

## **Trauma and Whiplash: What You Don't Know May Make Sicken You**

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### **Rehabilitating Whiplash**

Whiplash has a bad rap. Many people who haven't experienced whiplash think it's a joke, but whiplash is serious. Even minor fender benders can produce 5 to 10 Gs, more than enough force to cause temporary loss of consciousness; damage nerves, blood vessels, and internal organs; bruise the brain; jam the cranial bones and sacrum; and basically turn your life upside down.

Whiplash consists of rapid acceleration followed by rapid deceleration. During acceleration, forces propagate upward through the body, compressing internal organs, the brain, spine, and supporting structures. In deceleration, forces propagate downwards, tensioning everything. High-speed collisions can produce 100Gs of force, many times more than enough to kill you.

Research with live pigs (pig and human anatomy are quite similar) shows that the forces generated in low speed collisions produce strains, tears, and spasms in denser structures like the brain, heart, liver, spleen, kidneys, nerves, and blood vessels. High speed crashes are enough to explode the brain, literally. With humans, even low speed, seemingly minimal impact fender benders can result in symptoms that would at first appear grossly out of proportion to the force of the collision. The physics of the collision and body position at the time of impact play an important role in determining severity of damage. Usually, the severity of the symptoms is usually not psychosomatic, as is often suggested. Instead, preexisting restrictions from earlier trauma; stress, and/or emotional issues make the person more vulnerable and the consequences of a given accident more severe.

### **Understanding Shock and Delayed Onset**

One immediate effect of collisions is shock, which protects us and enables us to get out of harms way, to retreat to fight another day. A special kind of shock accompanies whiplash, cervical shock. Much of the whiplash force focuses on the upper cervical spine and the cranial base, wherein reside neurological structures related to basic life support. Cervical shock overrides pain signals and helps us survive. So far, so good.

Unfortunately, as long as we are in cervical shock, we may not realize that we have whiplash. Since this shock can persist for months, the victim is often among the last to realize that there is whiplash. For example, my brother recently told me that it was two years before he and his wife realized they had whiplash following a T-bone collision. Insurance companies frequently exploit this situation by offering a relatively small but, to some, seemingly generous check before the claimant has any inkling of what is in store. Don't cash it until you are absolutely sure you have no whiplash, at least six months after the accident! Once you cash one of those pain, suffering inconvenience checks, you've forfeited your ability to submit further claims, often leaving yourself holding the bag for many thousands of dollars of therapy.

In addition to cervical shock, the body's inherent ability to compensate for injuries and restrictions may conceal trauma and whiplash for months, even years. Essentially, the body recruits muscles, bones, even internal organs to fashion an internal splint that will minimize the effect of a restriction on more important structures, thereby staving off more serious illness. Over time, this compensation requires ever more energy and involves more and more of the body. As compensatory ability becomes exhausted symptoms begin to appear. With young and healthy low-mileage people, the full effects of trauma and whiplash may not become apparent for years.

Sometimes the onset of symptoms is so gradual that the patient is hard-pressed to say exactly when they started. On the other hand, with a person whose compensatory abilities are nearly exhausted, even a minor trauma may produce dramatic symptoms almost immediately. As mentioned before, these will often seem far in excess relative to the triggering event. This explains how a minor fender bender can turn someone's life upside down.

For example, as a young girl, a woman was thrown from her horse several times. Each fall constituted a minor whiplash and added to the residua in her body from the previous falls. But thanks to her youth and resilience, she was always able to shake off the impact. With all the distractions of adolescence, she wasn't aware that her neck and shoulders were gradually tightening and her chest was no longer able to inflate fully. In her 20s, her neck would "go out" several times a year but, after a few days, the problem always went away. As a thirty year old, this woman was rear-ended. Damage to her car was minimal, but her neck and shoulders seized up overnight, and she began to suffer chronic headaches. Six months later, her neck and shoulder muscles were rock-hard, and she found herself clenching her jaw and grinding her teeth at night. To top it off, her previously sunny disposition had been replaced by alternating and uncontrollable anger and depression. These symptoms arose as her body's ability to compensate was exhausted.

