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Chiropractic Treatment: What You Should Know

by Robin Brett Parnes, MS, MPH

What Is Chiropractic Treatment?



Chiropractic treatment has gained increasing acceptance by both consumers and insurance agencies, many of which now offer plans covering the treatment. Yet, the research regarding the effectiveness of chiropractic treatment is inconclusive at best. In addition, while chiropractic is generally safe, there are a few risks associated with it.

Chiropractic, which means "done by hand," is a medical system founded approximately 100 years ago by Canadian Daniel David Palmer. It is based on the theory that many illnesses originate in the spine, and for this reason it focuses on spinal manipulation. Chiropractic physicians may also utilize physical therapy techniques, as well as methods drawn from other branches of alternative medicine, such as herbs and supplements.

Uses

Most visits to chiropractor physicians are for back pain, but it is also commonly used to treat:

Headaches
Neck pain
Pain in other areas such as the shoulders, knees, and jaw
Breech birth positioning of a baby
Infantile colic
General health

How It Works

Since its origin, chiropractic theory has based itself on "subluxations," or vertebrae that have shifted position in the spine. These subluxations are said to impede nerve outflow and cause disease in various organs. A chiropractic treatment is supposed to "put back in" these "popped out" vertebrae. For this reason, it is called an "adjustment."

However, no real evidence has ever been presented showing that a given chiropractic treatment alters the position of any vertebrae. In addition, there is as yet no real evidence that impairment of nerve outflow is a major contributor to common illnesses, or that spinal manipulation changes nerve outflow in such a way as to affect organ function.

Other theories suggest that chiropractic manipulation may relieve pain by "loosening" vertebrae that have become relatively immobile rather than by changing their position. In addition, the sudden movements of manipulation may alter the response patterns of nerves in the spine, again relieving pain.

Depending on your condition, chiropractic treatment is usually conducted on a two- or three-times-a-week basis, for a month or more. Some chiropractors feel that regular care is necessary to help maintain sound health and fitness. Others will ask to see you only as needed.

What Do Studies Show About Chiropractic Treatment?

Does It Work?

There is some evidence that chiropractic treatment may relieve pain, at least temporarily. The best evidence regards migraine headaches and other forms of headache. Studies on chiropractic for back pain and neck pain have yielded mixed results. But on a positive note chiropractic does seem to be at least as effective as other commonly used treatments for these conditions. Chiropractic has also been studied as a treatment for asthma, bedwetting, dysmenorrhea (menstrual pain), infantile colic, phobias, and premenstrual syndrome (PMS), but thus far the results of studies have not been very positive.

Is It Safe?

Chiropractic manipulation appears to be generally safe, rarely causing significant side effects. The most common reaction is local discomfort following therapy, which generally disappears within hours of treatment. Other side effects include temporary headache, tiredness, and discomfort radiating from the site of the adjustment.

However, articles have been published that document a total of almost 200 cases of more serious complications that appear to have been caused by manipulation of the neck. These include stroke, vertebral fracture, disc herniation, severely increased sensation of nerve pinching, and rupture of the windpipe. More than half of these reports involve some form of stroke, often due to a tear in a major blood vessel at the base of the neck (the vertebral artery).

Although attempts have been made to determine in advance who will experience strokes following chiropractic, they have not been successful. Thus, stroke must be considered an unpredictable, though rare, side effect of chiropractic manipulation of the neck. To put this in perspective, however, the rate of complications from chiropractic is extremely low; according to one estimate, only one complication per million individual sessions occurs. Among people receiving a course of treatment involving manipulation of the neck, the rate of stroke is perhaps one per 100,000 people. The rate of death is one per 400,000.

By comparison, serious medical complications involving common drugs in the ibuprofen family (nonsteroidal anti-inflammatory drugs, or NSAIDs) are far more common. Among people using them for <u>arthritis</u>, NSAIDs result in hospitalizations at a rate of about four in 1,000 people, and death at a rate of four in 10,000. The rate of complications with these common over-the-counter drugs is perhaps 100-400 times greater than with chiropractic.

Certain health conditions existed before the spinal manipulation, such as nerve impingement causing severe nerve damage, or significant disease of the spinal bones.

Finally, some chiropractors make frequent use of \underline{x} -ray evaluations. There is no evidence that such evaluations meaningfully guide the course of treatment, and excess x-ray exposure is potentially harmful.

Is It Cost Effective?

There is some evidence that chiropractic may be less expensive than other forms of care, but it is not conclusive.

If You Decide to Visit A Chiropractor

If you're suffering from headaches, back pain, or neck pain, seeking chiropractic care might be worth a try, since it appears to be at least as helpful as other commonly used therapies. Look for a chiropractor who:

Does not require long-term or preventive care

Does not routinely take x-rays

Does not object to you seeing a specialist for a second opinion

Limits his practice to the treatment of musculoskeletal problems (pain/discomfort associated with muscles and joints)

Great caution should be used when considering neck mobilization or manipulation. Consider consulting with your physician before undergoing neck mobilization or manipulation.

RESOURCES:

American Chiropractic Association http://www.amerchiro.org/
Chirobase

http://www.chirobase.org/

National Association for Chiropractic Medicine

http://www.chiromed.org/

National Center for Complementary and Alternative Medicine

http://nccam.nih.gov/

REFERENCES:

Assendelft WJ, Bouter LM, Knipschild PG. Complications of spinal manipulation: a comprehensive review of the literature. *J Fam Pract.* 1996;42:475–480.

