

CHAPTER 1

Welcome to the American Safety Institute's 4-Hour Basic Driver Improvement course. You are about to begin reading Chapter 1. You can log on and off the program anytime you would like. If you want to log off and take a break just go to the bottom left corner of the page and hit the "Save Time & Go To Menu" button and this will save the time you have completed on this chapter. You must spend the required 50 minutes in this chapter. If you finish reading the materials before the timer reaches 0 minutes we just ask that you please be patient. This time is required by the Department of Highway Safety Motor Vehicles.

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AMERICAN SAFETY INSTITUTE

SAFE DRIVING PROGRAM

The following four hour interactive driving program is designed to help you, the driver, be more aware of road safety. You will explore the types and causes of collisions, the factors involved in safe driving, statistical information, and issues drivers can use to avoid potentially dangerous situations.

SECTION I

The first section of this program includes all of the elements of collisions. During this 50-minute portion of the program you will explore the factors involved in collisions, how to avoid collisions, and what to do if you are involved in a collision. You will also explore the way to handle many other types of roadside emergencies.

The Cost Of Collisions

A staggering 41,611 people in the United States died in motor vehicles in 1999. This is an average of over 110 people per day who lose their lives. Over two million people every year receive disabling injuries in traffic collisions. While these numbers are lower than the statistical data from 1975, each number still represents a family member or friend. If you were to think about it, you probably have been in contact with people who were directly affected by a fatal or near-fatal collision. This is why it is so important to understand the high cost of unsafe driving.

Another important consideration is the monetary cost. Taxpayers, like you, pay for the nearly 150 billion dollars in expenses created by collisions, including higher automobile and health insurance premiums, medical bills, taxes, and litigation costs.

It is estimated that motor vehicle crashes cost society an estimated \$4,800 per second. Four billion dollars a year go toward health care costs alone. Insurance rates escalate with the high number of crashes. The costs of Social Security and unemployment benefits are also passed on to the taxpayer and business owner. In fact, a large percentage of all social security disability recipients are collecting benefits due to car, truck and motorcycle injuries.

One of the greatest costs of collisions is the price the injured must pay. The increasing price of medical treatment, the value of lost wages, and the suffering experienced are but a few of the severe problems that the injured experience. This is why it is so important that all drivers be aware of the factors involved in vehicle crashes, which brings us to the next subject in this section.

Factors In Vehicle Crashes

In Florida alone, there were over 246,541 traffic crashes in 2000. That is an average of approximately 665 crashes per day. Sadly, 2,999 fatalities were a result of this. Being aware of the factors involved in crashes should be a concern of every driver.

Vehicle types concern many drivers these days. This is with good cause. With any automobile purchase, safety should be a priority. Many people are choosing sports utility vehicles over conventional passenger cars, believing there is safety with size. In 1998, fifty-four percent of all motor vehicle deaths were the occupants of passenger cars, however, twenty-three percent were occupants of other kinds of vehicles, including pickups, utility vehicles, and cargo/large vans. It should also be noted that deaths in pickups and utility vehicles have more than doubled since 1975.

Shopping for a Safer Car

If you are like most people shopping for a new car, safety ranks high among your purchase considerations. Every new passenger vehicle must meet federal standards specifying minimum safety levels, but this does not mean that all cars are equally safe. However, it is possible to shop for a safer car because some vehicle characteristics are

inherently safer than others, and many auto makers offer safety features beyond the required minimums.

Crashworthiness – The most important safety features are those that reduce the risk of death or serious injury when a crash occurs. This aspect of vehicle design is referred to as crashworthiness.

Vehicle structural design is the starting point for protecting you in a serious crash. A good structural design should have a strong occupant compartment, or safety cage, and front and rear ends designed to buckle and bend in serious crashes to absorb crash forces. It's important for these crush zones to keep damage away from the safety cage because once the safety cage begins to collapse, the likelihood of injury increases rapidly. If it is effectively designed, a longer crush zone lowers both the likelihood of damage to the occupant compartment and the crash forces inside it.

Not all vehicles are equally well designed. Some have crush zones that are too stiff and/or too short, and safety cages that aren't strong enough. These can contribute to the collapse of the occupant compartment in serious crashes. Differences in structural design among vehicles in the same weight class can be demonstrated.

Vehicle design and direction of impact are two factors that greatly influence the energy absorption in a collision. When speaking about different designed vehicles in a crash it is important to understand the compatibility of crush zone geometry, especially the heights of the main energy-absorbing elements. If a heavier vehicle's crush zone (i.e. a pick-up truck) energy absorbing structures are higher than a lighter vehicle's corresponding structures, both vehicles' crush zones would not absorb energy. One would override the other, diminishing effective energy absorption.

The direction of impact in a collision is also an important consideration. For instance: if one vehicle strikes the side of another vehicle, there is almost no crush space for the side-struck vehicle. In addition, the crush zones of the striking vehicle are stiffer than the door of the side-struck vehicle. This geometric mismatch problem can be severe if the main energy absorbing elements of the striking vehicles impact at the middle of the doors. This is likely with many utility vehicle and pick-ups, compared with the relatively strong sill area below the doors, more likely with passenger cars.

Vehicle size and weight are important characteristics that influence crashworthiness. The laws of physics dictate that, all else being equal, larger and heavier vehicles are safer than smaller and lighter ones. In relation to their numbers on the road, small cars are involved in more than twice as many occupant deaths each year as are large cars.

Size and weight are closely related. Large vehicles typically are heavy, while small ones are typically light. But these two characteristics don't influence crashworthiness the same way. Vehicle size can protect you in both single and two-vehicle collisions because larger vehicles usually have longer crush zones, which help prevent damage to the safety cage and lower the crash forces inside it. Vehicle weight protects you principally in two-

vehicle crashes. In a head-on crash, for example, the heavier vehicle drives the lighter one backwards, which decreases forces inside the heavy vehicle and increases forces in the lighter one. All heavy vehicles, even poorly designed ones, offer this advantage in two-vehicle collisions but may not offer good protection in single-vehicle crashes.

Speed may be the most important factor in collisions. Speeding, or “exceeding the posted speed limit or driving too fast for conditions” was a major contributing factor in the deaths of 12,628 Americans in 1998. In addition to the deaths, 606,000 people received minor injuries, 73,000 people acquired moderate injuries, and 40,000 received critical injuries with speed as a major cause. According to the National Highway Traffic Safety Administration (NHTSA), “speeding is one of the most prevalent reported Factors associated with crashes.” The NHTSA also estimates that speed-related crashes cost our society 28 billion dollars per year or \$54,964 per minute.

It is important to define unlawful speed or unsafe speed: Florida law states that: No person shall drive a vehicle on a highway at a speed greater than is reasonable and prudent under the conditions and having regard to the actual and potential hazards then existing. Speed shall be controlled as may be necessary to avoid colliding with any person, vehicle, or other conveyance or object. On all streets or highways, the maximum speed limit for all vehicles is 30 miles per hour in business or residence districts, and the maximum default speed is 55 miles per hour at any time at all other locations. However, with respect to a residential district, a county or municipality may set a maximum speed limit of 20 or 25 miles per hour on local streets.

The maximum speed limit on limited access highways is 70 mph.

The maximum allowable speed limit on any other highway which is outside an urban area which has at least four lanes divided by a median strip is 65 mph.

For all other roadways, speed is not to exceed a maximum limit of 60 mph.

The driver of every vehicle shall drive at an appropriately reduced speed when:

- * Approaching and crossing an intersection or railway grade crossing.
- * Approaching and going around a curve.
- * Approaching a hillcrest.
- * Traveling upon any narrow or winding roadway.
- * Any special hazard exists with respect to pedestrians or other traffic or by reason of weather or highway conditions.

Also, no person shall drive a motor vehicle at such a slow speed as to impede or block the normal and reasonable movement of traffic, except when reduced speed is necessary for safe operation or in compliance with law.

Construction /School Zones and Speed:

No driver of a vehicle shall exceed the posted maximum speed limit in a work zone area. Speeding fines double in a construction zone when workers are present. Always use extra care and reduce your speed in construction zones. Sudden lane changes, workers walking in the roadway, and construction equipment moving around require drivers to drive at the posted speed or at a speed safe for the conditions. School zones require a driver to be observant for children walking to school, riding bikes or even standing on the roadside waiting for a school bus. Children at play very often will unintentionally run into the roadway.

School zone speed limits are in force 30 minutes before school, during arrival, and 30 minutes after arrival. Speed limits are usually 15 mph but no more than 20 mph. Always look for signs and flashing lights near a school where a posted speed sign indicates the proper speed. Speeding fines double during this time.

Always adjust your speed around school and construction zones. These areas are especially dangerous due to the fact that lanes end, detours occur, there is often uneven pavement, and there are frequent stops by other vehicles. The biggest concern, however, is the unpredictable things that children do. The higher congestion of traffic in these areas demands patience on our part to ensure the safety of all people in these zones. Slow down and drive especially carefully. Imagine how you would feel if you were to hit or kill a child or construction worker.

Speed Influences Crashes in Four Basic Ways

- * Speed increases the distance a vehicle travels from the moment a driver detects an emergency until the driver reacts.
- * Speed increases the distance needed to stop a vehicle once an emergency is perceived.
- * Crash severity increases by the square of the speed, so that when speed increases from 40 to 60 MPH, speed goes up 50 percent while the energy released in a crash more than doubles.
- * Higher crash speeds reduce the ability of vehicle restraint systems and roadway hardware, such as guardrails, barriers, and impact attenuators, to protect occupants.

The higher the travel speed increases the risk of serious injury or death in a crash. Vehicles and their occupants in motion have kinetic energy that is dissipated in a crash.

The greater the energy that must be dissipated creates greater chances of severe injury or death. The laws of physics tell us that crash severity increases disproportionately with vehicle speed. A frontal impact at 35 mph, for example, is one third more violent than one at 30 mph.

Do higher travel speeds mean more deaths? Researchers have found, as emergency medical workers know all too well, that crash injuries consistently and dramatically increase with higher impact speeds. In 1987, many states raised speed limits to 65 MPH. In these states there have been 15 to 20 percent more fatalities on rural interstates each year than otherwise would be expected. This is an average of more than 400 lives lost in each of these states every year.

It is also important to consider the effect of impact force. In a high-speed crash, a passenger vehicle is subjected to forces so severe that the vehicle structure cannot withstand the force of the crash and thus cannot sufficiently protect occupants from serious injury. Likewise, the performances of restraint systems such as airbags and safety belts are compromised in high-speed crashes.

This is also true of roadside hardware and safety features such as barriers, crash cushions, and bridge rails, which are designed to reduce crash severity by absorbing crash energy or redirecting vehicles away from stationary roadside objects. Highway and road design standards accommodate a range of vehicle impacts, but they cannot provide adequate protection for people in vehicles traveling at very high speeds. Higher truck speeds bring additional problems, including increased tire tread wear, a raise in tire-weakening operation temperature, longer stopping distances, and increased brake wear.

In order for you to better visualize the meaning of the number on your speedometer, it might be helpful to think about the speed that your automobile is traveling in feet per second. To do this, simply multiply your speed in MPH by 1.5 (actually 1.466.) Here are several examples:

$$40 \text{ MPH} \times 1.5 = 60 \text{ FPS}$$

$$50 \text{ MPH} \times 1.5 = 75 \text{ FPS}$$

$$60 \text{ MPH} \times 1.5 = 90 \text{ FPS}$$

$$70 \text{ MPH} \times 1.5 = 105 \text{ FPS}$$

(MPH = miles per hour, FPS = feet per second) Another important aspect of speed-related crashes is closing speed, which is the combined speeds of two approaching vehicles. The greater the closing speed of two cars, the less time the individual driver has to react to a potentially hazardous situation. Take a look at the following diagram and related situations:

Two vehicles traveling 50 MPH approach each other on a two-lane road. Their closing speed is 100 MPH or 150 FPS. However, if the vehicles travel at 60 MPH, their closing speed would be 120 MPH or 180 FPS. If their speed increases to 70 MPH, their closing speeds would be 140 MPH or 210 FPS. This final number is the equivalent of a closing speed that covers a distance over two-thirds the length of a football field in one second. When speaking to people who have been in head-on collisions, it is easy to understand why they say, "It all happened in the blink of an eye."

