

# OPTIMAL HEALTH UNIVERSITY™

Presented by Dr. Wayne Terai

## Neck Injuries Impact Overall Health

*Regardless of the source, spinal traumas almost always result in vertebral subluxations — misalignment or restriction of vertebrae (spinal bones). And vertebral subluxations are associated with a vast assortment of health issues, such as headaches, migraines, backaches, neck pain, carpal tunnel syndrome and now many other, more serious, conditions.*

*Research links vertebral subluxations caused by spinal trauma affecting the upper neck to maladies from Parkinson's disease to multiple sclerosis.*

How could an upper neck injury cause these conditions? Researchers theorize that vertebral subluxations set up virtual roadblocks within the neck and spinal column. These roadblocks may alter nerve function and sensation, which may affect every part of the body from the brain to the heart.

The good news is that vertebral subluxations are correctable through *chiropractic adjustments*, safe and gentle maneuvers employed by doctors of chiropractic.

Bottom line: Neck injuries affect more than just the neck. Spinal trauma accidents occur in just seconds, yet chiropractors, such as Dr. Terai, know that uncorrected vertebral subluxations may last for years, causing enduring pain and disability.

Dr. Terai urges you to read on if you or anyone you know has endured any accident — even a simple fall or a low-impact vehicle collision.

### Parkinson's Disease & MS

Multiple sclerosis (MS) and Parkinson's disease (PD) are two degenerative diseases for which there are no cures.

MS is a chronic autoimmune disease marked by muscular weakness, loss of coordination and speech and visual

problems. PD is a central nervous system disorder characterized by tremors and slowed movement.

Research shows that spinal trauma may trigger and worsen MS and PD symptoms. In one study, investigators at Glasgow University, in Scotland, studied 39 MS subjects who suffered a neck injury. They found that the disease was "precipitated or exacerbated" by the cervical cord trauma, which "may aggravate latent [hidden] clinical symptoms in MS." (*Eur J Neurol* 2003;10:109-10.)

Fortunately, initial research shows that chiropractic adjustments help reduce symptoms for both MS and PD patients who've sustained neck injuries.

In a five-year study, Erin L. Elster, D.C., followed 44 MS and 37 PD patients whose tests revealed "trauma-induced" vertebral subluxations in the upper cervical region of the spine (upper neck).

Of the 81 MS and PD patients, 78 recalled experiencing at least one head or neck trauma prior to developing the disease. Patients reported auto collisions (39 subjects); sport accidents, such as skiing, horseback riding, cycling and football (29); or falls on icy sidewalks or down stairs (16).

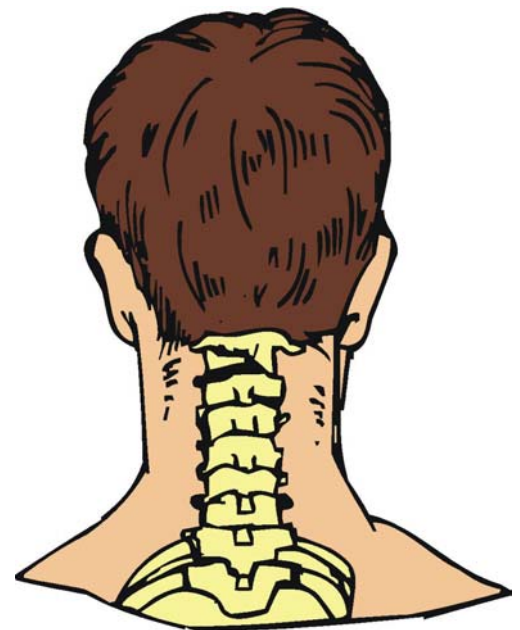
For 91 percent (40 of 44) of MS pa-

tients and 92 percent (34 of 37) of PD cases, chiropractic care designed specifically to correct upper cervical (neck) injuries significantly reduced symptoms and halted the disease's progression.

Dr. Elster summarizes that "a causal link between trauma-induced upper cervical injury and disease onset for both MS and PD appears to exist." Chiropractic techniques specifically for upper cervical spine injuries "may arrest and reverse the progression of both MS and PD." (*J Verteb Sublux Res* 2004;1-9.)

### Alzheimer's Disease

Brain traumas are common with severe upper neck injuries. Why? The brain stem begins at the junction of the neck, so any traumatic event to the upper cervical spine often results in some brain trauma.



