

Research & Education

Research Proves It: For Effectiveness and Efficiency, Chiropractic Can't Be Beat!

Health care costs for the treatment of musculoskeletal conditions are substantial. There were more than 132 million physician visits for musculoskeletal symptoms in 2006. According to a 2008 report from the American Academy of Orthopaedic Surgeons, musculoskeletal disorders cost the United States approximately \$850 billion per year. Another study found that the total cost of treating back pain alone in the U.S. has risen 65 percent in the past decade and now rivals the economic burden of treating cancer. Pharmaceuticals and surgery often drive these costs, meaning that the noninvasive and drug-free approach of chiropractic can greatly reduce expenditures while also representing a vast improvement in public health.

The efficacy and cost-effectiveness of chiropractic care in relationship to the medical model has become a critical issue. The growth of managed care networks and other systems restricting access to chiropractic has heightened the need for additional evidence that can be used by policymakers to better allocate health care dollars. The studies below add to the growing body of scientific evidence suggesting that chiropractic is a safe, effective, and efficient treatment for low back and neck pain, especially when compared to traditional medical care.

What's New? The Latest Research

"As more data continues to surface touting the benefits of chiropractic care – lower costs, less risks and higher satisfaction rates – I expect that patients and practitioners will move toward considering chiropractic first, medicine second and surgery last,"

- Gerald Clum, DC
Spokesman, Foundation for Chiropractic Progress

The Early Predictors of Lumbar Spine Surgery Study (2013)

This study provided documentation of chiropractic care as a first option for back pain relief and surgical avoidance. Using Disability Risk Identification Study Cohort (D-RISC) data, the study authors examined the early predictors of lumbar spine surgery within three years among Washington state workers with new worker's compensation temporary total disability claims for back injuries, and found:

- Reduced odds of surgery for those under age 35, women, Hispanics and those whose first provider was a chiropractor.
- In fact, 42.7 percent of workers who first saw a surgeon had surgery, in contrast to only 1.5 percent of those who saw a chiropractor.
- This held true even when controlling for injury severity and other measures.

Conclusion: There was a very strong association between surgery and first provider seen for the injury, even after adjustment for other important variables.

Keeney, et al, "Early Predictors of Lumbar Spine Surgery after Occupational Back Injury: Results from a Prospective Study of Workers in Washington State," *Spine*. 38(11): 953-964. May 15, 2013

The Spine Study (2013)

This randomized controlled trial assessed changes in pain levels and physical functioning in response to standard medical care (SMC) versus SMC plus chiropractic manipulative therapy for the treatment of low back pain among 18 to 35-year-old active-duty military personnel. The findings included:

- Adjusted mean scores on the Roland-Morris Disability Questionnaire were significantly better in the SMC plus CMT group than in the SMC group at both week two and week four.
- Pain scores were also significantly better in the group that received CMT.
- Adjusted mean back pain functional scale scores were significantly improved in the SMC plus CMT group than in the SMC group, as well.

Conclusion: “The results of this trial suggest that CMT in conjunction with SMC offers a significant advantage for decreasing pain and improving physical functioning when compared with only standard care, for men and women between 18 and 35 years of age with acute LBP.”

Goertz et al, Adding Chiropractic Manipulative Therapy to Standard Medical Care for Patients with Acute Low Back Pain: Results of a Pragmatic Randomized Comparative Effectiveness Study, *Spine*. 38(8): 627-34. April 15, 2013

The Disability Recurrence Study (2011)

This study shows that the use of health maintenance care provided by physical therapist or physician services was associated with a higher disability recurrence than in chiropractic services or even no treatment at all. The study compared occurrence of repeated disability episodes across types of health care providers who treat claimants with new episodes of work-related low back pain. Researchers followed 894 patients over one year, using workers’ compensation claims data. Findings include:

