

# Beyond The Cab

The only safety management newsletter dedicated exclusively to addressing injury prevention and workers' compensation cost control for trucking companies.



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## Driver Back Injury Prevention

As implied by the newsletter title, "Beyond the Cab" the content routinely focuses the prevention of injuries that occur outside of the truck cab. After all it's the injuries that occur outside of the truck cab that account for the overwhelming majority of workers' compensation claims within the trucking industry. The topic of this month's newsletter however addresses a significant workers' compensation problem that begins while the driver is still in the cab... back injuries.

According to the Trucking Research Institute (TRI) 25% of all workers' comp claims submitted by truck drivers are back injuries. TRI also reported that back sprains and strains within the trucking industry are 14% more expensive than the average cost of all other type of injuries.

Although the topic of back injuries among drivers is a much broader topic than what is suggested in this brief article, at the crux of the issue are two back injury hazards that are present to some degree for all truck drivers, regardless of whether they fingerprint freight, handle tarps, or have no other responsibilities beyond driving. These two hazards are (1) being in a seated posture; and (2) being exposed to some level of whole body vibration. Either of these two factors alone represents a slight back injury hazard. However, when both of these hazards are present simultaneously, the level of hazard is increased exponentially.

### Seated Posture

In short, the seated position is an extreme posture for the back. While seated, the lower part of the back (the lumbar region) pushes toward the back of the seat, flattening the natural curve of the back.

This increases pressure on the inside of the disc and stretches-out the back of the discs (which is already the weakest part of the disc). These forces on the discs of the lumbar region leave the driver more vulnerable to other back injury hazards, such as those posed by stress-points, twisting and whole body vibration.

### Whole Body Vibration

Every object, including the human body, has a "resonant frequency." The vibration from the driving is often within the human body's resonant frequency range (4-5 Hz). We often don't hear much about whole body vibration even though drivers are exposed to it daily. The likely reason for this is that whole body vibration is normally not identified as the cause of back injuries. Instead, it works behind the scenes, weakening the back muscles and making the back more susceptible to injuries. In effect, whole body vibration stimulates bursts of back muscle activity repeatedly, which eventually causes the back muscles to become fatigued. With this in mind, remember that the back is in a vulnerable position while in a seated posture. Just one hour of whole body vibration while seated however, can cause back muscles to become fatigued enough to increase a driver's susceptibility to a back injury.

### Prevention

Unless you can think of a way for drivers to transport goods through the use of remote control trucks, you'll likely not be able to completely eliminate the "seated posture" nor the "whole body vibration" hazards discussed in this article. However that doesn't mean that your hands are tied. In fact, there are quite a few things that can be done toward preventing back injuries among truck drivers.



The most obvious step is to minimize the amount of lifting required of drivers. For example, if you give your drivers the option of taking the lumper pay and unloading the truck themselves, take away that option. Because he's in his truck driving 95% of his working hours, he is much more prone to back injury than a dock worker. The little money he can pocket from unloading the truck himself is no comparison to the back injury he is risking.

Next, train and encourage drivers to maintain a good posture while in their truck. They should use a lumbar support; avoid twisting or leaning; use their arm-rests; and adjust their seat so that they can depress the accelerator without moving their lower back off of the back of the seat. The seat back should be positioned approximately 20 degrees from vertical and should be slightly adjusted in either direction approximately every 30 minutes to alter the direction of vibration on the body.

If possible the seats should be air-ride equipped or should otherwise minimize the effects of vibration. Even if so equipped, drivers should be encouraged to use extra padding on their seat to absorb vibration.

Here's a few more... Instruct drivers to keep wallets and other bulky items out of their back pants pockets; to take frequent breaks, (at least 5 minutes every 2 hours); and to maintain a healthy body weight.

Lastly, because back muscles, discs and ligaments need some time to readjust after sitting for an extended period, repeatedly remind drivers to avoid lifting, pulling or pushing immediately after driving. It's at this point that the back is most prone to injury. Instead, drivers should be encouraged stretch and rest for a minute or two after exiting their truck.