## **Laundry List**

Typically, trauma and whiplash will bruise kidneys, significantly restrict the liver, jam the lumbar-sacral junction, sacroiliac joints, occipital-atlas joint, and sphenobasilar junction. Kidney issues will have a dramatic impact on energy. The liver restrictions impede metabolism and likely result in weight gain. And the osseous restrictions will impair the function of the central nervous system and endocrine system. Furthermore, untreated, the liver and osseous restrictions often produce depression. Rather than being psychosomatic, the depression that so often follows major trauma and whiplash is in fact normal.

## **Symptomatic Treatment Doesn't Cut It**

Traditionally, treatment for whiplash has focused on relieving the chronic muscle tension, pain, and spinal imbalances. Unfortunately, such symptomatic approaches defeat the body's protective and healing strategies, slowing recovery. Even worse, symptomatic approaches can irritate or even

damage deeper structures such as nerves and blood vessels and internal organs, precisely when they can least afford it, thus doing more harm than good.

For example, the fender-bender described above may have put the wall of one of the vertebral arteries into spasm, drastically reducing that artery's ability to deliver blood to the cerebellum and other vital structures. (To better understand the significance of this, please look at Vascular Insufficiency in Readings. To maintain as much flow as possible, the body will go into all sorts of contortions, tightening various muscles and relaxing others. Some of the force could also go into one or more of the many nerves in the neck, leaving it overstretched, so that it fires more than it should, creating havoc within the nervous system and elsewhere. Again the body will undertake more contortions to minimize the strain on the nerve. Treating the contortions is not likely to help.

### **Treat the Trauma**

It's more effective to focus on the underlying problems first. Such an approach consists of finding and releasing the mechanical restrictions that the whiplash produced, releasing any stored mechanical or emotional energy, and restoring normal tissue tone and circulation. Since the trauma is likely concentrated in extremely delicate, sensitive structures like nerves, blood vessels, internal organs, and the brain and its structures, advanced, gentle manual skills are required, or else damage may be done. In addition, to be most effective, the therapist must also be able to help patients deal with associated emotions as they arise. Obviously, the best strategy is to not wait for the big upset or the onset of symptoms, but to clean house of all the traumas that you've collected over the years. Doing this and getting regular work will not only optimize your health it may also keep you from having a major accident down the road.

Once the force trapped in the body has been released, healing should proceed rapidly. Many of the symptoms will begin to resolve on their own, and now chiropractic adjustments and massages will hold for weeks and months, instead of hours and days and exercise regimes will be less likely to create additional pain and injuries.

### **Document, Document, Document!**

Make no mistake, whiplash is nothing to trifle with. If you've been in a car accident, had a hard fall, or major blow to the head or body, get fully checked out by a physician. Once the initial acute phase is passed—usually three to four weeks, find a practitioner capable of safely releasing the trauma from your body.

Some people believe that there are no accidents, only collisions—in other words, that accidents occur for a reason. It's impossible to say for certain, but I do know that in the course of treating trauma and whiplash, my patients and I often encounter and release earlier physical and emotional trauma. When we work through this older trauma, we often have a sense that the person is less likely to attract or experience trauma in the future. This is especially true for those people who

have experienced repeated accidents. In this sense, bodywork can be simultaneously both rehabilitative and preventive.

The purpose of bodywork is to release mechanical restrictions and restore compensatory slack so that vital systems like nerves, blood vessels, and internal organs can function as designed. Although only a few thousand providers nationally have these skills, Alaskans have a disproportionate number of them. One good place to find these practitioners is [www.iahp.com](http://www.iahp.com), an international directory of manual therapists.

*Reference: Trauma: An Osteopathic Approach, Jean Pierre Barral and Alain Crobier, Eastland Press, Seattle 1999.*