

# FENDER-BENDERS and WHIPLASH

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With the icy road conditions this winter we can expect to see many fender-bender accidents around town. Some of our readers will no doubt be involved in these so-called “minor” accidents. Most of these will be rear-end collisions. The most common injury sustained in rear-end collisions is Cervical Acceleration / Deceleration (CAD) injury more commonly known as “whiplash”. Whiplash is a descriptive term for the motion the head and neck go through during the accident, whipping backwards and forwards with a sharp snapping action like that of the end of a bull-whip.

Neck pain is just one of the symptoms of whiplash. Arm and hand pain or tingling and numbness, pain between the shoulder blades, low back pain, headaches, TMJ pain (jaw pain), difficulty concentrating, vision disturbance, and ringing in the ears are all common symptoms of whiplash.

Although whiplash injuries are considered minor injuries by the medical profession (no bleeding or broken bones), they can be quite debilitating with long term consequences. There are approximately three million whiplash injuries each year. About 59% (1.7 million people) will not fully recover and 10% (300,000 people) will be permanently disabled.

About half of all whiplash injuries occur between speeds of 6-12 mph<sup>i</sup>. Most modern vehicles can sustain 10 –12 mph impacts with little or no visible damage. In recent crash tests conducted by the Spine Research Institute of San Diego, a Honda Accord was rear-ended at 16 mph with no visible damage. According to insurance industry logic, if there is no car damage, there can be no injury. Nothing could be further from the truth. Recent rear-end crash studies using live volunteers found the threshold for whiplash injury was 3-5 mph<sup>ii, 3</sup>. This demonstrates, much to the insurance industry’s dismay, that you can indeed be injured without vehicle damage. These low-speed rear-end injury accidents with little or no vehicle damage are known as LOSRIC (Low Speed Rear-end Injury Collision).

LOSRIC became a wide spread problem after the insurance industry lobbied congress in the 1970’s for 5 mph bumpers (bumpers that must prevent vehicle damage in collisions up to 5 mph). At that time, cars were receiving thousands of dollars worth of damage in minor parking lot crashes. However, people were not being injured because the crumpling metal of the vehicles was absorbing all the energy of the collision. With the advent of the 5-mph bumper, insurance companies were paying out less for vehicle damage, but people were being injured at an alarming rate in low speed collisions. The energy from the crash was being absorbed by the bumpers and then was rebounded in the form of acceleration to the struck vehicle. This acceleration is what causes whiplash.

Whiplash causes tearing of the muscles and ligaments of the neck and compression and tearing of the joints and discs of the neck<sup>iii</sup>. Interestingly, the muscles are the least injured structures of the neck and heal with a fairly high resiliency, but muscle pain is usually the prime complaint of whiplash victims. This is due primarily to referred pain from the joints and discs of the neck. That is pain, which is actually caused by the injury to the joints and discs, but is felt by the victim as pain in the muscles<sup>iv</sup>. The victim usually seeks treatment for the muscle pain such as massage or physical therapy. Since these treatments are aimed at the sight of the pain and not the cause of the pain they are usually ineffective as cures for long term results. The treatment of choice for whiplash injuries is chiropractic since it focuses treatment on the real cause of the pain, which is the joints and discs. Chiropractic treatment of whiplash injuries has greater than 93% success rate<sup>v</sup>.

**Treatment of whiplash injuries can last from weeks to years depending on the severity of injury and complicating factors such as:**

**Age:** People become less flexible as they age which causes more injury from whiplash. This is one reason children are only 2/3 as likely to be injured in rear-end collisions as adults<sup>vi</sup>.

**Gender:** Women are more likely to have whiplash injury than men due to less muscle mass around the neck and shoulders.

**Height:** Tall people whose heads are above the top of the seat and headrest are more likely to be more severely injured because there is nothing to stop their heads and necks from being whipped backwards. Conversely, short people whose heads are below the top of the seat back are less likely to be injured. This is another factor why children are not injured as often as adults<sup>vii</sup>.

**History of prior neck injury:** People with a history of neck injury are usually more severely injured in whiplash because of pre-existing compromise of spinal structures.

**Head turned at time of impact:** Having the head turned to either side causes narrowing of the openings where nerves exit the spinal canal and usually results in pinching and bruising injury to the nerves.

**Position in vehicle:** Front seat passengers are injured more often and more severely than rear seat passengers because the front seats flex more allowing greater rebound acceleration to the passengers neck.

Many of the patients I see in my practice come to me after car accidents. However, they usually don't

come to my office until several weeks after their accident because they thought their symptoms would go away. Unfortunately, by the time I see them their neck is so inflamed they can't turn their head at all and their injured tissues (muscles, ligaments, discs, and joints) have already started to heal in the wrong alignment.

These people, who delay seeking treatment, take considerably longer to heal from their whiplash than people who seek chiropractic care soon after their accident. If whiplash injury is left untreated, there is a 90% chance that the symptoms will become chronic<sup>viii</sup>.

Therefore, if you are ever involved in a car accident you should see your chiropractor shortly afterwards. Even if you don't think you are injured, you should be examined to make sure there are no hidden injuries. Don't forget to have your children also examined if they were involved in the accident.

### **Drive Safely and watch out for the other guy!**

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