

# OPTIMAL HEALTH UNIVERSITY™

Presented by Katie Gravesen, DC

## Whiplash Injury Myths and Truths

*As a doctor of chiropractic, Dr. Gravesen is concerned about the misconceptions that surround whiplash injuries.*

*For instance, did you know that a car's speed of impact does not predict the risk of whiplash injury? Any accident, even a minor fender bender, can cause serious conditions. And, are you aware that pain might not surface until years after a whiplash accident?*



So, if not the speed of impact, what predicts the extent of injury? Dr. Gravesen finds that a patient's posture during a collision plays a role. A study conducted at the University of Alberta confirms this.

Specifically, patients who have their heads turned to one side during a low-speed motor vehicle accident are less likely to develop whiplash.

Researchers measured how six different neck muscles responded to low-velocity impacts from eight opposing directions. They found that injury risks decreased when the 20 volunteers had their heads turned either to the right or the left during the impact.

"The act of turning the head tenses the muscles, which prevents movement of the neck and decreases the chances of soft tissue injury," explained study author Dr. Shrawan Kumar (*Clin Biomech* 2004;19:899-905).

Dr. Gravesen is certainly not suggesting, of course, that patients turn their

heads to one side before a collision, since taking your eyes from the road will increase an accident's chances of additional harm.

### Present Pain, Past Injury

With back and neck pain, many patients ask, "What happened **today** to cause this pain?" Patients assume that past events, such as a whiplash injury, are irrelevant to current pain. But Dr. Gravesen points out that nothing could be further from the truth.

Pain can develop months or years after any accident — even a minor one. Scientific studies show that a condition called "delayed onset whiplash associated disorder," or DOWAD, is a common instigator of neck, head and shoulder pain.

Why does pain often surface later on? One explanation is that whiplash injuries cause subtle **vertebral subluxations**, a condition in which spinal bones (vertebrae) become misaligned. Vertebral subluxations restrict motion and may affect nervous system activity. If left unchecked, these small and often unnoticeable spinal changes can worsen over the years, delaying injury, increasing pain and setting the stage for a myriad of health challenges.

That's why doctors of chiropractic take a proactive approach to whiplash — one that works to solve the root problem before pain develops.

Through **chiropractic adjustments** — specialized and gentle maneuvers — doctors of chiropractic correct vertebral subluxations. Detecting and caring for vertebral subluxations soon after a whiplash injury dramatically decreases the risk of immediate and future problems.

A study in Finland confirms the prolonged effects of DOWAD. Whiplash sufferers were examined three years after their accidents. More than 11 percent reported that injury symptoms had significantly deteriorated their health.

Neck pain was the most common problem, reported by approximately 15 percent of those studied. A remarkable 10 percent to 17 percent of respondents still used health services regularly to treat their symptoms. Some participants even reported that their health was worse three years after the injury than just one year later — indicating that, if left unchecked, whiplash and the vertebral subluxations associated with it will wreak havoc over time.

"These findings illuminate the importance of early recognition of risk factors for long-term disability and the primary treatment and rehabilitation procedures," conclude the researchers (*Eur Spine J* 2004;13:415-8).



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## Whiplash's Other Effects — Beyond the Neck & Spine

Alarming, whiplash can cause more than just musculoskeletal problems. Cognitive, emotional and nervous system problems may also stem from whiplash injury.

### Cognitive Problems

Doctors of chiropractic wholeheartedly acknowledge the mind-body connection and have always recognized DOWAD's link to cognitive and emotional problems.

One inquiry, performed in Sweden, included 30 patients with chronic whiplash-associated disorder (WAD) and 30 healthy "control" volunteers. Each participant completed four cognitive tests. Two types of cognitive tasks tested reaction time and memory, while the other two assessments measured processing of verbal vs. spatial information.

Before and after testing, subjects rated their pain level. Compared with healthy individuals, patients with WAD performed much poorer on all tests — especially on assessments measuring memory and verbal reaction time.

WAD patients reported increased pain during all of the tests. Pain intensity directly predicted verbal reaction time: The more pain patients had, the more time they needed to answer verbal questions.

"The findings support the hypothesis that pain might be one important factor leading to cognitive impairment in patients with chronic WAD," the authors conclude (*Neuro Rehabilitation* 2003;18:307-15).

Correcting whiplash injuries fast is vital to health and mental clarity. Doctors of chiropractic view the pain as the body's "last ditch" attempt at signaling distress. Visiting the chiropractor soon after any whiplash accident to eliminate vertebral subluxations will help prevent minor pain from swiftly becoming major. And, if you have ever been involved in a motor vehicle collision, even one that occurred years ago, it's vital to schedule a chiropractic evaluation in order to ward off any stealthy degeneration.

### Posture & Nervous System Problems

Chiropractors know that, because it triggers vertebral subluxations, whiplash may not just torment the back and neck, but may eventually plague the whole body.

That's why the doctor wasn't surprised by research suggesting that whiplash injuries disturb posture and balance, which may indicate a problem in the central nervous system.

Scientists in Sweden examined nine patients with work-related chronic neck pain, nine patients with chronic WAD and 16 healthy volunteers. To assess posture, all subjects performed standing tests, such as balancing on one foot and standing with eyes closed.

Patients with chronic neck pain, in particular those with WAD, had worse posture and more trouble balancing, compared with healthy controls (*J Rehabilitative Medicine* 2003;35:229-35).

Fortunately, doctors of chiropractic excel at correcting vertebral subluxations and related posture and balance problems, downsizing WAD's ability to harm.

### Chiropractic Care Works

According to a report in the *Journal of Orthopaedic Medicine*, chiropractic is "the only proven effective treatment" for chronic whiplash injury. Investigators pooled data from telephone interviews of 93 (68 female and 25 male) chiropractic patients with chronic whiplash.

Patients were divided into three groups. Group one suffered neck pain and restricted range of motion. Group two demonstrated nervous system problems. Group three reported severe neck pain and an "unusual complex of symptoms," such as blackouts, visual disturbances, nausea and chest pain.

Each participant received an average of 19 chiropractic adjustments over approximately four months. Altogether, 74 percent of patients improved following chiropractic care.

Specifically, 72 percent of group one, 94 percent of group two and 27 percent of group three benefited from

chiropractic adjustments. Even better, 24 percent of group one and 38 percent of group two became symptom-free following chiropractic care (*J Orthopaedic Medicine* 1999;21:22-5).

### A Powerful, Multifaceted Approach

In addition to the success of chiropractic adjustments, another reason why chiropractic care may be so helpful lies in its multifaceted, drug-free approach.

Researchers from the University of Alberta surveyed 362 practitioners and 88 chiropractors about how to effectively manage whiplash.

The scientists found that, compared with chiropractors, "physicians are more likely to have negative feelings about treating patients who have whiplash, were more likely to believe there was nothing physically wrong with many patients with chronic whiplash, and agree that nonsteroidal anti-inflammatory drugs and muscle relaxants are effective in acute whiplash."

On the other hand, the chiropractors were more apt to acknowledge chronic whiplash as a genuine problem for patients and try effective, all-natural, multifaceted solutions, including chiropractic adjustments, traction, nerve stimulation, muscle work and other all-natural solutions (*Spine* 2004;29:2173-7).

### Get the Word Out

Please feel free to share this week's **Optimal Health University**<sup>®</sup> with anyone you know who has been in an accident, even one that seemed trivial. Waiting until pain develops to seek out chiropractic care is unnecessary. Although the collision may have been unavoidable, you can steer clear of the pain.

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