment cost	\$267.58	\$145.64
Ave. indemnity amount	\$442.74	\$285.92

**Table 3. Comparison of MD versus Chiropractic treatment for injured Wisconsin workers(7).**

was substantially higher for medical patients compared with chiropractors' patients: 83.8% higher in the claimant group that excluded surgery patients and 95.3% higher in the claimant group that included surgery patients(8)."

In a study published in the Journal of Occupational Medicine, Jarvis et al. found that patients treated with chiropractic manipulation fared significantly better than patients treated by medical physicians for back injury claims with identical diagnostic codes(9). The study looked at 3,062 back injury claims in the state of Utah. Costs for treatment were significantly less for the chiropractic patients and total compensation costs were 10-fold less for chiropractic claims as compared to medical claims.

Finally, these findings are not only consistently reported in the United States, but in other countries as well. Ebrall(10) found that Australian patients treated by chiropractors had better results than patients treated by medical physicians. As a result of his findings, Ebrall stated, "Comparisons of costs and outcomes were made between the two samples with the results being: (i) a significantly lower number of claimants requiring compensation days when chiropractic management was chosen, (ii) fewer compensation days taken by claimants who received chiropractic management, (iii) a greater number of patients progressed to chronic status when medical management was chosen, and (iv) a greater average payment per claim with medical management. A further result, intense level of practitioner/patient interaction by chiropractors. These results demonstrate a significant benefit to the community by chiropractic participation within the Victorian compensation scheme for work-related low-back pain."

## CONCLUSION

Industrial related back injuries are common. Multiple studies from various states across the United States and from Australia indicate that chiropractic management of these injuries is clinically more effective and is less expensive than medical care. On average, the trend that began in 1956 has continued to the present: injured workers treated by doctors of chiropractic return to work in about half the time and for about half the costs as compared to injured workers treated by medical physicians. As a result of these findings, chiropractic treatment should be a common first line of treatment for work related injuries of the neck and back.

## REFERENCES

1. Quebec Task Force on Spinal Disorders. Scientific approach to the assessment and management of activity-related spinal disorders: A monograph for clinicians. Report of the Quebec Task Force on Spinal Disorders. *Spine* 1987;12(Suppl 7):S1-S59.
2. Abenheim L, Suissa S, Rossignol M. Risk of recurrence of occupational back pain over three years of follow-up. *Br J Ind med* 1988;45:829-833.
3. A survey and analysis of the treatment of sprain and strain injuries in industrial cases. Tallahassee, FL: First Research Corporation. 1960.
4. Martin RA. A study of time loss back claims. Salem, OR: Workmen's Compensation Board, State of Oregon. March, 1971.
5. Wolf C. Industrial back injury. *Int Rev Chiro* 1974;26:6-7.
6. Kane RL, Leymaster C, Olsen D, Woolley FR. Manipulating the patient: a comparison of the effectiveness of physician and chiropractor care. *Lancet* 1974;June 24:1333-1336.
7. Duffy DJ. A study of Wisconsin industrial back injury cases. Madison, WI: Dept. of Market Research, University of Wisconsin. 1978.
8. Wolk S. Chiropractic versus medical care: A cost analysis of disability and treatment for back-related worker's compensation cases. Arlington, VA: Foundation for Chiropractic Education & Research. 1988.
9. Jarvis KB, Phillips RB, Morris EK. Cost per case comparison of back injury claims of chiropractic versus medical management for conditions with identical diagnostic codes. *J Occupational Med* 1991;33:847-852.
10. Ebrall PS. Mechanical low-back pain: a comparison of medical and chiropractic management within the Victorian workcare scheme. *Chiro J Australia* 1992;22:47-53.