- “Provider type during the health maintenance care period was significantly associated with recurrent disability... with the only or mostly physical therapy group having the highest proportion of recurrent disability (16.9%) and the only or mostly chiropractor and the no health maintenance care groups having the lowest proportion of recurrent disability (6.5% and 5.5%, respectively).”
- Statistically, this means you are twice as likely to end up disabled if you got your care from a PT, rather than from a DC. You’re also 60% more likely to be disabled if you choose an MD to manage your care, rather than a chiropractor.
- “There is a growing evidence that health-care-as-usual does not necessarily improve health outcomes in nonspecific LBP.”
- “No health maintenance care is generally as good as chiropractic care... chiropractors might be preventing some of their patients from receiving procedures of unproven cost utility value or dubious efficacy.”
- The only or mostly chiropractor group during the disability episode and health maintenance care periods and “chiropractor loyalists” during both periods combined had fewer surgeries, used fewer opioids, and had lower costs for medical care than the other provider groups.

Conclusion: In work-related nonspecific LBP, the use of health maintenance care provided by physical therapist or physician services was associated with a higher disability recurrence than with chiropractic services or no treatment.”

Cifuentes et al, "Health Maintenance Care in Work-Related Low Back Pain and Its Association With Disability Recurrence," Journal of Occupational and Environmental Medicine, Vol. 197 [epub], March 14, 2011

The Spine Care Pathway Study (2011)

This study of low back pain patients treated exclusively by chiropractors at a Massachusetts hospital achieved successful clinical outcomes in few visits, at low cost, and with high satisfaction rates. The study authors found that:

- These patients achieved successful clinical outcomes in an average of 5.2 visits at the low cost of \$302 per case
- Satisfaction rates remained above 95 percent
- In addition, self-reported pain and disability scores were reduced by about 70 percent over the course of just a few weeks.

Conclusion: This research confirms that the inclusion of evidence-based healthcare approaches, like chiropractic care, is the undergirding support within emerging value-based health plans and may represent a significant advancement in cost and clinical effectiveness.

Paskowski, et al, "A Hospital-Based Standardized Spine Care Pathway: Report of a Multidisciplinary, Evidence-Based Process," Journal of Manipulative and Physiological Therapeutics, 34(2): 98-106, February 2011

Older Relevant Studies

The Blue Cross Blue Shield of Tennessee Study (2010): Low back pain care initiated with a DC saves 40 percent on health care costs when compared with care initiated through an MD. Allowing DC-initiated episodes of care would have led to an estimated annual cost savings of \$2.3 million. Conclusion: "[I]nsurance companies that restrict access to chiropractic care for LBP may, inadvertently, be paying more for care than they would if they removed these restrictions."

The C.H.I.R.O. Study (2010): Guidelines-based care (including chiropractic spinal manipulation) is significantly more effective than usual care. After 16 weeks, patients referred to MDs saw almost no improvements in their disability scores, were likely to still be taking pain drugs, and saw no benefit with added physical therapy. Conclusion: "Compared to family physician-directed [usual care], full [clinical practice guidelines]-based treatment including [chiropractic spinal manipulative therapy] is associated with significantly greater improvement in condition-specific functioning."

Center for Health Value Innovation Report (2010): The Center for Health Value Innovation's 2010 addresses the role of chiropractic services as part of the continuum of care in value-based benefit design. Conclusion: "The addition of chiropractic coverage for the treatment of low back and neck pain at prices typically payable in US employer-sponsored health plans will likely increase value-for-dollar."

The Mercer Report (2009): The Foundation for Chiropractic Progress (F4CP) calls the study "one of the most significant reports regarding the cost effectiveness and clinical efficacy of chiropractic care." Conclusion: Chiropractic care for the treatment of "low back and neck pain is highly cost effective, represents a good value in comparison to medical physician care and to widely accepted cost effectiveness thresholds." "The addition of chiropractic coverage for the treatment of low back and neck pain...will likely increase value-for-dollar by improving clinical outcomes..."

