

## **"Stroke after chiropractic neck manipulation a 'small but significant risk,' Says American Heart Association**

Editorial Staff

A Stanford University team comprised of neurologist Walter Carlini, Philip Lee, MD, Georges McCormick, MD, and Gregory Albers, MD, reported on their survey findings on the incidence of chiropractic cervical manipulation causing stroke at the American Heart Association's 19th International Joint Conference on Stroke and Cerebral Circulation.

The survey asked 177 Calif. neurologists about the number of patients they treated in the past two years who had suffered a stroke within 24 hours of cervical chiropractic manipulation.

Though only 36 percent of the neurologists responded to the survey, "56 strokes were reported to be related to cervical chiropractic manipulation." Carlini said the rate of stroke in this study is "estimated to be about one in every 500,000 manipulations, affirming rates seen in a similar physician survey from the Netherlands."

According to the survey data, the strokes were usually caused by dissection of the vertebral arteries. A dissection was defined as occurring when the outer walls of the artery split apart, causing blood to leak into the space in between. As the space fills with blood, the inner wall of the artery swells and cuts off circulation to the brain.

"Our intent is not to scare people away from chiropractic manipulations. Indeed, most interventions by allopathic physicians have a higher complication rate than chiropractic interventions," said co-investigator Philip Lee, MD.

"We still need a better understanding of this issue, and at this point we don't want to make it a public issue that will raise unnecessary fear," said Dr. Carlini.

Quoted extensively in the AHA news release was Louis Sportelli, DC, acting as spokesperson for the American Chiropractic Association. He made the following points:

- "I'm glad the Stanford group's intent was to be cautious in bringing alarm to this issue; however, they have done just the opposite."
- "Stroke from manipulation is very rare, usually only with adjustments that involve rotation and extension of the neck simultaneously, followed by a high-force adjustment. Such a maneuver is not used if the signs and symptoms of stroke are present. While there is no way to determine which patients may be prone to stroke, some patterns have emerged. The classic patient who is at risk is a female, 20-46 years old, who is taking birth control pills, has chronic headaches, takes aspirin or blood thinners, or has high blood pressure."
- "Relating stroke to manipulation takes the issue out of context and fails to identify other forms of activity of equal risk." He compared the unlikelihood of stroke following cervical manipulation with "beauty parlor stroke syndrome" (stroke that occurs when the parlor

operator leans a customer's head back on a sink to wash the hair and moves the head back and forth), or strokes that have been known to occur when a driver rotates his/her head to look behind when backing up a car.

*Editor's note:* Two published sources of risk of stroke from cervical manipulation have concluded:

- .0002 percent, or 2-3 cases per million treatments<sup>1</sup>
- one in 10 million manipulations<sup>2</sup>

*References:*

1. Chapman-Smith D: *Chiropractic: A Reference Source of Modern Concepts*, 1998.
2. Cyriax J. *Textbook of Orthopedic Medicine, Vol. 1: Diagnosis of Soft Tissue Lesions*, London. Balliere Tindall, 1982.

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