



Short Safety Subject

Short Safety Subjects are provided by the Public Safety Business Center, Fort Bragg, NC. Our intent is to provide safety topics for the purpose of increasing safety awareness and improving safety performance. Additional Short Safety Subjects are available on the PSBC Business Management Web Site at:

www.bragg.army.mil/psbc-bm/PubsAndForms/ShortSafetySubjects.htm

Traffic Safety

Children and Traffic Safety

Each year Fire Departments respond to thousands of emergencies involving pedestrians. Traffic related incidents account for more than one-third of the fatalities in children under 14 years of age. According to the Department of Transportation, more than 1,000 children die each year as pedestrians.

A common myth is that pedestrians ALWAYS have the right of way. Pedestrians have the right of way on sidewalks and designated pedestrian crossings with signals. Many pedestrian-vehicle incidents are the fault of the pedestrian. It is important for children and adults to learn safe pedestrian skills.

Knowing the correct way to walk near traffic and how to cross the street is vital to a person's health and well being. With adult supervision, a child's ability to deal with traffic can improve dramatically.

Several factors make children susceptible to car/pedestrian incidents. Among them, children:

- Have a lower profile in traffic
- Have a narrower field of view
- Cannot detect the direction of sound
- Cannot accurately judge the approach of vehicles
- Once in motion, like to stay in motion
- Mix fantasy with reality
- Often only concentrate on one thought at a time
- Are restless

The most common cause of pedestrian incidents involving children occur when they dash out into the street at mid-block, for example, to chase a ball, or when they run through an intersection.

Emergency vehicles respond to thousands of incidents involving cars, trucks, motorcycles and diesel trucks. Most of these involve collisions at the intersections of large surface streets.

Many children are injured or killed because they ride unrestrained in a vehicle. More than 75 percent of these incidents could have been prevented by the use of correctly worn seat belts or approved child safety seats.

More than 5,000 children die each year as passengers in vehicular crashes. In many cases, no safety belt was worn and the child was sitting on the front seat during a short trip. In some cases, a child was riding unrestrained in back of an open pickup truck bed or camper.

Children must understand the importance of seat belt use. In fact, it's the law! Putting on a seat belt should become a routine habit. While there are a variety of reasons why people don't use seat belts, most are based on misconceptions and fallacies.

We can expect to be in a car crash once every 10 years, and a serious one every 20 years. At some point in their life, 85 percent of the population will be involved in a serious car crash. The forces involved are horrendous. A 150

pound person exerts a force of more than two tons in a 30 mile per hour collision. Yet, seat belts can reduce injuries and medical costs by 50 percent.

Proper use of the seat belt and shoulder strap is important. When using a seat belt, make sure to hear the "click" when you buckle-up. The seat belt and shoulder strap should be positioned snugly across the hips and shoulders. A seat belt incorrectly positioned above the hips may result in serious injury to abdominal organs in an accident. Likewise, the shoulder strap should be placed directly over the shoulder. Otherwise, a neck injury may result during a collision. Finally, avoid excessive slack in the belt.

Children should never share the use of a seat belt and they should not take their seat belts off until the vehicle has come to a complete stop. They should never sit in anyone's lap in a moving vehicle. A child sitting in someone's lap is the single, most dangerous place to be in a crash. It is impossible to hold them in a collision.

Protective car seats should be used from the first time the child is in a car until they are big enough to use an adult seat belt properly. Age appropriate car seats and snug straps are available. It is important to follow the manufacturer's instructions for correct use. Infant safety seats are designed to face the rear of the vehicle.

Always check the seat to ensure that the harness and belt are snug and secure. If a vehicle is equipped with a passenger side air bag, place the infant safety seat rear-facing in the back seat of the car. Do not use infant seats in the front seat of vehicles with passenger side air bags. Some models of infant carriers convert to safety seats. Some carriers convert to infant safety seats while others convert to convertible safety seats. The convertible safety seats can be used from birth until the child weighs about 40 pounds. Make sure to follow manufacturer instructions, especially if they require a top tether strap to be secured. This strap should be secured to the rear seat belt when used in the front seat. If you do not plan to properly tether the strap every time you transport the child, don't purchase this type of seat.

For children weighing more than 20 pounds and who can sit up, toddler seats can be used. Some of these types also require a tether strap for complete security. As a child gets older, he can be placed in an approved booster seat, which is designed to fill the gap between a child seat and regular use of a seat belt. Make sure to use booster seats with upper torso support, either by using a lap and shoulder belt, or by using the body harness supplied by the manufacturer. Both toddler seats and booster seats can be placed in the front seat of vehicles equipped with air bags. Again, follow the manufacturer's instructions carefully when installing child safety seats. Arizona law requires the use of an approved child restraint seat until the child reaches 40 pounds or up to five years of age. The American Academy of Pediatrics recommends their use until the child reaches 60 pounds.