Head-on collisions often occur when a driver is passing another vehicle and are the most dangerous kind of collisions. The majority of these collisions could have been prevented using defensive driving techniques. This type of collision will take all of your driving skills if you are to avoid it. You can increase your chances of avoiding a collision by following a few safe-driving tips:

- * Look as far as the next hill.
- * Flash headlights if someone is approaching you on the wrong side of the road.
- * Be prepared to drive off the road.

Safe off-road recover:

- * Steer gradually off the road.
- * Turn the steering wheel no more than 1/8 of a turn back toward the roadway.
- * Use gentle brake pressure.
- * Constantly observe the vehicle that has caused you to drive off the road and be prepared to adjust to its actions.

Age and gender of drivers are additional factors in highway collisions. In every motorized country, teenagers represent a major hazard on the roadways. However, the problem is worse in the United States than elsewhere. Until recently, most states have allowed teens to get full-privilege licenses at an earlier age than in most other countries.

Little driving experience has been required, and the licensing procedure has been inexpensive and rather easy. American teens also have quick and easy access to automobiles. As a result, our roadways are filled with young people who do not have the experience and maturity to understand and avoid potentially hazardous situations. Consequently, there is a greatly elevated crash risk among young drivers.

Teenagers drive less than all but the most elderly drivers. Their crash numbers and deaths, however, are disproportionately high for the amount of time spent driving. The risk of crash involvement per mile driven among drivers 16-19 years old is 4 times that of older drivers. Risk is highest at age 16-17. In fact, the crash rate per mile driven is almost 3 times as high among 16 year-olds as it is among 18-19 year olds. In 1999, 5,749 teenagers died in motor vehicle crashes.

Major Variables in Collisions

The driver, roadway conditions, and equipment are the three main variables that contribute to collisions. The driver influences safety more than any other factor: 90 percent of crashes occur because of driver error. Attitude can make the difference in many challenging driving situations. It is important to remember that while driving we come into contact with drivers of all ages and driving ability. In order to insure the safety of our passengers and ourselves, we must carefully observe the actions of other drivers. Asking yourself the following questions about the actions of other drivers can help make your driving experiences less dangerous:

- * What are the ages of the drivers around you?
- * Do other drivers make eye contact?
- * Do other drivers appear to be distracted? Are they talking, smoking, eating, reading, tending to children, talking on a cell phone, adjusting a radio or gazing at scenery?
- * Does the driver fail to yield right-of-way, obey signals, adjust speed or use the proper lane?
- * Notice vehicles with out-of-state license plates: these drivers may be unfamiliar with the area or unused to driving under local conditions.
- * Does the driver fail to signal or cancel a turn signal?
- * Does the driver tailgate or drive in blind spots?
- * Does the driver fail to use lights and horn appropriately?
- * What is the condition of the other vehicle? Does it have bald tires, broken windows, no mirrors?

To avoid possible collisions:

- * Use directional lights when turning or changing lanes. This allows other drivers to adjust to your speed and lane changes.
- * Reduce speed if you see brake lights or turn signals in front of you. This allows you more time to react.
- * Scan the road continuously for possible hazards. The observant driver often has the ability to avoid dangerous situations.
- * Keep your windshield clean and mirrors in proper adjustment.
- * Being able to see to the front and to the rear is paramount in safe driving.
- * Slow down at intersections and during bad weather.
- * Increase following distance in bad weather. This will allow you to react to panic reactions of other drivers and loss of traction.

Avoiding Rear-end Collisions

Many crashes happen because one vehicle runs into the back of another. Here are some things you can do to lower the risk of someone running into the rear of your vehicle:

- * Check your brake lights often to make sure they are clean and working properly.
- * Know what is going on behind you. Use your rearview mirrors.
- * Signal well in advance for turns, stops and lane changes.
- * Slow down gradually. Avoid any sudden actions.
- * Drive with the flow of traffic, within the speed limit. Driving too slowly can be as dangerous as driving too fast.
- * To avoid striking the vehicle in front of you, keep at least two seconds following distance.
- * When stopped in traffic, always leave enough room to the vehicle in front of you so you can turn and pull out of the lane to avoid being struck from the rear. If you can see the rear tires of a passenger vehicle in front of you, it is possible to safely turn out of the lane.

Second Collision

When a collision occurs, the vehicle rapidly decelerates while its structure absorbs the majority of the crash forces. Unbelted occupants continue to move forward at the vehicle's original speed until the car's interior (the steering wheel, instrument panel, windshield, etc) stops their movement. Belted occupants come to a more gradual stop by being secured to the vehicle's structure. This is known as the human collision.

Another form of human collision is the person-to-person impact. Unbelted occupants colliding with each other cause many serious injuries. In a crash, occupants tend to move toward the point of impact, not away from it. People in the front seat are often struck by unbelted rear seat passengers who have become high-speed projectiles.

Even after the occupant's body comes to a complete stop, the internal organs are still moving forward. Suddenly, these organs hit other organs or the skeletal system. This third collision is known as the internal collision and often causes serious or fatal injuries.

Airbags supplement the safety belt by reducing the likelihood that the occupant's head and upper torso will strike some part of the vehicle's interior. They also help reduce the risk of serious injury by distributing crash forces more evenly across the occupant's body.

Reaction Time

Reaction time is the time required to implement decisions made during the perception process (Perception/Reaction.) There may be multiple reactions such as reading signs, braking, steering, and the deceleration time required to bring the vehicle to a safe stop. The length of time this takes depends upon the complexity of the decision. Reaction time is sometimes difficult to measure. As a rule of thumb, a simple reaction (such as making a decision to stop when a traffic light changes) takes about 1.5 seconds. More complex decisions take about 2.5 seconds. Keep in mind that these reaction times are only the length of time it takes to begin making a correction in a vehicle: it takes much longer to actually stop an automobile.

It is important to keep in mind that deceleration rates and stopping distances vary with speed. A car traveling at 60 mph needs a great deal more time and space to slow and brake to a stop than the same car traveling at 30 mph. A vehicle's rate of deceleration also varies with weight. A truck, for example, takes much more time and distance to come to a stop.

Take a look at the following diagram and driving situation:

Vehicle A, traveling at 60 MPH, suddenly observes Vehicle B stalled in the roadway. If Driver A has a typical reaction time, he will travel about 225 feet. All that the driver has done is to move his foot to the brake or attempt to steer away from danger. The driver's

ability to react is complicated by the curve in the road, the speed of the large truck, and where to safely exit to the right if it becomes necessary. This would be considered a complex reaction.

Traffic Crashes - Your Responsibilities

* **Stop.** If you are in a crash while driving, you must stop. If anyone is hurt, you must get help. You must also be ready to give your name, address, and vehicle registration number; as well as to show your driver license to others involved in the crash.

* **Report the crash.** Drivers of vehicles involved in a crash resulting in bodily injury or death of any person or damage to any vehicle or other property in an apparent amount of at least \$500 shall immediately give notice of the crash to the local police department or Florida Highway Patrol. Said drivers must send a written report of such crash to the Department of Highway Safety and Motor Vehicles or the Traffic Records Center within 10 days of the crash. However, if an investigating officer has made a written report of the crash, no driver involved in the crash needs to submit a written report.

Any driver who does not report a crash or submit a written report as required commits a non-criminal traffic infraction, punishable as a non-moving violation.

* **Move your car if it is blocking traffic.** If your car is blocking the flow of traffic, you must move it. If you cannot move it yourself, you must get help or call a tow truck. This is true anytime your vehicle is blocking the flow of traffic whether it has been involved in a crash or not.

* **Appear in court.** If you are charged in a driving crash, you may have to go to court. The officer who comes to the scene of the crash will file charges against any driver who violated a traffic law. Anyone who is charged will have a chance to explain to the court what happened. The court will then decide what the penalty will be. Anyone who is not charged with violating the law may have to come to court as a witness.

* **Avoiding a crash.** We often hear drivers say when discussing a collision, "I had the right-of-way". Florida law states, "no one has the right-of-way". The law states only who must yield (give up) the right-of-way. Every driver and pedestrian must do everything possible to avoid a crash.

* **Inoperative traffic lights.** You often hear drivers say when approaching an inoperative traffic signal that they have the right-of-way. What the law states is that a driver approaching an inoperative traffic light will treat it as a stop sign. If only part of the light is not working, the driver approaching the inoperable part will stop.

Handling Emergencies

When you are driving, things can happen very quickly. You may have only a fraction of a second to make the right move. The following are common roadside emergencies and guidelines for handling them:

Breakdowns

If your vehicle has a breakdown while you are driving, park the disabled vehicle where it can be seen for 200 feet in each direction. Move the vehicle so that all four wheels are off the pavement. At this point, turn on your emergency flashers, and move all passengers out of the vehicle on the side away from traffic. You can tie a white cloth on the left door handle or antenna or raise the hood to alert others that you are in need of assistance. If possible, carry a cellular phone for these types of emergencies.

Tire Blowout

Having a tire blowout can be quite unnerving. Remain calm and do not use your brakes if this happens. Concentrate on steering your vehicle, and allow the vehicle to slow gradually. Brake softly when the car is under control, and then slowly pull completely off the pavement to replace the blown tire with the spare.

Wet Brakes

Always test your brakes lightly after driving through deep water. Brakes may pull to one side or they may not hold at all. You can dry the brakes by driving slowly in low gear and applying the brakes.

Right Wheels Off Pavement

If your right wheels fall off the edge of the road, take your foot off the gas pedal, and hold the wheel firmly. Steer in a straight line and then brake lightly. Wait until the road is clear. At this point, turn back on the pavement sharply and at a slow speed.

Car or Motorcycle Approaching in Your Lane:

Often, other vehicles may be approaching in your lane as they are passing. If this happens, sound your horn and brake sharply. Be prepared to steer for the side of the road or even the ditch.

Jammed Gas Pedal

If this occurs, keep your eyes on the road, and tap the gas pedal lightly. Try to pry the pedal up with the toe of your shoe. Shift into neutral and use your brakes. You may also

turn off the ignition, but do not turn the key to the lock position, as your steering wheel will lock.

Brake Failure

If your brakes fail, pump the brake pedal hard and fast. Shift into a lower gear to slow your vehicle. Apply the parking brake slowly, so you do not skid. Rub your tires on the curb to slow your vehicle, or pull off the road into an open space.

Skidding

In a skidding situation, take your foot off the gas pedal. If possible, do not use your brakes. Pump the brakes lightly if you are about to hit something. Steer the car into the direction of the skid to straighten the vehicle; then steer in the direction you wish to go.

This completes the reading for Chapter 1. The Department of Highway Safety Motor Vehicles requires that each chapter is 50 minutes. If you have finished reading the materials in this chapter please review any sections that you would like to read again or just be patient until your timer reaches 0 minutes. When your timer reaches 0 minutes please hit the button below that says "Save Time & Go To Menu" and this will allow you to continue with Chapter 2.

Chapter 2

CHAPTER 2

You are about to begin reading Chapter 2. You can log on and off the program anytime you would like. If you want to log off and take a break just go to the bottom left corner of the page and hit the "Save Time & Go To Menu" button and this will save the time you have completed on this chapter. You must spend the required 50 minutes in this chapter. If you finish reading the materials before the timer reaches 0 minutes we just ask that you please be patient. This time is required by the Department of Highway Safety Motor Vehicles.

During this 50-minute section of the program, you will explore the many types of driving situations that you will face in your every day life. Visibility, scanning techniques, distance guidelines and driving in environmental hazards will all be explored. This portion of the program also includes basic vehicle equipment and safety maintenance.

