



Seat Belts – The Long & Short of It.

I can guess what you're thinking, "Not another article about wearing a seatbelt!", right? Read on - not many articles tell you how a seatbelt works and the dynamics of a motor vehicle accident.

Bodies at rest will stay at rest until acted upon by an outside force. Sound familiar? In an accident, the force or energy of impact with another object is released. That outside force is the energy released by the impact and it acts upon the body to set it into motion. Simply put, the energy is transferred to the body and then to the seatbelt to be absorbed and dissipated. The body will not move to impact with the dash or windshield or steering wheel.

What happens during a 55 m.p.h. impact into an immovable object (such as a tree) and you're not belted in?

- (0.10 seconds) - At 1 tenth of a second after impact, the front bumper and chrome grill collapse sending slivers of steel penetrating the tree to a depth of 1.5 inches.
 - (0.20 seconds) - At 2 tenths of a second, the spinning rear wheels leave the ground as the hood crumples into the fracturing windshield. The heavier structural members of the car are absorbing the energy of the impact and start to move toward the point of impact. **The driver's unrestrained body moves forward at 20 times the normal force of gravity and has a weight of 3,200 pounds!** The knees break at the joints.
 - (0.30 seconds) - At 3 tenths of a second, the driver's body is now moving forward off the seat with the torso upright and the broken knees against the dash. The steering wheel is crumbling under the driver's adrenaline induced death grip. The head is near the visor with the chest rising above the steering column.
 - (0.40 seconds) - It is now 4 tenths of a second after the impact and the first 2 feet of the vehicle have been demolished, but the remainder of the vehicle continues to move toward the point of impact at 55 m.p.h. **The driver's body is still traveling toward the point of impact at 55 m.p.h.!** The engine block breaks loose and impacts the tree. The rear of the vehicle raises high enough to break off lower branches.
 - (0.50 seconds) - Five tenths of a second after impact, the driver's hands bend the steering wheel almost vertically. The driver is impaled on the steering column causing blunt force trauma or a puncture into the lungs. Blood begins to fill the chest cavity.
 - (0.60 seconds) - In 6 tenths of a second after impact, the driver's shoes are pulled off and the brake pedal deforms from the pressure exerted by the driver's foot. The entire vehicle body deforms toward the point of impact. The unrestrained driver's head strikes the windshield. As the energy released from the impact begins to dissipate, the rear of the vehicle begins its downward motion with the still spinning rear wheels digging into the ground.
 - (0.70 seconds) - It has now been 7 tenths of a second since the initial impact with the tree. The body of the vehicle continues to distort. The door hinges are torn off and the doors may fly from the crumpling vehicle body. The seat is pitched forward throwing the driver's body forward where it is pinned against the steering wheel and the seat.

All this has occurred in 7 tenths of a second. At this point, the driver will most likely die.

What would have happened had the driver had his seatbelt fastened? A small amount of travel of the seatbelt allows the energy released by the impact to be absorbed by the seatbelt rather than allowing it to be transferred to the driver's body.

Wear your seat belts, please. It's not only the Law, it can save your life.

2006 Dates:

January:

Plan Your Safety Training Now!
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February:

Child Passenger Safety Week

March:

Poison Prevention Week
Workplace Eye Safety Month
Save Your Vision Month

April:

Sports Eye Safety Month
Intl Building Safety Week
Work Zone Aware. Week
Playground Safety Week

May:

Clean Air Month
Melanoma Awareness Month
Electrical Safety Month
National EMS Week
Poison Prevention Week

June:

National Safety Month

July:

EYE INJURY PREV. MONTH

August:

Prepare Your Winter Safety Training!

September:

Farm Safety /Health Week

October:

Nat. Fire Prevention Week
Drive Safely Work Week
Radon Action Week

November:

Take advantage of the weather and do your classroom training!

December:

"3D Month" - National Drunk & Drugged Driving Prevention Month



OSHA Update - OSHA Issues Final Rule on Electrical Installation Standard

OSHA has published a final rule for an updated electrical installation standard.

"These are the first changes to the electrical installation requirements in 25 years, so it is important the standard reflects the most current practices and technologies in the industry," said Assistant Secretary for Occupational Safety and Health Edwin G. Foulke Jr. "The revised standard strengthens employee protections and adds consistency between OSHA's requirements and many state and local building codes which have adopted updated National Fire Protection Association (NFPA) and National Electrical Code provisions."

Changes to OSHA's general industry electrical installation standard focus on safety in the design and installation of electric equipment in the workplace. The updated standard includes a new alternative method for classifying and installing equipment in Class I hazardous locations, new requirements for ground-fault circuit interrupters, and new provisions on wiring for carnivals and similar installations.

The final rule updates the general industry electrical installation requirements to the 2000 edition of the NFPA 70E, which was used as the foundation of the revised standard. The final rule also replaces the reference to the 1971 National Electrical Code in the mandatory appendix to the powered platform standard with a reference to OSHA's electrical installation standard.

Heating Your Home Safely!

Now that the weather has started to warm up a bit, it would seem that a story about home heating would be inappropriate. Those of us that live here in the Midwest have a saying, "If you don't like the weather, wait fifteen minutes and it will change." So just in case the weather changes back to serious cold, here are some tips

If you plan to use a wood stove, fireplace, or space heater, be extremely careful. Follow the manufacturer's instructions as well as these safety tips:

- Store a multipurpose, dry chemical (ABC rated) fire extinguisher near the area to be heated.
- Do not burn paper in a fireplace.
- Ensure adequate ventilation by partially opening an interior door or window if you must use a kerosene heater.
- Use only the type of fuel your heater is designed to use—do not substitute.
- If your heater has a damaged electrical cord or produces sparks, don't use it and get it fixed.
- Use fireplaces, wood stoves, and other combustion heaters only if they are properly vented to the outside and do not leak flue gas into the indoor air space. Make sure chimneys and flues are cleaned annually.
- Do not place a space heater near things that may catch on fire, such as drapes, furniture, or bedding.

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Safety Resource Center

Did You Know?:

The Consumer Products Safety Commission (CPSC) has an available safety recall newsletter?

www.CPSC.gov

or

www.RECALLS.gov

Try it – we do!

www.CambridgeRiskControl.com

Jody, is it true?

"Some employees are asking to wear tennis (sport) shoes while they work. Why are they so unsafe?" Ty D., in SD

Most sport shoes/tennis shoes aren't designed for the majority of work environments. The biggest problem is that they're not designed to be safe during wet floor conditions and can contribute to slips, trips and falls.

Safety Information:

The Cambridge Risk Control website remains a great resource for your safety information needs.

This newsletter, safety handouts, safety videos as well as many other resources can be found at:

www.CambridgeRiskControl.com

Have you tried it ?