Adult seat belts should be used for children when they have outgrown their safety belts. The belt should be snug and should rest as low as possible on the child's hips. If the shoulder belt crosses the child's face or neck, it should be placed behind the child's back after the buckle has been fastened.

Facts and Figures

Each year 15,000 lives could be saved if everyone wore seat belts. At 30 miles per hour, an unrestrained passenger weighing 150 pounds exerts the force of more than two tons as it crashes against another object. This is enough to kill!

Only 61 percent of Americans always use their seat belts when they're driving in their car. Another 30 percent sometimes use the belts and nine percent never do.

Myths About Seat Belts

I don't need a seat belt when driving at slow speeds or on short trips.

All driving is dangerous. Fatalities have been recorded as slow as 12 miles per hour on nonbelted occupants. Most crashes occur at speeds less than 40 miles per hour. Of all crashes, 75 percent occur within 25 miles from home.

Seat belts are uncomfortable and too confining.

Seat belts are designed to allow motion around the vehicle. They provide plenty of freedom without compromising safety. They are designed to activate immediately should a car come to a sudden halt. After regular use, seatbelts are very comfortable.

If I wear a seat belt, I might get trapped in a burning car or caught in one underwater.

Less than one out of 200 traffic related incidents involve fire or water submersion. Even so, you're much more likely to be knocked out and rendered unconscious if you're not wearing a belt. Your chances of escape are better while wearing a seat belt.

I might be saved if I'm thrown clear of a car in a collision.

You are 25 times more likely to be killed in a crash when thrown from a vehicle. The force of an impact can throw you 150 feet...15 car lengths! Seat belts also prevent you from smashing your head into the windshield, which could cause spinal damage.

When I see a collision happening, I'll brace myself.

Crashes happen in the blink of an eye. It is impossible to prepare for crashes, and the forces generated are enormous.

I don't want to offend my passengers by telling them to buckle up.

Most people willingly put on seat belts if someone only reminds them.

Airbags

Airbags are passive restraint devices hidden in the steering wheel or dashboard of many cars manufactured today. A passive restraint device is one that operates automatically. In contrast, a seat belt is an active restraint device and must be connected to operate.

Airbags operate in the blink of an eye and do not obstruct driver visibility or reduce driver control. Several sensors are located in the bumper and front engine compartment of a vehicle. You cannot activate an airbag by beating the bumper with a sledge hammer. However, in a frontal crash, these sensors activate simultaneously. When activated, they expel a non-toxic nitrogen gas which fills a nylon bag. It inflates like a balloon to provide a cushion to passengers propelled forward by the force of an impact.

A common misconception is that one doesn't need to wear seat belts if they have an airbag. This is not true. They should be used in conjunction with lap and shoulder belts for maximum safety. Airbags are designed for frontal crashes, and activate by the sudden impact of 12 miles per hour or more. They do not provide optimum safety in side impact, rear impact, multiple impact or rollover crashes.

Although noisy during filling, they will not damage hearing. The nitrogen gas expelled is non-toxic and cannot cause harm. When the bag inflates, it can push a cigarette aside, but will not usually affect someone wearing eyeglasses. When deflated, a white powder will be seen. This is talc powder and non-toxic. Once an airbag has been activated, it cannot be used again and must be replaced. This will cost about \$350. Many insurance companies will cover this expense.

Auto Safety

Gasoline should be stored in tightly-capped and labeled safety cans that have flame arresters and pressure-relief valves - never in glass or plastic jugs.

If you must siphon gasoline, use a hand-operated pump - not your mouth.

Never store gasoline in the trunk of your car. The vapors can ignite and cause an explosion. Or, a rear end collision that could otherwise be minor could result in a tragedy.

If your car has a catalytic converter, don't drive through or park in areas of dry grass. The intense heat generated by catalytic converters can ignite these grasses.

Unless you are tuning your car, never run your car with the carburetor air-cleaner removed. The air-cleaner device functions as a flame arrestor in the event the engine backfires. If it is not in place, a backfire can easily ignite spilled gasoline or oil on the engine surfaces.

Never discard smoking materials out the window. Use your ashtray. Carry and maintain an approved fire extinguisher in your car. Know how to use it.

Driving Excellence

The following are the "Five P's" or basic principles for effective driving:

Perception - Perceive the complete picture of what is ahead by rotating your eyes 180 degrees, looking to the horizon and scanning from side to side. That way you will see what is developing before it becomes a problem.