Vision and Visibility

Approximately 90 percent of the information necessary for us to make driving decisions comes to us through our eyes. Vision and visibility can greatly enhance roadway safety or critically impair our ability to make correct driving decisions. This is particularly challenging in city conditions where a driver encounters as many as 200 variables or situations per mile. Two of the most common driver complaints in collisions are “I never saw the car coming” and “I didn’t see the sign.” Many collisions can be avoided if the driver anticipates the situation and takes preventative action. In order to do this, however, the driver must first see the variables involved.

There are several factors that affect your ability to see potentially hazardous situations:

- * The ability to judge the speed of objects moving toward and/or across your field of view.
- * Being able to discriminate colors.
- * Judgment of distances or depth perception.
- * The ability to focus and to recover from the effects of glare. Wearing sunglasses, using your sun visor and keeping your windshield clean can reduce road glare.
- * The ability to detect objects in your periphery.

Scanning techniques, distance guidelines and adaptation to surroundings:

Navigating the roadways bombards the driver with a plethora of information to which he/she must make constant calculations and adjustments. One way to help insure safety on the drive is to develop good scanning techniques. By being aware of possible problems with other vehicles or pedestrians you will be more likely able to react in a manner to keep you and your vehicle out of harm’s way.

- * Scan ahead of your vehicle constantly. Try not to just stare down the lane in front of you. Notice the positions of the vehicles ahead of you. Determine if a car is about to change lanes or pull into your path of travel. Be prepared to slow or redirect your vehicle.
- * Scan to the rear of your vehicle using rear view mirrors. Notice the speed of the vehicles behind you, and monitor their position in relationship to you. Be aware of drivers who might be tailgating or preparing to pass.

* Scan your blind spots. These are zones in each vehicle that mirrors do not reflect. It is always possible that another vehicle might be riding directly beside your car without you knowing it.

Assessing and Adjusting the Space Around Your Car:

Having ample space around your car gives you time to observe, think, decide, and react to driving situations. By adjusting your car's position to maintain a safe margin of space, you can generally avoid the need to brake, accelerate, or swerve suddenly. A cushion of space also gives you room to steer in case of emergency.

Guidelines for maintaining space and distance:

* Adjust your following distance by leaving at least 2 to 3 seconds between your car and the one in front. Leave 4 to 5 seconds at speeds in excess of 40 mph or more, plus another 5 to 6 seconds if the road is slippery or if you are behind another vehicle that blocks your view.

* Try to keep a 2-second distance behind your car. Distance behind your car is the hardest to maintain because other vehicles may tailgate or follow too closely. If you are being tailgated, increase-do not decrease- the space between you and the car ahead.

* Whenever possible, try to keep as much as 8 feet on either side of you. The more room you have around your car, the more room you have to react to threatening situations.

* If there is insufficient space ahead, behind of or to the side of your car, take prompt action to increase the space.

The two-second rule is a convenient way to figure your safe following distance at various speeds without having to do calculations with numbers. Measure your following distance by choosing a landmark such as a tree. When the rear bumper of the vehicle in front of you passes that landmark, start counting seconds: "one thousand and one, one thousand and two." If you reach the landmark before you finish counting, you are following too closely. Slow your vehicle to allow for more distance, and then repeat the counting method.

Your ability to avoid a collision often comes down to the distance between you and the vehicle in front of you. When conditions are ideal and your speed is less than 40 MPH, maintain a minimum following distance of two seconds. When your speed is above 40 MPH or when conditions are adverse, increase your following distance by one to two seconds for each condition that may affect your stopping distance:

If

Add

You're traveling at more than 40 miles per hour

2 seconds

You're driving at night

1 second

The vehicle in front of you is a motorcycle

1 second

There is fog or poor visibility

1 second

The pavement is wet

1 second

You're being tailgated

2 seconds

If the tailgating vehicle is a tractor-trailer or bus

4 seconds

You're towing a trailer

2 seconds

Night Driving

Driving at dusk or after dark poses multiple problems for drivers. When you drive after dark, your chances of being involved in a fatal traffic collision are greatly increased. In 1999, sixty percent of nationwide roadside hazard deaths occurred between the hours of 6:00 P.M. and 6:00 A.M. Not only is it harder to see at night, but also the visual clutter created by many stationary and moving lights can be very confusing. There is an increased likelihood of optical illusions, spatial disorientation, and distortions of distance and motion.

Many drivers have extreme difficulties with night vision. This is a condition that affects people of all ages, but almost everyone has some loss of night vision as they age. One way you can help insure your safety and the safety of your passengers is to have your eyes examined by a professional. If you wear glasses, keep your prescription up-to-date and your glasses clean. In addition to spotless eyewear, it is also critical to keep the windows on your automobile clean. This greatly reduces glare and distortion from oncoming headlights.

Turning on your headlights when light levels are low is very important for safety. If you are wondering whether it is dark enough to turn on your lights, go ahead and do so. Even if you don't need your headlights to see, other drivers can see you better with them on. High beam lights can be used until you are within 500 feet of an oncoming car or within 300 feet of the rear of a car you are following. You are required to switch to low beams when you come within these distances.

Florida law requires that we turn on our headlights:

- * Any time from sunset to sunrise including the twilight hours. Twilight means the time between sunset and full night or full night and sunrise.
- * During any rain, smoke or fog.

Drivers also face the problem of being temporarily blinded by approaching vehicles with high beams. To avoid this, simply look to the right side of the road as a steering guide until the vehicle passes. It is not recommended to flash your high beams at the oncoming car.

Low beam lights should also be used in rainy, smoky, or foggy conditions. High beams in these situations only serve to excite the water or smoke particles suspended in the air in front of your vehicle.

Nighttime Driving Do's and Don'ts:

Do -

- * Make a mental adjustment when you drive late at night. Allow more time to get to your destination and know you can't drive as fast as during the day.
- * Recognize the signs of fatigue, which include eye fatigue and your car drifting into other lanes.
- * Be ready to brake for nighttime joggers or animals crossing the road.
- * Keep headlights clean and properly aimed.
- * Keep eyeglasses, windows and mirrors clean and in good shape.
- * Keep your vehicle in excellent working order, especially if driving at night.
- * Eat small light meals and take a break every hour when driving a long distance.
- * Be alert for impaired drivers.
- * Drive during the day if you have problems with your night vision. If you must drive at night, choose well-lit roads.
- * Have an annual eye exam.

Don't -

- * Use the light in the car while driving.
- * Wear sunglasses at night.
- * Focus your eyes on one fixed spot. Direct your vision over a triangular area - left, right, then center. Repeat this over and over.
- * Expect fatigue to be relieved by coffee: it can only be relieved by sleep.
- * Drink and drive.

Environmental Hazards:

Driving in the Rain

Road conditions are the cause of many collisions. Driving in the rain is especially challenging. More than 20 percent of reported crashes involve skidding. While most

drivers are cautious on icy or snow-covered roads, they frequently fail to adjust their speed when driving in rain. Also, few drivers notice early clues that they are about to lose directional control. When they do begin to skid, many drivers do not know proper braking or steering procedures. For instance, few drivers are aware they need a much greater stopping distance in rainy conditions. This additional stopping distance can vary by as much as 165 feet, from 125 feet on dry pavement to 290 feet on wet pavement at 50 mph. Always adjust your speed when roads are wet.

Driving on Wet Surfaces

Hydroplaning is when the tires of a vehicle have a layer of water between them and the road surface and begin to skim across this layer. Hydroplaning can result in the total loss of vehicle control. Even with properly inflated tires in good condition, a vehicle can hydroplane at 35 mph if water on the pavement reaches a depth of only one-twelfth of an inch.

Standing water on the pavement is always a risk factor for hydroplaning. A good indication of standing water is when raindrops bubble as they strike the road surface. To be safe, reduce your speed whenever you travel a wet road. In a hard, driving rain, keep your speed at or below 35 mph.

You should also be very cautious of attempting to drive through standing water, especially during flash-flooding conditions. A safe rule-of-thumb to use is “don’t drive through the water if you don’t know how deep it is.”

Steering and Braking on a Slippery Surface

* In order to steer your vehicle properly, sit in an upright, relaxed position and place your left hand between the 7 and 9 o'clock and your right hand between the 3 and 5 o'clock positions on the steering wheel. Grip the wheel with fingers and thumbs. Do not grip too firmly, because the palms of your hands are not as sensitive as your fingers.

* Look and steer in the direction you want to go, not at objects you want to miss. Avoid sudden moves or over-corrections.

* When braking on a slippery surface, keep your heel on the floor and apply steady pressure to the brake pedal with your toes. If your vehicle does not have anti-lock brakes (ABS) and starts to skid, ease up on the brake pedal while steering smoothly back to the desired path. Reapply brake pressure as needed. Vehicles with ABS will automatically adjust brake pressure if the wheels start to slide due to over-braking.

Wind

In inclement weather or very windy days, wind is a factor in how your vehicle will handle. Longer vehicles such as trucks, motor homes or travel trailers are especially

affected by high winds. Slow your speed, stay off narrow roadways and bridges, and if necessary, pull off the road in a safe place until conditions improve.

Leave extra space between your car and other vehicles (especially high-profile vehicles). Be aware that nature is not the only source of wind. When large vehicles speed past your car you will feel a blast of wind that can move your car. Try to maintain maximum distance from these vehicles and be prepared to react to the gusts of wind they create.

Fog or Smoke

Dense fog creates unique hazards. Sudden patches of thick fog may occur so suddenly that your field of vision is cut without warning. If the humidity is high enough, moisture can accumulate both inside and outside your windshield, further reducing your already limited visibility.

It is best not to drive in fog or smoke. If you must, slow down, turn on your low beam headlights, and be ready for a fast stop. Use windshield wipers in heavy fog. If the fog or smoke becomes so thick that you cannot see well enough to keep driving, pull all the way off the pavement and stop.

In some areas, industrial smoke and other pollutants can cause smog that drastically reduces a driver's ability to see. Use the same methods for driving in smog that you would in foggy conditions.

Reduced Visibility

You must turn on your low beam (dim) headlights when driving at any time between sunset and sunrise, including the twilight hours between sunset and sunrise, full night, or between full night and sunrise. You must also use these lights during any rain, smoke or fog. Parking lights do not meet requirements of this law.

City and Country Driving

Driving in the city can be confusing because there is so much happening all at the same time. There is a need to keep track of a multitude of vehicles, pedestrians and directions. In 1999, 60.3% of all crashes occurred in primarily business areas.

When driving in the city, you should scan the road ahead for obstacles such as double-parked cars, cars coming out of alleys and parking lots, and pedestrians. By planning ahead, you will have plenty of time to change lanes safely. Know the rules for driving in intersections. Scan the road ahead as well as cross traffic before entering an intersection. A study of non-freeway motor vehicle crashes in four urban areas of the United States found that 56 percent of crashes occurred at intersections.

Another principal contributing factor in urban motor vehicle crashes in the United States and other countries is the failure of drivers to obey traffic control devices. Twenty-two percent of urban crashes studied resulted from drivers running traffic control devices.

There is no doubt about it, country or rural driving is easier and more relaxing than driving in the city. However, it is also more dangerous. The reason for this is simple; you are traveling at higher speeds.

About a third of motor vehicle deaths involve vehicles leaving the roadway and hitting fixed objects such as trees or utility poles alongside the road. Almost all such crashes involve only one vehicle. Roadside hazard crashes occur in both urban and rural areas but are mostly a problem on rural roads. They are most likely to occur on curves and/or downhill road sections. More than a third involve a vehicle that rolls over. About a third involve occupant ejection. Trees are by far the most common objects struck in roadside hazard crashes.

Alcohol is a frequent contributing factor in these crashes. Motorists also run off the road because of excessive speed, fatigue, or inattention. Efforts to reduce these driver errors are only somewhat effective, so it is important to shield or remove stationary objects or avoid putting them along roads in the first place, especially roads where vehicles are more likely to leave the pavement.

