

# The Wellness Express

Jump on the train to good health

Issue 3, April 2010

## Balance, Body Awareness and Chiropractic

Presented by: Erin Mills Optimum Health

Have you ever wondered how you know where your fingers and toes are, even when you're not looking at them? You may be surprised to learn your joints provide your brain with a great deal of information about the position of your body. This information is not only important for body awareness but also for maintaining your balance.

### How Do Joints Keep Your Balance?

There are specialized nerve endings found in joints and muscles called proprioceptors. They feed directly to a part of your brain known as the cerebellum. Together with its connections to other areas of the brain that process sensory and motor information, the cerebellum helps coordinate body movements and posture.

### The Role of Eyes and Ears

The other main sources of information required for balance come from the inner ear and the eyes.

In the inner ear, three semicircular canals help give you an awareness of your head's position. When stimulated by movement, little hairs in the fluid-filled canals provide proprioceptive information to your central nervous system. Information about the static position of your head is also provided by another inner ear structure: the vestibule. Movement of tiny crystals creates a signal that tells your body where your head is located relative to gravity.

In the oculomotor system, nerves from the tiny muscles around your eyes give your brain information about head and body movement. Combined with information from the inner ears, the vestibulo-ocular system helps keep your eyes focused on an object, even when your head is moving.

Since joints and muscles are key to balance and body awareness, conditions that affect these areas can impact your sense of balance. It should be no surprise that vertebral subluxations in your spine may contribute to balance problems.

### Exercise of the Week

Lumbar Stabilization – Leg lifts

Difficulty: Moderate

*(Consult your chiropractor before starting this or any other exercise.)*

Start: Lie on back with arms out to sides. Keeping legs straight, bend hips to 90 degrees so bottom of feet are pointing up toward ceiling.

Exercise: Keeping spine steady, lower both legs slowly toward floor. As soon as you feel lower back starting to arch, stop. Pause for 1-2 counts, then bring legs back to starting position. Perform 5-10 repetitions.



Presented by:

Dr. Micheline Cote

Dr. Ken Peever

Dr. Scot Caven

## Physical Trauma and Vertigo

Have you ever felt the room is spinning around you, making it difficult to remain standing? If so, you experienced vertigo. Although most cases are short-lived, sometimes vertigo persists. It can be caused by a number of issues, including inner ear disturbances, eye problems, brain pathology, infection or physical trauma.

## Can Chiropractic Help Your Balance?

Research into trauma-induced vertigo reveals that people who have had injuries to the head and neck, such as whiplash, are more likely to benefit from spinal adjustments.

One chiropractor reviewed 60 cases of chronic, trauma-induced vertigo that she treated over an 8-year period. Of these patients, 56 recalled having experienced trauma to the head and neck prior to developing symptoms. All these patients responded favorably to chiropractic adjustments to the upper cervical area. And 48 patients (80%) were completely symptom-free after one to six months of chiropractic care.<sup>1</sup>

In another study, a research group followed 50 vertigo patients through orthopedic assessment, then treatment for their symptoms. Of the 50 patients, 31 were identified as having cervical spine dysfunction. The other 19 did not show signs of this problem. When the patients with cervical dysfunction were treated with manipulation and mobilization of the cervical spine, 24 patients (77%) improved, and 5 patients were symptom-free.

In the other group - which did not receive manipulation because cervical spine dysfunction could not be identified - only 5 patients saw improvement (26%). And no one in this group became fully free of vertigo symptoms.<sup>2</sup>

## Do You Experience These Problems?

Aside from vertigo, cervical subluxations can affect you in more subtle ways. Are you getting clumsier? Losing dexterity in your fingers? Tend to bump into things more often? If you said "yes," you could be experiencing subluxations in your neck. Ask your chiropractor to check you for this problem.



## Quote of the Week

"To feel 'fit as a fiddle', you must tone down your middle."  
- Unknown



## References and Sources:

1. Elster EL. Sixty patients with chronic vertigo undergoing upper cervical chiropractic care to correct vertebral subluxation: A retrospective analysis. *J Verteb Sublux Res* 2006 (Nov 8); 1-9.
2. Galm R, Rittmeister M & Schmitt E. Vertigo in patients with cervical spine dysfunction. *Eur Spine J* 1998; 7(1): 55-58.



This newsletter is written and designed by Mediadoc™ exclusively for its chiropractic clients.

Writer/Editor: David Coyne

Writer: Dr. Christian Guenette, DC

Design: Elena Zhukova

Photos: Fred Goldstein

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