

IFOMPT RESPONDS TO AMERICAN HEART ASSOCIATION CERVICAL MANIPULATION PAPER

Physical Therapists Prepared to Identify Benefits, Risks of Neck Manipulation for Appropriate Patients

New Zealand, August 11, 2014 – The International Federation of Manipulative Physical Therapists (IFOMPT) appreciates the efforts of the American Heart Association (AHA) to bring to light the benefits and risks of cervical or neck manipulation, but believes the [scientific statement](#) released on August 7, 2014 is significantly limited in its scope, context, and ability to reduce the burden of stroke on society and may place unnecessary fear in the public of an effective low risk treatment intervention. The international orthopaedic manual physical therapy community recognizes the rare but potentially significant risks associated with cervical manipulation—a treatment that can effectively address conditions such as headache and neck pain that are highly prevalent in our society—and is committed to educating the public about the appropriateness of neck manipulation for individual patients.

“Physical therapists are aware that on very rare occasions manipulation has been associated with cerebral vascular accidents or strokes,” said Annalie Basson PT. “In fact, IFOMPT has taken a leadership role in development of the document the *International Framework for Examination of the Cervical Region for potential of Cervical Arterial Dysfunction prior to Orthopaedic Manual Therapy Intervention*, for the purpose of developing consensus among the 22 countries represented in IFOMPT on a clinical reasoning framework to support clinical decision making for the effective examination of patients to enable safe use of treatment to the cervical spine, including manipulation, for appropriate patients and to minimize potential risk associated with treatment.”

It is estimated that 22% to 70% of the population will have neck pain at some time in their lives.² Approximately 44% of patients

experiencing neck pain will develop chronic symptoms, and many of them will develop some level of disability.³

To date, many scientific studies support cervical manipulation for the treatment of head and neck pain of mechanical origin, or for problems that originate in spinal joints, discs, vertebrae, or soft tissues. For instance, a 2007 systematic review of 88 randomized controlled trials in the *Journal of Rheumatology*⁵ concluded that exercise combined with manipulation or mobilization demonstrated both pain relief and functional improvement in adults with acute, subacute, or chronic mechanical neck disorders. A study in the medical journal *Spine*⁶ concluded that manipulative therapy and exercise can reduce the symptoms of headaches of cervical origin and that the effects are long lasting.

Guidelines for manual therapy treatment of the cervical spine have been available for the last 2 decades to assist practitioners in clinical decision making.^{7,8} In 2012, a clinical reasoning framework¹ was developed by IFOMPT to provide guidance for the assessment of patients for the likelihood of stroke in advance of treatment of the cervical spine, including cervical manipulation. Identified risk factors associated with an increased risk of stroke include history of trauma to the cervical spine, history of migraine-type headache, hypertension, cardiac or vascular disease, diabetes, blood clotting disorders, history of smoking, and recent infection. The framework aims to place risk in an appropriate context that is informed by the best available evidence, enabling a risk versus benefit analysis for an individual patient, with a strong emphasis on the clinical decision-making process.

“While physical therapists recognize the potential risks associated with cervical manipulation, it is important to view the American Heart Association statement in context,” explained Basson. “Anti-inflammatory drugs, injections, and surgery for the treatment of neck pain or headaches have much greater risks than cervical manipulation.” For instance, the US Food and Drug

Administration (FDA) recently issued a warning⁹ about the dangers of administering epidural injections of corticosteroids to relieve neck and back pain. According to the FDA, the off-label use could result in blindness, stroke, paralysis, and death.

Incidents of stroke associated with cervical manipulation of the spine are rare. In a 2002 review¹⁰ of 64 cases of cerebrovascular ischemia, or lack of blood flow to the brain, associated with cervical spine manipulation, researchers concluded that strokes after manipulation appear to be unpredictable and should be considered a rare complication of this treatment approach. In addition, a 2010 systematic review in the scientific journal *Manual Therapy*¹¹ found no strong evidence linking the occurrence of adverse events to cervical manipulation and/or cervical mobilization techniques.

IFOMPT agrees that patient safety must come first when making decisions on the best treatment for neck pain. “The international physical therapy community is committed to educating patients and practitioners about the risks and benefits of cervical manipulation,” added Basson. “Physical therapists understand the potential small risk of stroke associated with neck manipulation, and we base decisions on the use of this procedure on a detailed and ongoing evaluation and a treatment plan that is consistent with the preferences and expectations of our patients.”

Citations

¹Rushton A, Rivett D, Carlesso L et al: International framework for examination of the cervical region for potential of cervical arterial dysfunction prior to Orthopaedic Manual Therapy Intervention, *Man Ther* 19:222-226, 2014.

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mobilization for mechanical neck disorders. *Spine*. 2004;29(14):1541-8.

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⁶Jull G, Trott P, Potter H, et al. A randomized control trial of exercise and manipulative thereapy for cervicogenic headache. *Spine*. 2002;27(17):1835-1843.

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⁸Kerry R, et al. Cervical arterial dysfunction and manual therapy: a critical literature review to inform professional practice. *Man Ther*. 2008:278-288.

⁹FDA Drug Safety Communication: FDA requires label changes to warn of rare but serious neurologic problems after epidural corticosteroid injections for pain. 4-23-2014.

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¹¹Carlesso L, et al. Adverse events associated with the use of cervical manipulation and mobilization for the treatment of neck pain in adults: a systematic review. *Man Ther*. 2010;doi: 10.1016/j.math.2010.02.006.