The following facts are based on analysis of data from the U.S. Department of Transportation:

- * 12,001 people died in roadside hazard crashes in 1999, which is 2 percent more than in 1998 and about 9 percent more than in 1975.
- * The proportion of motor vehicle deaths involving roadside hazards has remained between 28 and 30 percent since 1979.
- * Forty-four percent of drivers killed in roadside hazard crashes in 1999 had blood alcohol levels at or above 0.10.
- * Drivers of 43 percent of the vehicles in fatal roadside hazard crashes in 1999 were men younger than 35.
- * 55 percent of deaths in roadside hazard crashes in 1999 occurred on roads with speed limits 55 mph or faster.

Trees are the most common objects struck in a crash. Twenty-nine percent of deaths in roadside hazard crashes in 1999 involved a vehicle striking a tree.

Embankments are the next most common hazard, accounting for 11 percent of deaths in roadside hazard crashes in 1999.

Vehicle Equipment

The Importance of Vehicle Safety Maintenance:

An ounce of prevention is really worth a pound of cure when it comes to motor vehicles. Inspecting and caring for your car before something goes wrong can save you money and aggravation. More important, however, maintaining your vehicle can save your life.

Look at preventative maintenance as a daily type of care for your vehicle. As a driver, you should pay close attention to the aspects of your vehicle that increase your safety on the road. It is much easier to repair your car at home than it is on the side of the roadway. If you have ever had a breakdown or a flat tire on a busy street, you have seen first hand how dangerous it is to be outside of your vehicle. Often, other drivers do not see cars pulled to the side of the roadway, and many people have been killed or injured in these circumstances while repairing their cars.

By conducting a routine inspection of your vehicle, you should be able to spot the majority of imminent problems. If you are unsure of the condition or reliability of your car, don't take chances. Get your car to a mechanic right away. Not only could this save you time and aggravation, it will also increase peace-of-mind while you travel.

Along with basic safety equipment, keep all components of your vehicle in good working order. Have the oil changed often, check fluid levels on a regular basis, replace worn belts, and change air cleaner filters. These basic maintenance procedures will increase the performance and efficiency of your vehicle, while reducing your concerns as a driver.

Brakes should always be kept in proper condition. Proper tire tread is always important, since that is the only part of the car that touches the road. Having your car in proper condition for safety is your responsibility as a driver. The following equipment should be inspected and maintained on a regular basis:

Your Vehicle Must Have the Following Equipment:

Automobile Lights

- * Bright (high-beam) headlights that show objects 450 feet ahead.
- * Dimmed (low-beam) headlights which show objects 150 feet ahead.
- * Two red taillights mounted on the rear, visible from 1,000 feet.

* A white light that makes the license plate visible from 50 feet. The plate must be kept clean.

* Two red stoplights which must be seen from 300 feet in the daytime and must come on when the foot brake is pressed.

All other vehicles, including animal-drawn vehicles, must have at least one white light visible from a distance of not less than 1,000 feet to the front. They must also have two red lights visible from a distance of not less than 1,000 feet to the rear, or one red light visible to the rear for a distance of 1,000 feet, and two red reflectors visible from all distances from 600 feet to 1,000 feet.

Horn: your vehicle must have a horn which can be heard from a distance of 200 feet.

Windshield wiper: your vehicle must have a windshield wiper in good working order for cleaning rain, snow or other moisture from the windshield.

Windshields: must be safety glass and may not be covered or treated with any material which has the effect of making the windshield reflective or in any way non-transparent. It must be free of any stickers not required by law.

Side windows: May not be composed of, covered by, or treated with any material which has a highly reflective or mirrored appearance and reflects more than 35% of the light.

Rear windows: when the rear window is composed of, covered by, or treated with any material which makes the rear window non-transparent, the vehicle must be equipped with side mirrors on both sides.

Tires: Your tires should have visible tread of at least $\frac{2}{32}$ of an inch across the base with no worn spots showing on the ply. Smooth tires on wet roads contribute to thousands of serious crashes. Keep your tires properly inflated.

Mirrors: Your car must have at least one rearview mirror which gives a view of the highway at least 200 feet to the rear.

Check your owner's manual for maintenance and care. Routinely check:

* Windshield washer fluid.

* Engine coolant.

* Oil levels.

* Transmission fluid.

- * Wiper blades.
- * Rotate tires.
- * Check bulbs and lights.

Daytime Running Lights

We can make our vehicles more visible by the use of daytime running lights or DRLs. Wired to turn on automatically when a vehicle's ignition is started, daytime running lights increase the visual contrast between vehicles and their background, improving their noticeability and detectability. DRLs are not the same as headlights, and you should turn on your headlights when required by law. Seven countries require motor vehicles to have lights on during all daytime periods. Studies have generally indicated that the use of daytime running lights is associated with small to moderate reductions in multiple-vehicle daytime crashes, especially those involving vehicles approaching from the front or side. In Canada, where daytime running lights are required, there was an 11 percent decline in two-vehicle different-direction crashes during the day. Daytime running lights have been permitted, but not required, in the United States since early 1993. Multiple-vehicle crashes occurring in daylight account for about half of all police-reported crashes in the United States. If daytime running lights are 5 to 10 percent effective in reducing crashes, that would have translated to a reduction of 157,000-315,000 crashes in 1993. General Motors, Saab, Volkswagen, and Volvo are now equipping some car models with daylight running lights as standard equipment. If your car is not equipped with daylight running lights it may be a good idea to turn your headlights on when you encounter any type of limited visibility situation or if you just want to make yourself more visible to other drivers.

Brakes

Brakes are one of the most important safety features on your motor vehicle. Properly maintained brakes can slow or stop a vehicle fast enough to avoid many possibly hazardous situations. However, your brakes can malfunction. If they begin to fail, try not to panic. You can slow your vehicle by downshifting to a lower gear, by pumping the brakes to build up pressure, by applying the emergency brake, or by steering away from danger. As a last resort in a brake failure situation, you can sound your horn and flash your lights to warn away other drivers.

The Anti-Lock Brake System (ABS) is a fairly recent technology being used on motor vehicles. This system is designed to help drivers avoid crashes by rapidly mechanically pumping the brakes. When a driver steps down very hard on conventional brakes, the wheels may lock and the vehicle can skid. Wheel lockup can result in longer stopping distances, loss of steering control, and, when road friction is uneven, loss of stability if the vehicle begins to spin. The main advantage of antilocks is that they can reduce these problems on wet and slippery roads. Antilocks should not make much difference in stopping distances on dry roads, although they can enhance vehicle stability and allow

drivers to maintain steering control during emergency stops when conventional brakes might allow wheel lockup and skidding.

Drivers should never pump antilock brakes because antilocks automatically pump the brakes many times a second. Instead, the driver should apply firm and continuous pressure to the brake pedal to activate the antilock feature. Drivers should not hesitate to stomp the brakes. When antilocks are working, the driver may feel a pulsating sensation from the brake pedal. If the antilock feature fails to activate, brakes revert to conventional operation.

Why don't antilocks reduce stopping distances as much on dry surfaces as on wet ones? Adequate braking is easy to achieve on dry roads with or without antilock brakes. Even if wheels lock, the coefficient of friction between the tires and the road surface is still high, so a vehicle stops relatively quickly. It is even possible on some surfaces to stop more quickly without antilocks than with them, although such instances are rare: for example, when loosely packed snow or gravel creates a "dam" effect in front of locked wheels, shortening the stopping distance more than antilocks could.

Do antilocks reduce crashes? Although antilocks perform well on the test track, there is no evidence that they have made significant reductions in the number of on-the-road crashes. A 1994 Highway Loss Data Institute (HLDI) study and a subsequent 1995 study compared insurance claims for groups of otherwise identical cars with and without antilocks, finding no differences in the overall frequency or cost of crashes for which insurance claims for vehicle damage were filed. Because antilocks should make the most difference on wet and slippery roads, researchers also studied insurance claims experience in 29 northern states during winter months: they still found no difference in the frequency of insurance claims for vehicles with and without antilock brakes. A 1996 Institute study, as well as a 2000 update, reported no difference in the overall fatal crash involvement of cars with and without antilocks.

Safety Belts and Air Bags

Seat belts and air bags are not new to the automobile industry. Most people are aware of the advantage of using these safety devices, yet many drivers still refuse to use them. The following statistics illustrate the importance of these life-saving innovations:

- * Safety belts, when used, reduce the risk of fatal injury to front-seat passenger car occupants by 45 percent.
- * From 1975 through 1999, an estimated 123,213 lives were saved by safety belts.
- * The National Highway Traffic Safety Administration estimates that 6,377 people are alive today because of their airbags.

* The National Highway Traffic Safety Administration estimates that the combination of an airbag plus a lap/shoulder belt reduces the risk of serious head injury by 81 percent compared with a 60 percent reduction for belts alone.

In vehicles equipped with airbags, the most critical thing to take into account is the position of the driver and passengers. Serious inflation injuries occur primarily because of the position in which people are sitting when airbags first begin inflating. Anyone, regardless of size or age, who is on top of or very close to an airbag, is at risk. Most airbag deaths have involved people who were not using belts, were using them incorrectly, or were positioned improperly.

People who do not wear seat belts or who use them incorrectly are at risk because they are likely to move forward during hard braking or other violent maneuvers before crashes. They may be very close to or on top of airbags before inflation begins. This particularly affects passengers, but improperly positioned people at risk also includes drivers who sit very close to the steering wheel (10 inches or closer) and infants in rear-facing restraints in front seats.

These are a few simple steps that can eliminate the risks of airbags without sacrificing life-saving benefits.

On/Off Switches for Airbags

The federal government has set criteria for the very few cases when airbag on/off switches may be needed to avoid injury risk. You must obtain permission to deactivate an airbag or have an on/off switch installed from the NHTSA. But getting a driver airbag switch makes sense only when someone, such as a very short person, has tried various positions and cannot comfortably drive while sitting back and away from the steering wheel. A woman late in pregnancy who cannot get her abdomen away from the steering wheel may also wish to get permission for a switch, based on medical need. However, remember that in a serious crash without an airbag, sitting so close to the wheel means a high risk of hitting it.

Most 1998 and later model cars have redesigned airbags with less powerful inflators that reduce injury risk. In these cars there is probably no need to have an on/off switch for a driver airbag, even if you cannot get 10 inches from the wheel. Still, it is best to sit back and away from an airbag. On the passenger side, there is no significant airbag injury risk for belted adults sitting back in the seat. The risk for infants and children can be eliminated by ensuring they ride in a back seat and are properly restrained.

So should you even consider getting an on/off switch for a passenger airbag? Only in rare circumstances, such as when an infant with medical problems requires constant observation and the driver is the only other person in the vehicle. In that case there might be no choice but to put the baby up front, and the airbag would present a risk. Of course, paying constant attention to a baby distracts from driving and involves its own risks.

Another circumstance would involve parents who transport too many infants or small children to put them all in back and who are concerned about keeping the child in front sitting back and away from the airbag. In this case, you may wish to get an on/off switch. If you do get one, remember to use it correctly. Remember to turn off the airbag when an infant or child must ride in front. The decision about airbag on/off switches should be made with all the facts in mind: in most cases using a switch is rarely necessary if simple precautions are taken.

The problem of serious inflation injuries is not going to be with us forever. Most new models have redesigned airbags, and future airbag technologies will reduce the risk even among people who have moved forward before airbags inflate. Sensors will detect rear-facing restraints and automatically switch off passenger bags. Inflation rates will be tailored to crash severity. More advanced airbags could recognize people's positions just before inflating and reduce the force if someone is in a position to be harmed.