ACN/UnitedHealth Group Report (2007): Chiropractic services for back and neck pain are significantly more cost-effective than all competing approaches. The single most important factor in holding down costs is the profession of the doctor with whom care was initiated. When care was initiated with a PCP, spinal care was characterized by radiology, pharmacy, hospitalization and surgery, rather than the more conservative care provided by DCs. Conclusion: “[B]y aligning decision-making with current clinical evidence Minnesota chiropractors produce large improvement in disability at a low episode cost.”

The AMI Study (2004, 2007 follow-up): When comparing a chiropractic network in which DCs performed all patient examinations, treatments, and procedures at their own discretion, to a more traditional medical model, a comparative analysis of clinical and cost outcomes found decreases of 43 percent in hospital admissions, 58.4 percent in hospital days, 43.2 percent in outpatient surgeries and procedures, and 51.8 percent in pharmaceutical costs. A three-year follow-up study demonstrated even greater reductions in both clinical and cost utilization. Conclusion: “The AMI experience seems to indicate that a nonpharmaceutical/ nonsurgical orientation can reduce overall health care costs significantly and yet deliver high quality care.”

The Stano Study (2005): Dr. Miron Stano, a professor of economics at Oakland University in Rochester, has done a number of seminal, groundbreaking studies regarding the cost-efficiency of chiropractic care. His latest study found that chiropractic and medical care have comparable costs (not counting hospitalizations and surgical costs) for treating chronic low-back pain, with chiropractic care producing significantly better outcomes. Conclusion: “Chiropractic patients with chronic LBP showed an advantage over medical patients in pain, disability, and satisfaction outcomes without additional costs.”

The Procedures Study (2005): The study analyzed use rates of advanced imaging, surgery, inpatient care, and plain-film radiographs between employer groups with and without a chiropractic benefit., with chiropractic care leading to lower costs by reducing the rates of all four in patients with low-back and neck pain. Conclusion: “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 California Study (2004): This study concluded that if all members of the examined plan had chiropractic coverage, total health care costs would drop by 12 percent and the plan would save \$47.5 million per year, the result of less utilization of hospital beds, drugs, surgery, x-rays and, most importantly, speedier patient recovery times. Conclusion: Access to managed chiropractic care may reduce overall health care expenditures.

The Spinal Manipulation Efficacy Study (2005) Initial and extended follow-up showed that the application of spinal manipulation revealed a broad-based long-term benefit: Five of the seven main outcome measures showed significant improvements, compared with only one item in the acupuncture and medication groups. Conclusion: “In patients with chronic spinal pain syndromes, “spinal manipulation, if not contraindicated, may be the only treatment modality of the assessed regimens that provides broad and significant long-term benefit.”

The North Carolina Study (2004): This study found dramatic differences in the average treatment costs between chiropractic patients, medical patients, and patients treated by both. For chiropractic patients, costs, lost work days, and hospital inpatient and outpatient costs were significantly lower. Conclusion: “[I]t seems likely that substantial savings to the workers’ compensation system would be possible if chiropractic services were increased in North Carolina.”

The Efficacy of Chiropractic for Chronic Low-Back Pain Study (2004): Analysis of the data showed that in patients who received maintenance spinal manipulation, disability scores were significantly lower after a 10-month period than before the initial phase of treatment. Conclusion: The study “shows the positive effects of preventive chiropractic treatment in maintaining functional capacities and reducing the number and intensity of pain episodes after an acute phase of treatment.”

The DNA Repair Study (2005): This landmark study suggests that wellness care provided by doctors of chiropractic may improve health behaviors, enhance patient-perceived quality of life, and reduce health care costs. The study found that chiropractic care could influence basic physiological processes that affect oxidative stress and DNA repair. The study’s results offer a scientific explanation for the positive health benefits reported by chiropractic patients. Conclusion: “The results clearly support the recommendations being made for wellness care by chiropractors.

About the Author:

For more information on these studies, including expanded analyses citations, and (in some cases) the full study, contact Tim Gaughan at the MAC office at (800) 949-1401 or tim@chiromi.com.