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Studies show that brain injuries — even early in life — may predispose individuals to develop the mind-robbing condition Alzheimer's disease (AD).

Dr. Richard Havlik and researchers from the National Institute on Aging, Md., and Duke University Medical Center, N.C., studied 1,776 World War II veterans. Of the group, 548 had suffered a head injury. The remaining 1,228 without head injuries formed a control group. Researchers assessed the subjects' mental abilities via interviews with the veterans or family members.

The severity of the head injury directly determined the risks of developing AD or other dementias. Risks doubled with moderate head injuries. Subjects with severe head injuries had four times greater risks, compared with controls (*FDA Consumer magazine* 2001;35:1).

What's the AD-brain injury connection? One theory explaining the AD-injury risk lies in an enzyme in the blood called thrombin, which has been found in plaques of AD patients' brains. Brain injuries, in which neurons are exposed to high levels of thrombin, significantly increase AD risks.

In one experiment, researchers trained rats to navigate a complex maze, which required memory skills to complete successfully. The rats were then injected with 25 or 100 nm of thrombin for 28 days.

Rodents receiving higher thrombin doses suffered significant cognitive impairments. They encountered significant memory lapses that made negotiating the maze difficult and time consuming.

## Depression

Researchers also link neck injuries to emotional depression.

At the University Clinics, Basel, Switzerland, researchers examined 21 patients with acute neck whiplash injuries within two weeks of their acci-

dents. Close to 50 percent of both male and female subjects rated depression as one of the three chief complaints shortly after their neck trauma.

The other two top symptoms were concentration problems and sleep deficits — symptoms that are often linked to depression. Three months after the injury, 12 patients still showed attention deficits, and eight patients continued to suffer from concentration lapses (*J Neurol Neurosurg Psychiatry* 1993;56:1328-9).

The researchers summarized that the high levels of thrombin damaged or destroyed nerve tissue and caused cognitive deficits. They concluded this implies "that inhibition of thrombin may be a treatment strategy for AD- or head trauma-associated cognitive deficits." (*Neurobiol Aging* 2004;25:783.)

## Migraines, Emotional Problems, Neck Pain & Backache

One study investigated a male patient who endured a head injury while pole-vaulting at a high school track meet when he was 17.

For six years, he suffered migraines, neck and back pain and neurological problems like bipolar disorder, seizures and sleep disorders.

Six years after the accident, at age 23, a chiropractic examination revealed a vertebral subluxation stemming from the upper neck. He received chiropractic care specifically designed to correct and stabilize his upper neck injury. The patient's neurologist performed tests at the onset of care and after two and four months.

The result? "After 1 month of care, the patient reported an absence of seizures and manic episodes and improved sleep patterns. After 4 months of care, seizures and manic episodes remained absent and migraine headaches were reduced from 3 per week to 2 per month. After 7 months of care, the patient reported the complete absence of symptoms. Eighteen months later, the patient remains asymptomatic [symptom-free]."

The researchers summarize that "the onset of the symptoms following the patient's accident, the immediate reduction in symptoms correlating with the initiation of care, and the complete absence of all symptoms within 7 months of care suggest a link between the patient's headfirst fall, the upper cervical [neck] subluxation, and his neurological conditions." (*J Manipulative Physiol Ther* 2004;27:E5.)

## Osteoarthritis

Studies show that the trauma caused by spinal injuries speeds up the degenerative process of osteoarthritis. In addition, research indicates that osteoarthritis increases incidences of falls causing fractures.

In a study performed in the Netherlands, researchers examined 2,773 subjects with knee osteoarthritis. Researchers first adjusted for or ruled out "confounding factors," such as stability and bone mineral density (mineral content of bone). They found that osteoarthritis sufferers had much higher risks for fractures than healthy individuals, regardless of steadiness and bone mineral density (*J Arthritis Rheum* 2003;49:648-57).

## Path of Prevention

If you've sustained any type of accident — from mild to traumatic — contact your doctor of chiropractic for a complete spinal evaluation.

If you're currently in pain, your symptoms could be related to undetected vertebral subluxations, which can be easily corrected. Even if you feel you've escaped the trauma symptom-free, scheduling an appointment with the doctor will ensure that your neck and spine are in working order to avoid future problems.

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