Safety belts are still your best protection in a crash. They are designed so that the strongest areas of your body absorb the forces in a crash: the bones of your hips, shoulders, and chest. They keep you in place so that your head, face, and chest are less likely to strike the steering wheel, windshield, dashboard, or the vehicle's interior frame, and they prevent you and other occupants from being thrown into each other or ejected from the vehicle. Some pregnant women refuse to use safety belts because they think, "In a crash, it may harm me and my unborn baby." They are wrong. A safety belt is the best protection for both mother and unborn child if when buckling up she uses caution in the way she adjusts her belt.

There are incorrect ways to wear a safety belt:

- * Do not wear the belt across your stomach, because that would increase the likelihood of serious injury.
- * Do not place the shoulder belt behind your back, because it cannot restrain your upper torso when it is in this position. Your head and chest could strike the steering wheel, the dashboard, or the back of the front seat.
- * Do not wear the belt under your arm, since this will allow the belt to ride over the lower part of your rib cage. You could break ribs and sustain serious internal injuries.

In Florida it is unlawful:

- * For any person to operate a motor vehicle unless each passenger of the vehicle under the age of 18 years is restrained by a safety belt or by a child restraint device or to operate a motor vehicle in this state unless the person is restrained by a safety belt.

* For any person 18 years of age or older to be a passenger in the front seat of a motor vehicle unless such person is restrained by a safety belt when the vehicle is in motion.

Infants and Children and Driver Responsibility:

Crash injuries are the leading cause of death in children ages 5-12. Proper restraints and positioning can greatly reduce this problem. It is your responsibility as a driver to have all children properly belted or secured in a child restraint. If you are negligent in this, you can be charged with a moving violation. The fine for this is \$60, court costs, and 3 points on your driver license.

* If possible, always place children in the back seat. Children riding in the back are much less likely to be killed whether or not the vehicle is fitted with airbags. Riding in the back keeps children away from inflating airbags.

* Do not put a rear-facing restraint in the front seat. Beginning with your first trip home from the hospital, put infants in the center back seat. Make sure the rear-facing restraint is tightly secured to the vehicle with an adult safety belt and the baby is buckled snugly. Read the installation instructions from the manufacturer of the child restraint you are using and follow them closely. Infant seats are designed for babies, from birth to at least 20 pounds and one year of age.

* If there is no choice but to put a child in the front seat, then an on/off switch for the passenger airbag is essential. However, remember that the back seat is safer.

* When babies outgrow their rear-facing restraints, they should graduate to forward-facing ones or booster seats attached to a vehicle's back seat with an adult safety belt.

* As children graduate to adult belts, proper restraint use is still essential. Do not put the shoulder portion of a belt behind a child or under the arm, and do not let a youngster do this: this practice compromises protection. A lap belt should be positioned so that it is low and snug across a child's hips, not up over the abdomen.

* Older children should continue riding in a back seat. Only if there are too many children to put all of them in back, should a child be allowed to ride up front. Then make sure the seat is positioned as far back as possible and the child is securely buckled and sitting back in the seat. Leaning forward to fiddle with radio dials, for example, can put a child at risk. If you worry about keeping a child sitting back, you should consider getting an on/off switch for the passenger airbag.

Florida law states:

Every operator of a motor vehicle while transporting a child in a motor vehicle shall, if the child is 5 years of age or younger, provide for protection of the child by properly using a crash-tested, federally approved child restraint device. For children aged through 3 years, such restraint device must be a separate carrier or a vehicle manufacturer's

integrated child seat. For children 4 through 5 years, a separate carrier, an integrated child seat, or a seat belt may be used.

Adults:

- * Children are not the only vehicle occupants at risk from an inflating airbag. Adults should also buckle up and sit back. Most adults can virtually eliminate the risk by buckling up.
- * Neither short women nor elderly drivers are especially vulnerable if they use safety belts and sit at least 10 to 12 inches from the steering wheel.
- * The only belted drivers potentially at risk of serious airbag injury are those sitting very close to the steering wheel. These same drivers would be at risk even without airbags, however, because in a serious crash they would likely hit the steering wheel hard, usually with their face. They can reduce the risk of airbags, without sacrificing the benefits, by sitting back and away from the wheel.
- * Most drivers, even shorter ones, can get at least 10 inches from the steering wheel and still reach the pedals. The problem with drivers sitting closer is that they are often leaning forward instead of sitting back in their seats. The few who cannot get 10 inches from the steering wheel and still comfortably reach the pedals may wish to consider pedal extenders.

Head Rests

Head rests are important in reducing neck injuries in all types of collisions but especially in rear end crashes. Head restraints became mandatory in the right and left front seats of all passenger cars made for sale in the United States beginning in 1969. This greatly reduced the incidence of neck injuries in rear end collisions

Head/neck motion is the problem in rear-end crashes: First an occupant's torso moves forward, but the head lags behind as the vehicle is pushed forward by the impact. Then the head rotates to the rear, bending or extending the neck backward in an extension-rotation motion. Next is rebound. The head rotates forward, causing a flexed (forward bent) neck posture before settling into its post-impact position.

Always adjust your head rest so that the center of the padded section is directly in the middle of the head. If you are a taller driver, keep your head rest in the "up" position. Many drivers leave them in the "down" position. This does not allow the restraint to properly cushion the violent backward movement of the head in a whiplash situation.

This completes the reading for Chapter 2. The Department of Highway Safety Motor Vehicles requires that each chapter is 50 minutes. If you have finished reading the materials in this chapter please review any sections that you would like to read again or just be patient until your timer reaches 0 minutes. When your timer reaches 0 minutes

please hit the button below that says "Save Time & Go To Menu" and this will allow you to continue with Chapter 3.

CHAPTER 3

You are about to begin reading Chapter 3. You can log on and off the program anytime you would like. If you want to log off and take a break just go to the bottom left corner of the page and hit the "Save Time & Go To Menu" button and this will save the time you have completed on this chapter. You must spend the required 50 minutes in this chapter. If you finish reading the materials before the timer reaches 0 minutes we just ask that you please be patient. This time is required by the Department of Highway Safety Motor Vehicles.

In Chapter 3, you will learn about Florida Law, road signs, signals and pavement markings, and proper negotiation of intersections. This section also includes information on sharing the roadway, including dealing with trucks, buses, emergency equipment, bicycles, motorcycles, and pedestrians. This portion of the program is scheduled for 50 minutes.

The Driver License Point System

The State of Florida uses a driving point system. Each driving infraction causes "points" to be placed on your license. If a driver accumulates too many points in a given time, his/her driver license will be suspended. Drivers may elect to take a basic driving improvement course to keep points off their record and to keep their insurance costs down.

If you receive:

- * 12 points in 12 months = your license will be suspended for 30 days
- * 18 points in 18 months = your license will be suspended for 3 months
- * 24 points in 36 months = your license will be suspended for 1 year

Out of state violations need to be handled the same way you would handle a citation you receive in the State of Florida.

Listed below are violations and the point values that may be assessed to your license:

Violation

Points

Leaving the scene of a crash resulting in property damage of more than \$50

6

Unlawful speeding resulting in a collision

6

Reckless driving

4

Any moving violation resulting in a collision

4

Passing a stopped school bus

4

Driving during restricted hours

3

Unlawful speed: 16 MPH or more over the lawful or posted speed limit

4

Unlawful speed: 15 MPH or less over the lawful or posted speed limit

3

Open container violation

3

All other moving violations

3

Violation of child restraint

3

Violation of curfew

3

Suspension or Revocation

As we discussed previously, if you break the traffic laws or become an unsafe driver, your license can be taken away. It can be suspended, revoked, or canceled. When your license is suspended, it is temporarily taken away.

Your license can be suspended if you:

- * Make a fraudulent driver license application.
- * Are not able to drive safely.
- * Allow your license to be used for a purpose that is against the law.
- * Are convicted in a traffic court and the court orders that your license be suspended.
- * Refuse to take a test to show if you are driving while under the influence of alcohol or drugs.
- * Misuse a restricted license.
- * Earn a certain number of points for traffic offenses on the point system.
- * Break a traffic law and fail to pay your fine or appear in court as directed.

If your license is revoked, it is taken away for a period of 6 months to life. In some cases, you may apply for a new license

after a period of time.

By law, your license must be revoked if you are found guilty of or department records show:

- * Driving while under the influence of alcohol, drugs or other controlled substances.
- * A felony in which a motor vehicle is used.
- * Not stopping to give help when the vehicle you are driving is involved in a crash causing death or personal injury.
- * Lying about the ownership or operation of motor vehicles.
- * Three cases of reckless driving within one year. Forfeiting bail and not going to court to avoid being convicted of reckless driving counts the same as a conviction.
- * An immoral act in which a motor vehicle was used.
- * Three major offenses or 15 offenses for which you receive points within a 5-year period.
- * A felony for drug possession.
- * Vision worse than the standard minimum requirements.

A court may also order that your license be revoked for certain other traffic offenses. Your license will be revoked for at least three years if you kill someone because of reckless driving.

A Driver License May Be Cancelled If:

- * Incorrect information was given in application for the license.
- * Fraud was committed in obtaining a license.
- * The licensee fails to pay the correct fee or pays any administrative, delinquency, or reinstatement fee by a dishonored check.

Drivers need to be aware that receiving points on your license in most cases will drive up the cost of insurance. Having your license suspended or revoked will usually result in cancellation of your insurance.

When drivers allow too many points to be accumulated on their license, as described in the previous page, the added costs are:

1. Payment for citation.
2. Payment for driving school.
3. Increased insurance rates or cancellation.
4. The cost of having someone drive you to work or cab fare.
5. Possible loss of your job.

Zero Tolerance

Any driver under 21 years of age who is stopped by law enforcement and is under the influence of alcoholic beverages or has any blood alcohol level will automatically have his/her driving privilege suspended for 6 months. This is an administrative suspension and does not reflect as a DUI on the driver's record. If the driver refuses to take a test, his driving privilege is automatically suspended for one year.

Mandatory Restriction for Minors

Any driver under the age of 18 who accumulates six or more points within a 12-month period shall be automatically restricted for one year to driving for business purposes only. If additional points are accumulated, the restriction will be extended for 90 days for every additional point received.

Upon determination that any person age 15 through 17 has accumulated six or more points, the Department of Highway Safety and Motor Vehicles shall notify the licensee and issue that person a restricted license for business purposes only. The licensee must appear before the department within 10 days after notification to have this restriction applied. The period of restriction shall be for a period of no less than 1 year beginning on the date it is applied by the Department of Highway Safety and Motor Vehicles.

Intersections

Intersections pose various problems for the driver. There are several different types of intersections and traffic control devices and it is important for you to be familiar with each:

Traffic Lights

* Green indicates vehicular traffic facing a circular green signal may proceed cautiously straight through or turn right or left unless a sign at such place prohibits either such turn.

* Steady yellow indicates vehicular traffic facing a steady yellow signal is thereby warned that the related green movement is being terminated or that a red indication will be exhibited immediately thereafter when vehicular traffic shall not enter the intersection.

* Steady red indicates vehicular traffic facing a steady red signal shall stop before entering the crosswalk on the near side of the intersection or, if none, then before entering the intersection and shall remain standing until a green indication is shown.

When a light has been green for a while, approach the intersection slowly with your foot over the brakes so that you are prepared to stop.

If a traffic signal malfunctions treat the intersection as a four-way stop.

Right of Way

As a good driver, you will have to yield right of way. This means, “let another vehicle go first.” Never assume that you automatically have the right of way. The overriding rule is that all vehicles must yield right of way to avoid collision.

Here are some right of way guidelines:

- * Traffic going straight has the right of way over traffic making turns.
- * Traffic at a stop or yield sign must wait for cross traffic without signs to clear.
- * If traffic on either side of the intersection is backed up to the intersection, stay out of the intersection until traffic clears.

Red Light Runners

Drivers who run red lights are responsible for an estimated 260,000 crashes each year, of which approximately 750 are fatal, and the number is rising. Determining the size of the problem of running red lights is one aspect of a new Insurance Institute for Highway Safety study. The report also profiles red light runners who, compared with other drivers, tend to be younger and have poor driving records and histories of alcohol use. Institute researchers also identify U.S. cities with especially high rates of fatal red light running crashes.