Astin J, Ernst E. The effectiveness of spinal manipulation for the treatment of headache disorders: a systematic review of randomized clinical trials. *Cephalalgia*. 2002;22:617–623.

Aure OF, Hoel Nilsen J, Vasseljen O. Manual therapy and exercise therapy in patients with chronic low back pain: a randomized, controlled trial with 1-year follow-up. *Spine*. 2003;28:525–531.

Carey TS, Garrett J, Jackman A, et al. The outcomes and costs of care for acute low back pain among patients seen by primary care practitioners, chiropractors and orthopedic surgeons: the North Carolina back pain project. *N Engl J Med.* 1995;333(14):913-917.

Cherkin DC, Deyo RA, Battie M, et al. A comparison of physical therapy, chiropractic manipulation, and provision of an educational booklet for the treatment of patients with low back pain. *N Engl J Med.* 1998:339(15): 1021-1029.

Considering complementary and alternative medicine. American Medical Association website. Available at: http://www.medem.com/. Accessed September 19, 2003.

Cooper RA, McKee HJ. Chiropractic in the United States: trends and issues. Milbank Q. 2003;81(1):107-38.

Coulter ID. The Appropriateness of Manipulation and Mobilization of the Cervical Spine. Santa Monica, CA: Rand Corporation: 1996.

Dabbs V, Lauretti WJ. A risk assessment of cervical manipulation vs. NSAIDs for the treatment of neck pain. *J Manipulative Physiol Ther.* 1995;18:530–536.

Giles LG, Muller R. Chronic spinal pain: a randomized clinical trial comparing medication, acupuncture, and spinal manipulation. *Spine*. 2003;28(14):1490-1502.

Gross A, Kay T, Hondras M, et al. Manual therapy for mechanical neck disorders: a systematic review. *Man Ther.* 2002;7:131.

Haldeman S, Kohlbeck FJ, McGregor M. Unpredictability of cerebrovascular ischemia associated with cervical spine manipulation therapy. *Spine*. 2002;27:49–55.

Homola S. What a rational chiropractor can do for you. Chirobase website. Available at:

http://www.chirobase.org/07Strategy/goodchiro.html. Accessed September 24, 2003.

Hondras MA, Long CR, Brennan PC. Spinal manipulative therapy versus a low force mimic maneuver for women with primary dysmenorrhea: a randomized, observer-blinded, clinical trial. *Pain.* 1999;81:105–114.

Hurwitz EL, Morgenstern H, Vassilaki M, Chiang LM. Frequency and clinical predictors of adverse reactions to chiropractic care in the UCLA neck pain study. *Spine*. 2005;30:1477–84.

Jarvis WT. Chiropractic: a skeptical view. Chirobase website. Available at:

http://www.chirobase.org/01General/skeptic.html. Accessed September 24, 2003.

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 Occup Med.* 1991;33:847–852.

Jull G, Trott P, Potter H, et al. A randomized controlled trial of exercise and manipulative therapy for cervicogenic headache. *Spine*. 2002;27:1835–1843.

Kaplan AP. Chiropractic for asthma: placebo effect. Complement Med Physician. 1999;4:75-76.

Ofman JJ. Chiropractic spinal manipulation for treatment of acute low back pain. *Altern Med Alert.* 1998;1:45–46. Low back pain. American Academy of Orthopedic Surgeons website. Available at: http://orthoinfo.aaos.org/. Accessed September 24, 2003.

Nielsen NH, Bronfort G, Bendix T, et al. Chronic asthma and chiropractic spinal manipulation: a randomized clinical trial. *Clin Exp Allergy.* 1995;25:80–88.

Nelson CF, Bronfort G, Evans R, et al. The efficacy of spinal manipulation, amitriptyline and the combination of both therapies for the prophylaxis of migraine headache. *J Manipulative Physiol Ther.* 1998;21:511–519.

Olafsdottir E, Forshei Ś, Fluge G, et al. Randomised controlled trial of infantile colic treated with chiropractic spinal manipulation. *Arch Dis Child.* 2001;84:138–141.

Peterson KB. The effects of spinal manipulation on the intensity of emotional arousal in phobic subjects exposed to a threat stimulus: a randomized, controlled, double-blind clinical trial. *J Manipulative Physiol Ther.* 1997;20:602–606. Reed WR, Beavers S, Reddy SK, et al. Chiropractic management of primary nocturnal enuresis. *J Manipulative Physiol Ther.* 1994;17:596–600.

Schiller L. Effectiveness of spinal manipulative therapy in the treatment of mechanical thoracic spine pain: a pilot randomized clinical trial. *J Manipulative Physiol Ther.* 2001;24:394–401.

Shekelle PG, Coulter I, Hurwitz EL, et al. Congruence between decisions to initiate chiropractic spinal manipulation for low back pain and appropriateness criteria in North America. *Annals of Internal Medicine*. 1998;121(1):9-17. Vernon H. Qualitative review of studies of manipulation-induced hypoalgesia. *J Manipulative Physiol Ther*. 2000;23:134—

Walsh MJ, Polus BI. A randomized, placebo-controlled clinical trial on the efficacy of chiropractic therapy on premenstrual syndrome. *J Manipulative Physiol Ther.* 1999;22:582–585.

Wilberg JMM, Nordsteen J, Nilsson N. The short-term effect of spinal manipulation in the treatment of infantile colic: a randomized controlled clinical trial with a blinded observer. *J Manipulative Physiol Ther.* 1999;22:517–522.

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