

# Healthy Living

Patient Information from the American Chiropractic Association

## How Safe Is Chiropractic Care?

Chiropractic is widely recognized as one of the safest drug-free, non-invasive therapies available for the treatment of back pain, neck pain, headaches, joint pain of the arms or legs, and other neuromusculoskeletal complaints. Although chiropractic has an excellent safety record, no health treatment is completely free of potential adverse effects.

The risks associated with chiropractic, however, are very small. Many patients feel immediate relief following chiropractic treatment. But some may experience mild soreness or aching, just as they might after exercise. Current literature shows that minor discomfort or soreness following spinal manipulation typically fades within 24 hours.<sup>1</sup>

In addition to being a safe form of treatment, spinal manipulation is incredibly effective, getting patients back on their feet faster than traditional medical care. Giles and Muller found that spinal manipulation may provide better short-term relief of chronic spinal pain than a variety of medications.<sup>2</sup> Two years later, they found that for treating chronic mechanical low-back pain and neck pain, spinal manipulation may provide broader and more significant long-term benefits than acupuncture or pain-relief medication.<sup>3</sup>

### Neck Adjustments

Neck pain and some types of headaches are sometimes treated through neck adjustment. Neck adjustment (often called cervical manipulation) works to improve joint mobility in the neck, restoring range of motion and reducing muscle spasm, which helps relieve pressure and tension. Neck adjustment is a precise procedure that is generally applied by hand to the joints of the neck. Patients typically notice a reduction in pain, soreness, and stiffness, along with an improved ability to move the neck.

Although neck manipulation is a remarkably safe procedure, some reports have associated high-velocity manipulation of the neck with a rare injury to one of the arteries in the neck, which can lead to a certain kind of stroke. However, the most recent study, published in the February 2008 edition of *Spine*, suggests that patients are no more likely to suffer a stroke following a chiropractic neck treat-



ment than they are after visiting their family doctor's office—and concluded that vertebral artery (VBA) stroke is a very rare event.<sup>4</sup>

The study, which analyzed nine years' worth of data, also suggests that any observed association between a vertebral artery (VBA) stroke and chiropractic manipulation most likely comes about when patients with an undiagnosed vertebral artery dissection seek care for neck pain and headache before they have a stroke. In other words, patients with a pre-existing arterial injury are sometimes treated by a doctor of chiropractic for what seems to be a simple case of neck pain. Instead, patients' discomfort turns out to be an evolving case of injury to a neck artery.

This type of arterial injury often takes place spontaneously or following everyday activities such as turning the head while driving, swimming, or having a shampoo in a hair salon. Patients with this condition may experience neck pain and headache that lead them to seek professional care, but the care they receive at that time is not the cause of the injury.

The best evidence indicates that the incidence of artery injuries associated with high-velocity upper neck manipulation is extremely rare—about 1 case in 5.85 million

manipulations.<sup>5</sup> To put this risk into perspective, if you drive more than a mile to get to your chiropractic appointment, you are at greater risk of serious injury from a car accident than from your chiropractic visit.

It is important for patients to understand the risks associated with some of the most common treatments for neck and back pain—prescription and over-the-counter nonsteroidal anti-inflammatory drugs (NSAIDs)—as these options may carry risks significantly greater than those of manipulation. According to a study from the *American Journal of Gastroenterology*, approximately one-third of all hospitalizations and deaths related to gastrointestinal bleeding can be attributed to the use of aspirin or NSAIDs such as ibuprofen.<sup>6</sup>

Furthermore, surgery for conditions for which manipulation may also be used carries risks many times greater than those of chiropractic treatment. Even prolonged bed rest poses some risks, including muscle atrophy, cardiopulmonary deconditioning, bone mineral loss, and thromboembolism.<sup>7</sup>

Researchers recently completed a comprehensive review of scientific evidence related to neck pain treatments. They found at least as much evidence supporting the safety and effectiveness of common chiropractic treatments, including manipulation, as for other treatments such as prescription and non-prescription drugs and surgery.<sup>8</sup>

If you are visiting your doctor of chiropractic with upper-neck pain or headache, be very specific about your symptoms. This will help your doctor offer the safest and most effective treatment, even if it involves referral to another health care provider. If the issue of stroke concerns you, do not hesitate to discuss it with your doctor of chiropractic. Depending on your clinical condition, he or she can forgo manipulation and instead can recommend joint mobilization, therapeutic exercise, soft-tissue techniques, or other therapies.

### Research Ongoing

ACA believes that patients have the right to know about the health benefits and risks associated with any type of treatment, including chiropractic. Today, chiropractic researchers are studying the benefits and risks of spinal adjustment in the treatment of neck and back pain through clinical trials and literature reviews.

All available evidence demonstrates that chiropractic treatment holds an extremely small risk. The chiropractic profession takes this issue very seriously and engages in training and postgraduate courses to recognize the risk factors in patients, and to continue rendering treatment in the most effective and responsible manner. ■

### References:

1. Senstad O, et al. Frequency and characteristics of side effects of spinal manipulative therapy. *Spine* 1997 Feb 15;435-440.
2. Giles LGF, Muller R. Chronic spinal pain: a randomized clinical trial comparing medication, acupuncture, and spinal manipulation. *Spine* 2003, 15 July;28(14):1490-1502.
3. Muller R, Giles LGF. Long-term follow-up of a randomized clinical trial assessing the efficacy of medication, acupuncture, and spinal manipulation for chronic mechanical spinal pain syndromes. *J Manip Physiol Ther* 2005;28(1):3-11.
4. Cassidy D, et al. Risk of vertebralbasilar stroke and chiropractic care. *Spine* 2008;33(4S):S176-S183.
5. Haldeman S, et al. Arterial dissection following cervical manipulation: a chiropractic experience. *Can Med Assoc J* 2001;165(7):905-06.
6. Lanas A, et al. A nationwide study of mortality associated with hospital admission due to severe gastrointestinal events and those associated with nonsteroidal anti-inflammatory drug use. *Am J Gastroenterol* 2005;100:1685-1693.
7. Lauret W. The Comparative Safety of Chiropractic. In Daniel Redwood, ed., *Contemporary Chiropractic*. NY Churchill Livingstone, 1997, p. 230-8.
8. Hurwitz E, et al. Treatment of neck pain: noninvasive interventions. *Spine* 2008;33(4S):S123-S152.



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