Red light cameras are increasingly being used to enforce traffic laws by automatically photographing vehicles whose drivers deliberately run red lights and ticketing the

violators by mail. Several months after red light cameras were introduced in one California city evaluated by the Institute, red light running violations dropped about 42 percent.

Characteristics of Red Light Runners

In fatal red light running crashes involving two cars, the violators were more likely than non-runners to be younger than thirty years old, at 43 percent compared to 32 percent. Those who run red lights were also more likely to have been driving with suspended, revoked, or otherwise invalid driver licenses. Younger drivers were particularly likely to be unlicensed.

Scanning Habits When Approaching Intersections

- * Search for areas of limited visibility.
- * Identify traffic controls.
- * Monitor roadway conditions.
- * Anticipate possible conflicts with other roadway users.
- * Check following traffic.
- * Scan carefully for control devices and objects in or near your path.

Selecting a Path of Travel

- * Approach the intersection with the idea that you should identify and maintain an escape path for your vehicle while stopping or stopped.
- * Select a lane based on your path. Are you crossing the intersection, turning right, turning left or turning into a one-way street?

Selecting a Safe Gap in Traffic

- * Approach the intersection with the idea that you should select a gap large enough to allow you to cross an intersection from a full stop without interrupting cross-street traffic.
- * Check again for pedestrians, bicyclists and oncoming and cross traffic.
- * The size of the gap needed to safely cross depends on the size of the intersection and whether you are turning. Longer time gaps are required for turns.
- * Look through the turn at least 4 seconds ahead.

- * Maintain a speed of 5 to 10 mph while turning.
- * As you make a right-hand turn, keep your speed low and look as far ahead as possible along your travel path.

Green Light

When the traffic light turns green, always scan left and right before entering the intersection. When you scan left and right, you may observe a vehicle approaching the intersection from the left or right at what appears to be a high rate of speed. Do not enter the intersection until you are sure of the intentions of the driver.

Stop Signs

A stop sign means just that; you must bring your vehicle to a full STOP. Remember that a flashing red light also means that you must stop.

Yield

When you see a yield sign, slow down and give vehicles crossing your path the right-of-way. If the way is clear, you may move forward slowly without stopping. Yield signs are usually placed where auxiliary roads lead into major roads.

Four-Way Stop

A four-way stop sign means that there are four stop signs at the intersection. Traffic from all four directions must stop. The first vehicle to reach the intersection should move forward first. If two vehicles reach the intersection at the same time the driver on the left yields to the driver on the right. But be careful, not all drivers follow the rules. Remember that courtesy is important in these situations. Waiting a bit longer may eliminate risk or injury.

Traffic Signs

There are eight shapes and eight colors of traffic signs. Each shape and each color has an exact meaning, so you must acquaint yourself with all of them.

GREEN - Guide, directional information

RED - Stop, yield, do not enter or wrong way

BLUE - Motorist services guidance. Also used to identify parking spaces for handicapped drivers

ORANGE - Construction and maintenance warning

YELLOW - General warning

WHITE - Regulatory

BLACK - Regulatory

BROWN - Public recreation areas and scenic guidance

The shape of a road sign can tell you as much about the sign's message as its color.

- * OCTAGON - Exclusively for stop signs
- * HORIZONTAL RECTANGLE - Generally for guide signs
- * TRIANGLE - Exclusively for yield signs
- * PENNANT - Advance warning of no passing zones

Pavement Markings

Road markings are used to guide and warn drivers. Markings may be either yellow or white. Each has a different meaning. Yellow centerline markings separate lanes of traffic moving in opposite directions. White lines separate lanes of traffic going in the same direction.

Some of the basic rules that must be followed are:

- * A single solid, broken or dotted line may be crossed with care: yellow means pass with due care, white means change lanes with due care.
- * A double solid line may not be crossed: yellow means no passing, white means do not change lanes. However, a double solid yellow line may be crossed in making a left turn.
- * A dotted line is used to guide vehicles into particular paths, such as through intersections where solid or broken or skip lines would be confusing.
- * A solid line with a dotted line prohibits passing or crossing if the solid line is on the side where the vehicle is traveling, except when the vehicle is turning into a reversed turn lane or into a two-way left turn lane.

Yellow lines:

- * A broken yellow line means that you may pass on the left when the way ahead is clear. Remember that you are facing oncoming traffic, so overtaking and passing should be done with care.
- * A solid yellow line to the right of a broken yellow center line means passing or crossing is prohibited in that lane, except when turning left.

* Double solid yellow lines mean that passing is not allowed in either direction. You may not cross the lines unless you are making a left turn.

White lines:

* Broken white lines separate lines of traffic going in the same direction. They may be crossed with care.

* Solid white lines are used for turn lanes and to discourage lane changes near intersections. Arrows are often used with the white lines to show which turn may be made from the lane.

* Double solid white lines indicate that changing lanes is not allowed.

* A curved arrow and the word ONLY in your lane means you must turn in the direction of the arrow. If your lane is marked with both a curved and straight arrow, you may either turn or go straight.

* Reversible traffic lanes are on some highways to help handle rush-hour traffic or other special traffic conditions. The direction of traffic is reversed at set times each day. These pavement markings are used along with special lane signals and other signs and symbols.

* A two-way roadway with a center lane for left turns in either direction of travel has a specially marked center turn lane which is intended for slowing down and for sheltering turning vehicles. The center lane may not be used for passing.

* A solid white line marks the edge of the pavement on most roads. Stop lines, crosswalks and parking spaces are also marked by white lines. Symbols such as arrows are in white also. A single yellow line marks the left edge of all divided or one-way roadways.

* Curbs are often marked yellow in no-parking zones near fire hydrants or intersections. It is unlawful to park in or drive through areas that have pavement markings indicating fire lanes or safety zones.

Railroad Crossing Signs and Signals

There are several signs, signals and pavement markings that indicate railroad crossings. When you see one of them, slow down and be ready to stop.

Any person driving a vehicle and approaching a railroad-highway grade crossing must stop within 50 feet but not less than 15 feet from the nearest rail of the railroad when the electrical or mechanical warning devices are flashing; or the crossing gate is lowered or a human flagger is warning of an approaching train; or there is an approaching train clearly

visible and the train is in hazardous proximity to the railroad-highway grade crossing. The driver must not proceed until he can do so safely.

The advance warning sign is usually the first sign you see when approaching a highway-rail intersection. The advance warning sign advises you to slow down, look and listen for a train, and be prepared to stop if a train is approaching.

Crossbuck signs are found at highway-rail intersections. They are yield signs. You are legally required to yield the right of way to trains. Slow down, look and listen for a train, and stop if a train approaches. When the road crosses over more than one set of tracks, a sign below the crossbuck will indicate the number of tracks.

At many highway-rail crossings, the crossbuck has flashing red lights and bells. When the lights begin to flash, STOP! You must stop within 50 feet, but never less than 15 feet, from the nearest rail of such railroad. Do not move forward until you can do so safely. If there is more than one track, make sure that all tracks are clear before crossing. In heavy traffic, make sure there is room for your vehicle on the other side before starting to cross.

Many crossings have gates with flashing red lights and bells. Stop when the lights begin to flash and before the gate lowers across your side of the road. Do not move forward until the gates are raised and the lights stop flashing, as there may be a train approaching on an adjacent track.

Always approach highway-railroad crossings at a reasonable speed, and be prepared to stop if you have to. Be especially alert when you are following buses or trucks, which may have to stop at highway-railroad crossings even if the gates are up and the warning lights are not flashing.

If your car stalls on the tracks don't hesitate. Get yourself and your passengers out and away from the car immediately. If a collision is imminent, the safest direction is toward the train, but stay off the tracks. That way you will be least likely to be hit by your vehicle or any debris from the collision.

Buses and Emergency Vehicles

When approaching a school bus, you should always slow down. If the amber lights on the bus are flashing, the bus is about to stop: when the bus has stopped, the red lights flash. When a school bus stops on a two-lane road, traffic in all lanes must stop. However, if the highway is a four-lane road and divided by a raised barrier or an unpaved median at least five feet wide, you do not have to stop if you are moving in the opposite direction. Remember, the center turn lane is not a median; it is a lane.

If you fail to stop for a school bus, when the bus displays a stop signal, there is a penalty of one hundred dollars. If you pass on the side of the bus that children enter or exit the bus, there is penalty of two hundred dollars. Keep in mind children do the unexpected. They may unintentionally dart out from behind the school bus. That is why it is important to always follow the law and stop when required. More important, though, would be the deep feelings you would live with if you were to strike or kill a child.

You must yield the right of way to emergency vehicles. If you hear a siren or see a flashing light, pull over as far as possible to the closest edge of the curb and stop until the vehicle has passed. Do not stop in an intersection. Once the vehicle has passed, look over your shoulder and carefully proceed. Keep in mind that other emergency vehicles may be responding to the same situation. Stay extra alert for sirens and emergency lights during these times.

No driver of any vehicle, other than an authorized emergency vehicle on official business may follow any fire apparatus (truck) traveling in response to a fire alarm closer than 500 feet or park such vehicle within the block where fire apparatus has stopped in answer of a fire alarm.

Pedestrians must also yield right-of-way to all emergency vehicles until they have passed.

Trucks

As a driver, you share the roadway with a variety of vehicles and drivers. Our country depends upon the vast shipments of goods from place to place by trucking companies and individuals. It is important for you to understand that these vehicles do not perform in the same manner as passenger vehicles. This will allow you to anticipate and react while you drive near these large vehicles.

Visibility:

Truck drivers sit high above the roadway and have a commanding view of the terrain and conditions ahead. It is difficult, however, for the truck driver to see what is to the side and behind of his/her truck. Even with rear-view mirrors, it is quite possible for your

vehicle to be invisible to the driver. When you are following a truck, increase your following distance. This allows the truck driver to see you, and it also increases your visibility around the truck. Also, remember that a truck requires wide turning space and more time and space to stop than cars do.

The length of the trailer body obstructs visibility to the rear of a truck so it is important not to follow a truck too closely. If you cannot see the driver when looking in his side mirror, he cannot see you.

Another blind spot is alongside the cab of the truck. The driver cannot see below the windshield to the right of the cab. For this reason never pull to the right of a truck who appears to be turning to the right.

Do not pull out in front of a large truck and assume that the driver will be able to stop. Stopping distances (of a truck traveling 55mph) range from 300 feet to 500 feet, depending upon roadway conditions and the material being hauled on the truck. When a large truck slams on brakes, the load being carried might shift and create major stopping problems.

If a large truck or bus is passing you, slow down. If the pavement is wet, splash or spray from their tires can reduce visibility. Turn on your wipers before the vehicle passes you. Also be especially careful passing a truck with a trailer.

By following these safety procedures when dealing with trucks you will be more likely to safely share the roadway with these large vehicles, and truck drivers will greatly appreciate your understanding of their special large vehicles.

What is considered a large truck?

Large trucks can weigh 80,000 pounds and, in some states, 100,000 pounds. Trucks often weigh 20-30 times as much as passenger cars. In most states, the maximum permitted length for a single trailer is 53 feet. Tractors pulling two 28-foot trailers are known as twins or western doubles. Trucks even bigger than western doubles are allowed to travel on some of the nation's roads.

Motorcycles

Motorcycles are a very popular part of American culture. People of all ages and from all walks of life are spending more and more time riding them. Motorcycles, however, are less stable and less visible than cars, and they have high performance capabilities. For these and other reasons, motorcycles are more likely than cars to be in crashes. When motorcycles crash, their riders lack the protection of an enclosed vehicle, so they are

more likely to be injured or killed. Per mile traveled, the number of deaths on motorcycles is about 16 times the number in cars.