Planning - Go through various driving situations in your mind and think through "escape route" options to prepare yourself beforehand for unexpected hazards.

Prevention - Practice defensive driving and be ready to adjust to the other person's mistakes. Give yourself time to react so that you can remove yourself from another driver's folly.

Publicity - Broadcast your driving intentions early enough so that other drivers have time to react to you. Make eye contact when possible. Avoid sudden movements and be as visible as the situation requires by using turn signals.

Proper - Proper attitude is very important in safe driving. Many collisions are caused by bad decisions influenced by anger, speed and frustration. When emotions run high, recognize and neutralize any tendency to forego safe driving practices.

Driving at Night

While only about one-third of all traffic-related incidents occur at night, more than half of the fatalities stem from night-time driving. In fact, based on miles driven, there are two and a half times more fatalities at night than during the day. This is because less light is available and vision is restricted. Night vision varies considerably among people. Older people generally cannot see well in the dark and eyestrain can substantially reduce night vision. Bright light, such as lightning or high-beam headlights, can cause temporary blindness at night.

Headlights on low beam illuminate the roadside for about 150 feet. On high beam, visibility will be 350 to 400 feet. At 55 miles per hour, it takes 4.5 seconds to cover 350 feet. For night driving, control speed so that your stopping range is within headlight range

To improve your visibility and the ability of others to see you, do the following:

Turn your headlights on at dusk, and leave them on until full daylight

Keep your headlights clean and properly aimed

Replace burned-out headlights immediately

Dim your high beams within 500 feet of an approaching vehicle or within 300 feet of a vehicle in front of you

Never stare into the high beams of another car; guide your vehicle by watching the right edge of the road

Do not flick your high beams up and down to remind another driver to dim his brights - it can blind him temporarily

Never use high beams when going into a curve

Keep your windshield clean, inside and out

Keep your instrument panels dim

Keep your eyes moving; avoid focusing on any one object

Keep a bottle of windshield or glass cleaner in the cab for mirrors and interior windshields

Keep your windows clean. Wiping the blades with club soda or carbonated water will significantly reduce streaking.

If the washing solution under your hood does not leave the glass clean after 10 wiper cycles, replace the blades and/or use a stronger concentration of washing fluid

Between 11 p.m. and 3 a.m., be particularly alert for drunk or drowsy drivers. If you notice another car with erratic speeds, weaving across lanes, or delayed starts at intersections, use extreme care in passing.

Driving in Bad Weather

Bad weather affects your ability to control your vehicle. Stopping on wet pavement takes approximately twice the distance as stopping on dry pavement. On ice or sleet, it takes you five times the distance to stop. Leave extra space between you and the vehicle in front of you in any kind of weather.

About six times more people are killed on wet roads than on snowy and icy roads combined, and when it starts to rain, the roads are the most slippery. When the road is wet, your vehicle "hydroplanes" - the front tires literally lift so that the vehicle is riding on a film of water rather than the actual pavement. Hydroplaning begins at speeds as low as 35 miles per hour if the tires are worn. Do the following when driving on wet roads:

Keep your mirrors cleared of water

Avoid sudden braking and sudden moves of the steering wheel

If you are about to go through a large standing pool of water, slow down and turn on your wipers before you hit the water. As you leave the water, tap the brake lightly a few times to dry it out. If the car pulls to one side, pump the brake slowly and smoothly to dry the brake out.

If you begin to hydroplane, hold the wheel steady, take your foot from the accelerator and gently pump the brake. If you turn the wheel from side to side to try and get down through the water, or if you jam on the brake, you probably will skid.

When visibility is poor, such as in dust storms, do the following:

Slow down but avoid decelerating suddenly

Watch the road ahead and behind carefully for other cars that are traveling slowly

Turn on your lights, regardless of the time of day, and use your wipers. Never use the high beam on your headlights. The reflection of the beams from the dust will actually reduce your visibility. Even if the lights do not improve your own visibility (as in daylight), they will make it possible for other motorists to see you better.

If you need to slow down, tap your brake pedal several times so that the flash of your brake lights will warn motorists behind you.

Animals in the Road

If you encounter an animal running into the road, do the following:

Gauge your reaction by the size of the animal and your vehicle speed.

Try to avoid the animal by slowing or swerving, but remember that it is better to hit a small animal (dog, cat, rabbit) than to risk losing control of the vehicle.

Hitting a large animal (horse, deer, cow) will have an impact equal to hitting another vehicle. Remove your foot from the accelerator, steer the vehicle in the opposite direction from the one in which the animal is running and be prepared for the animal to stop suddenly. Do not jam on the brake. Keep all steering wheel and brake motions smooth.

Be alert for children who may run after the animal.