Motorcycles are affected by tire failure, grooves in the road, debris in the roadway and a number of other issues to a greater extent than are automobiles. Because of this, keep a greater following distance behind a motorcycle and always remember that if the motorcycle goes out of control, you must be prepared to avoid hitting a rider who may be thrown onto the roadway.

It is illegal to drive beside a motorcycle that is in the same lane with you. Two motorcycles, however, may drive side by side in the same lane.

When passing a motorcycle, follow standard passing procedures, but do not pass so close as to throw dirt, stones or debris from the roadway into the rider.

Five types of crashes account for 86 percent of fatal motorcycle crashes:

- * The motorcycle runs off the road (41 percent)
- * The motorcycle or other vehicle runs a traffic control device (18 percent)
- * Head on collision (11 percent)
- * An automobile turns in front of the motorcycle (8 percent)
- * The motorcycle goes down on the roadway (7 percent)

Because serious head injury is common among fatally injured motorcyclists, helmet use is important. In states that require all riders to wear helmets, actual use approaches 100 percent compared with about 50 percent in other states. Only about half of the states, however, mandate helmet use by all riders. Death rates from head injuries have been shown to be twice as high among motorcyclists in states with no helmet laws or laws that apply only to young riders, compared with states where laws apply to all riders. Repealing or weakening helmet laws so that they do not apply to all riders has been followed in a number of states by an increase in deaths. In contrast, benefits return when helmet laws applying to all riders are reinstated.

How Effective are Helmets?

Helmets decrease the severity of injury, the likelihood of death, and the overall cost of medical care. They are designed to cushion and protect riders' heads from the impact of a crash. Just like safety belts in cars, helmets cannot provide total protection against head injury or death, but they do reduce the incidence of both. The National Highway Traffic Safety Administration (N.H.T.S.A.) estimates that helmets reduce the risk of death in a motorcycle crash by 29 percent and the risk of fatal head injury by 40 percent. Helmets are even more effective in preventing brain injuries, which often require extensive

treatment and may result in lifelong disability. Studies show unhelmeted motorcyclists are three times more likely to suffer traumatic brain injuries in a crash than are helmeted riders.

Are there drawbacks to helmet use?

Claims have been made that helmets increase the risk of neck injuries and reduce peripheral vision and hearing, but there is no credible evidence to support these arguments. A study by J.P. Goldstein is often cited by helmet opponents as evidence that helmets cause neck injuries, allegedly by adding to head mass in a crash. More than a dozen studies have refuted Goldstein's findings. A study reported in the "Annals of Emergency Medicine" in 1994 analyzed 1,153 motorcycle crashes in four midwestern states and determined that "helmets reduce head injuries without an increased occurrence of spinal injuries in motorcycle trauma."

Bicycles

While some drivers consider bicyclists a major nuisance, bicycles are actually classified as vehicles and are governed by the same rules as motor vehicles. Riders have to abide by the same laws as other vehicles, but they are often treated with little or no respect on the roadways. Two percent of motor vehicle-related deaths are bicyclists. Among a majority of those killed, the most serious injuries are to the head, so it is important for bicyclists to wear helmets. Sixteen states have helmet laws applying to young bicyclists but none of these laws applies to all riders. Local ordinances in a few states do require some or all bicyclists to wear helmets. Helmets are important for riders of all ages, especially because older bicyclists represent more than two-thirds of bicycle deaths.

Persons riding bicycles or mopeds on a roadway have the same rights (with certain exceptions) and duties as drivers of motor vehicles. Bicycle riders will receive traffic tickets for traffic violations.

Sharing the Road With Bicycles:

- * When passing a bicycle, follow standard passing procedures, but do not pass so close as to throw dirt, stones or debris from the roadway into the rider.
- * Be especially alert for bicycle riders. Due to the small size and profile of the average bicycle, they are not easily seen. Be careful not to pull into a lane where a cyclist is already riding. When parking, be cautious as not to open your door into a rider as you exit your vehicle.
- * Increase following distance when traveling behind a bicycle. If, for any reason, a rider falls from his/her bicycle, you need enough time to avoid running him/her over.

Driver Responsibilities Approaching Bike Lanes at Intersections:

Slow down and look for bicyclists. Signal your turn prior to crossing through the bike lane at the dashed striping. Yield to any bicyclist. Complete the turn from the designated right turn lane. If there is no right turn lane, after checking to make sure that no bicyclists are present, you may enter the bike lane at the intersection or driveway.

Bicyclists - Know and obey these laws:

- * Bicyclists must obey all traffic controls and signals.
- * An adult bicyclist may carry a child in a backpack or sling, child seat or trailer designed to carry children.
- * You may not allow a passenger to remain in a child seat or carrier when you are not in immediate control of the bicycle.
- * In Florida, bicyclists and passengers under age 16 are required to wear approved helmets. Bicycle helmets are recommended for all ages. In Florida, bicycle helmet laws may vary from county to county.
- * A bicyclist on a sidewalk or crosswalk must yield right of way to pedestrians and must give an audible signal before passing.
- * For use between sunset and sunrise, a bicycle must be equipped with a lamp on the front exhibiting a white light visible from 500 feet to the front and both a red reflector and a lamp on the rear exhibiting a red light visible from 600 feet to the rear.
- * Do not ride two abreast when this will impede the flow of traffic.
- * If you intend to make a left turn, you are entitled to full use of the lane from which the turn is made.
- * After a left turn you may proceed in the new direction of travel.
- * Signal your intent to turn to other vehicle operators by pointing in the direction you are going to turn.
- * Do not wear headphones or any other listening device except a hearing aid while bicycling.
- * Do not ride a bicycle when under the influence of alcohol or drugs.

Pedestrians

While there are many hazards encountered in daily driving, dealing with pedestrians can be one of the most unnerving. Pedestrian deaths are primarily an urban problem, with pedestrians being killed at crosswalks, sidewalks, median strips, and traffic islands. Careful attention to pedestrians should be every driver's concern. After vehicle occupants, pedestrians account for the second largest category of motor vehicle deaths, 12 percent of the total. 4,906 pedestrians died in 1999. This number is down 6 percent from 1998. In 1975, 17 percent of all motor vehicle deaths were pedestrians; that percentage fell to 12 percent in 1999. The elderly account for an abnormally large amount of all pedestrian deaths. In 1998, the pedestrian death rate for males over the age of 80 was more than 3 times as high as those age 74 and younger.

Physical separations like overpasses, underpasses, and barriers can reduce this problem. Warning signs and pavement markings at intersections can also be effective. Because there is a higher ratio of pedestrian deaths to injuries where speed limits are higher, lower speed limits could also reduce pedestrian deaths. You can help the problem by being very attentive when pedestrians are near and by reducing your speed to increase reaction time.

Pay extra attention at all intersections but especially those with crosswalks, as pedestrians are most likely to be present. Be alert for people crossing against the light, stepping off a curb prematurely, or rushing to beat a changing light. Also watch for pedestrians who need more time to cross than the signal allows.

Never assume a pedestrian has noticed your vehicle. Always be ready to take evasive action. Always yield pedestrians the right of way, even if he/she is crossing illegally.

The blind pedestrian is also a special concern to drivers. If you see a person carrying a white cane or using a guide dog, yield to him/her, no matter where he/she is crossing.

If there are no sidewalks, pedestrians should walk on the side of the road facing oncoming traffic. Since many pedestrians fail to do this, constantly scan for and be ready to react to pedestrians.

This completes the reading for Chapter 3. The Department of Highway Safety Motor Vehicles requires that each chapter is 50 minutes. If you have finished reading the materials in this chapter please review any sections that you would like to read again or just be patient until your timer reaches 0 minutes. When your timer reaches 0 minutes please hit the button below that says "Save Time & Go To Menu" and this will allow you to continue with Chapter 4.

CHAPTER 4

You are about to begin reading Chapter 4. You can log on and off the program anytime you would like. If you want to log off and take a break just go to the bottom left corner of the page and hit the "Save Time & Go To Menu" button and this will save the time you have completed on this chapter. You must spend the required 50 minutes in this chapter. If you finish reading the materials before the timer reaches 0 minutes we just ask that you please be patient. This time is required by the Department of Highway Safety Motor Vehicles.

The following section deals with DUI and other possibly hazardous acts in which drivers engage. This 50-minute portion of the program delves into the effects of alcohol and drugs on drivers, laws dealing with DUI, how blood alcohol levels are determined, and crashes that involve alcohol. This section also explores other habits of drivers that contribute to unsafe driving. These are: distracted driving, tailgating, unsafe passing, aggressive driving, and driving while fatigued.

Alcohol

In Florida in 2000 there were 23,518 alcohol related crashes. Awareness programs and law enforcement efforts have made progress in the past 20 years to reduce the number of fatally injured drivers with high blood alcohol levels (BAL's at or above 0.10) the number of fatally injured drivers has fallen for drivers in all age groups and for drivers of all types of vehicles. Still, alcohol-impaired driving is a major problem that claims far too many lives on all United States roadways.

How does alcohol affect driving ability?

No matter how good you are as a driver, alcohol will decrease your skill and will damage your judgment. Even one drink might be enough to impair your ability to drive safely. From the moment alcohol enters your blood stream, you begin to lose your ability to think clearly.

Alcohol is a depressant. When consumed it acts as a depressant upon the central nervous system. Alcohol is almost immediately absorbed into the bloodstream. It takes approximately 30 seconds for the first amount of alcohol to reach the brain resulting in:

- * Slowed reflexes- reducing ability to react to driving situations, ability to stop quickly, and ability to avoid roadside hazards.
- * Lack of coordination- reducing control of the vehicle including: steering, braking, changing lanes, turning, shifting gears, parking, and stopping.
- * Blurred vision- reducing ability to recognize road signs, signals, pedestrians, and changing driving situations.

* Reduced concentration- possibly causing inattention to driver responsibilities and negotiation of traffic. This could include driving off the road or crashing into other vehicles.

* Lack of rational judgment- possibly causing a driver to take foolish chances behind the wheel.

What does blood alcohol level measure?

Blood alcohol level (BAL) describes the level of alcohol in a person's blood expressed as weight per unit of volume. For example, at 0.10, there is a level of 100 mg of alcohol per 100 ml of blood. For most purposes, however, a blood sample is not necessary to determine a person's BAL: it can be measured by a simple analysis of exhaled breath.

Following Florida's lead, other states are lowering the presumptive blood alcohol level from 0.10 to 0.08. All states have zero tolerance laws that prohibit people younger than age 21 from driving after drinking. Typically, these laws prohibit driving with a BAL of 0.02 or greater. A BAL as low as 0.02 has been shown to affect driving ability. The probability of a crash rises significantly after a 0.05 BAL and even more rapidly after about 0.08. Among drivers age 35 and older with BALs at or above 0.15 on weekend nights, the likelihood of dying in a single-vehicle crash is 382 times higher than it is for non-drinking drivers.

How many drinks does it take to reach significantly impairing Blood Alcohol Level?

An illegal per se law makes it an offense, in and of itself, to drive with a blood alcohol level measured at or above the established presumptive level, whether or not the driver or operator exhibits the visible signs of impairment. Lowering the BAL to .08 sets the presumptive limit to a point at which driving skills are proven to be compromised. At .08 BAL, all drivers, even experienced drinkers, show impairment in driving ability. For the great majority, there is serious deterioration in driving performance at .08 BAL.

An average 170-pound male would need to consume four drinks in one hour on an empty stomach to reach a BAL of .08. An average 137-pound woman would need three drinks in one hour to reach that level. It is still important to remember that impairment begins immediately after any alcohol is consumed. It is recommended that you do not drive after consuming any amount of alcohol.

Are beer and wine less impairing than hard liquor?

Impairment is not determined by type of drink. It is measured by the amount of alcohol ingested over a specific period of time. Beer is the most common drink consumed by people stopped for alcohol-impaired driving or involved in alcohol-related crashes, but there is an equivalent amount of alcohol in such standard drinks as a 12-ounce glass of beer, a 5-ounce glass of table wine, and 1.5 ounces of 80 proof liquor. All contain one-half ounce of pure alcohol. For every one of these drinks consumed a person's blood

alcohol level will be raised by approximately 0.02. When consumed, alcohol goes right to the stomach and passes through to the small intestine, where it is absorbed into the bloodstream. It takes about 30 seconds for the first amounts of alcohol to reach the brain after ingestion. Once there, alcohol acts primarily on nerve cells deep in the brain. Eliminating alcohol from the body is a long process. About 90 percent must be metabolized through the liver. The remaining 10 percent is eliminated through the lungs and urine. It takes about one hour to eliminate one-half ounce of alcohol.

You can be found guilty of impaired driving if the state can prove:

- * You were presumed impaired while driving, which means your body shows alcohol levels above the state-mandated presumptive limit. Florida's presumptive limit is .08. For persons younger than 21 and commercial motor vehicle operators, the limit is even lower.

- * You were driving while your faculties were presumed impaired by alcohol or a drug: that is, your ability to see, hear, walk, talk and judge distances is below normal as determined by the state. If your alcohol level is lower than the presumptive limit, you can still be convicted if the state can show your normal faculties are impaired.

Keep in mind when you consume alcohol, the amount of alcohol in your body increases as the number of drinks increase. Be aware that impairment begins with the first drink of alcohol. Time is the only way to reduce the amount of alcohol in your body. It takes about one hour to remove one drink from your body.

When do alcohol-related crashes occur?

They happen at all hours, but alcohol involvement in crashes peaks at night and is higher on weekends than on weekdays. Among passenger vehicle drivers who were fatally injured between 9 p.m. and 6 a.m. in 1999, 53 percent had BALs at or above 0.10. This can be compared with 15 percent during other hours. Thirty-nine percent of all drivers fatally injured on weekends (6 p.m. Friday to 6 a.m. Monday) had BALs of 0.10 or more. During the rest of the week, the proportion was 21 percent.

Legal and Financial Consequences of DUI

You can avoid getting behind the wheel if you have been drinking. If you are planning to drink, you should:

- * Designate a driver.
- * Call a cab.
- * Stay at home.
- * Don't drink.

- * Stay overnight where you have been drinking.
- * Call a friend or parent to pick you up.
- * Plan ahead.

If you don't plan before you drink there are some risks you take when driving under the influence. These include: collision, arrest, loss of license, loss of employment, insurance cost, and/or injury or death to you and others. Think before you drink and drive. Don't ruin your life.

*Never serve alcohol to someone under the legal drinking age, and never ask children to serve alcohol at parties.

*Don't let guests mix their own drinks. Choosing a reliable "bartender" will help you keep track of the size and number of drinks that guests consume.

* Never force a drink on a guest!

* Close the bar 90 minutes before the party ends and serve a great dessert treat with coffee. Remember, only time sobers someone who has been drinking.

The penalty for a first DUI conviction is:

- * A fine of \$250-\$500.
- * Imprisonment for up to 6 months.
- * Monthly reporting probation for a period not exceeding one year with a requirement for a minimum of 50 hours of community service work. The total period of imprisonment plus probation may not exceed one year.
- * Completion of any approved substance abuse course specified by the court. 12 hour DUI school that costs \$185. A referral to substance abuse treatment may be required in some cases.
- * Revocation of the driver license for at least 180 days and up to one year.
- * If the offender has an alcohol level of .20 or greater, the possible fine is doubled to between \$500 and \$1,000 and the imprisonment increased to a period of up to nine months.

Other Costs that could be Involved With a DUI Conviction are:

- * Lawyer fees (\$3,000-5,000).

- * Increased insurance premiums (\$1,800).
- * Lost Wages.
- * Court Costs (\$500).
- * Substance Evaluation (\$75).
- * License Reinstatement (\$155).

The total cost for a first DUI conviction could cost you approximately \$8,000. Wouldn't you rather put that money towards other priorities in your life, i.e. down payment on a new car or new home?

If you drive for a living, you may very well suffer the loss of your career.

The Penalty For a Second DUI Conviction Is:

- * A fine of \$500-\$1000.
- * Imprisonment for not more than 9 months. If the conviction is within 5 years of the first, 10 days in jail, 48 hours of confinement must be consecutive.
- * 21 hours of DUI school required at a cost of \$275. A referral to substance abuse treatment may be required in some cases.
- * Revocation of driver license for a minimum of 180 days. If the second conviction is within 5 years, the revocation is for 5 years.

The Penalty for a Third DUI Conviction Is:

- * A fine of \$1000-2500.
- * Imprisonment of not more than 12 months. If the third conviction is within 10 years, there is a mandatory 30 days in jail, 48 hours must be consecutive.
- * 21 hours of driving school at \$275. A referral to substance abuse treatment may be required in some cases.
- * License revocation a minimum of 180 days. If the conviction is within 10 years, there is a 10 year revocation.

After the fourth conviction, fines and penalties increase and there is a permanent revocation of the driver license.

Implied Consent Law

By accepting and using a Florida driver license, a person agrees to submit to a chemical or physical test of their blood or breath alcohol level and a urine test for drugs and other controlled substances when arrested for driving under the influence of alcohol or drugs. A person may refuse to take the tests; this, however, will result in a one-year suspension of the person's driver license for the first refusal or an 18-month suspension for subsequent refusals. These suspensions are in addition to any revocations that may be imposed by the court upon DUI conviction. An individual who is unconscious or otherwise incapable of refusal is deemed not to have withdrawn consent. Non-residents and others who do not have to obtain Florida driver licenses are considered to have expressed consent to the tests by the act of driving in Florida.

Open Container Law

Florida law prohibits the possession of open containers of alcoholic beverages by the driver and passengers of most motor vehicles. An open container is defined as "any container which is immediately capable of being consumed from, or the seal of which has been broken." Open containers must be carried in a locked glove compartment, locked trunk, or other locked non-passenger area of the vehicle. The driver of a vehicle with an open container anywhere else in the vehicle, which is not in the physical control of a passenger, is guilty of a moving violation and subject to a fine of \$60. A passenger found in possession of an open container of alcohol is guilty of a non-moving violation, punishable by a fine of \$30.

Five Basic Groups of Drugs & How

They Affect Your Driving Abilities

"Driving under the influence" doesn't just mean impaired driving. Here are five common groups of drugs and how they can affect someone who uses them. Remember that any drug you take, including prescriptions and over-the-counter medications, can affect your ability to drive safely. Follow the advice of your physician or the label about mixing drugs and driving. Keep in mind that the use of any drug that impairs your ability to drive is illegal.

DEPRESSANTS

Depressants are often referred to as sedative-hypnotic drugs or downers because they depress the functioning of the central nervous system. Small amounts help relax muscles and produce calmness, while larger doses create difficulties with judgment, reflexes and speech.

Some common depressants are:

- * Alcohol
- * Antihistamines, including over-the-counter remedies
- * Barbiturates
- * Tranquilizers

Their effects:

- * Slowed reflexes- reducing ability to react to driving situations, ability to stop quickly, and ability to avoid roadside hazards.
- * Drowsiness – reduces your ability to react to a number of driving situations.
- * Lack of coordination- reducing control of the vehicle including: steering, braking, changing lanes, turning, shifting gears, parking, and stopping.
- * Blurred vision- reducing ability to recognize road signs, signals, pedestrians, and changing driving situations.
- * Reduced concentration- possibly causing inattention to driver responsibilities and negotiation of traffic. This could include driving off the road or crashing into other vehicles. Lack of rational judgment- possibly causing a driver to take foolish chances behind the wheel.

STIMULANTS

Stimulants are used primarily to relieve fatigue and increase alertness. The most widely used stimulants are nicotine, which is found in tobacco products, and caffeine, which is found in soft drinks, coffee and tea. Cocaine and amphetamines are more potent stimulants. People who use stimulants build up a tolerance, which means they have to take larger and larger quantities in order to maintain the desired effects. Greater levels of use increase the likelihood of physical and psychological dependence.

Some common stimulants are:

- * Amphetamines
- * Cocaine
- * Caffeine

- * Pep pills
- * Diet pills

Some drivers use stimulants to stay awake. But stimulants only mask natural fatigue.

Their effects:

- * Overreaction to situations including: over corrections in steering, turning, and braking.
- * A false sense of ability: causing risky driving behaviors.
- * Aggressive driving including: cutting off other drivers, weaving in and out of traffic, and even road rage.
- * Impatient, impulsive driving including: speeding, tailgating and the disregarding of traffic control devices.
- * Nervousness that can result in jittering or shaking, causing the driver to have reduced control of the vehicle.

NARCOTICS

Narcotics are drugs that dull the senses, induce sleep and become addictive with prolonged use. In medical use, the term narcotic refers to opium; narcotic analgesics are often referred to as opioids. The term analgesic refers to the pain-relieving effect of narcotics. Opium, morphine, heroin and codeine are the most commonly used narcotics. Opium is extracted from the seedpod of the opium poppy; morphine and codeine are derived from the substances found in opium. Heroin is a synthetic drug made by modifying the chemicals in opium.

Some common narcotics are:

- * Heroin
- * Opium
- * Morphine
- * Methadone

Their effects:

- * Impaired, blurred or double vision- reducing ability to recognize road signs, signals, pedestrians, and changing driving situations.
- * Slowed reaction time- reducing ability to react to driving situations, ability to stop quickly, and ability to avoid roadside hazards.
- * Poor concentration- possibly causing inattention to driver responsibilities and negotiation of traffic.
- * Impaired motor skills- reducing the ability of the driver to operate his vehicle properly.
- * Risky and unpredictable behavior- increasing the likelihood of the driver making rash decisions such as: improper passing, turning without notice, tailgating, and disregard for traffic control devices.

HALLUCINOGENS

Hallucinogenic drugs are natural and synthetic drugs that distort the perception of reality and affect thought processes. The main forms of hallucinogenic drugs are phencyclidine (PCP), lysergic acid diethylamide (LSD), and organic drugs which include mescaline and psilocybin.

Some hallucinogens are:

- * LSD
- * Mescaline
- * PCP

Their effects:

- * Unpredictable aggressive, violent or high-risk behavior including: cutting off other drivers, weaving in and out of traffic, and even road rage.
- * Visual distortion, reducing the ability to discern correct path of travel, road signs, pedestrians, and other obstacles.
- * Time and distance distortion, affecting the ability to judge stopping distance and speed in relationship to surroundings.
- * Impaired short-term memory.

- * Delayed reaction time, reducing the ability to react properly to driving situations.
- * Disorientation, creating a sense of panic and a loss of reality in the driver.

CANNABIS

Cannabis is a plant that grows mainly in tropical and subtropical climates and has been used as a drug for centuries. The main forms of cannabis are marijuana and hashish. Marijuana is produced by drying the tops and leaves of the cannabis plant. Hashish is a concentrated form of marijuana made from the resin secretions of the cannabis plant. Tetrahydrocannabinol (THC) is the most significant psychoactive chemical ingredient found in cannabis. The level of THC determines the potency of the drug.

- * Marijuana
- * Hashish

Their effects:

- * Slowed reaction time, reducing ability to react to driving situations, ability to stop quickly, and ability to avoid roadside hazards.
- * Impaired short-term memory.
- * Poor concentration possibly causing inattention to driver responsibilities and negotiation of traffic.
- * Poor decision making including: improper passing, turning without notice, tailgating, and disregard for traffic control devices.
- * Time and distance distortion, affecting the ability to judge stopping distance and speed in relationship to surroundings.
- * Poor visual and depth perception, affecting the ability to judge stopping distance and speed in relationship to surroundings.

The following are some common questions about drug use and driving:

Do Prescription Drugs Affect Your Ability to Drive?

Prescription drugs include cough medicine, antihistamines, barbiturates, and tranquilizers. Drivers often fail to recognize that many drugs as prescribed by a physician have warning labels attached noting alcohol consumption with the drug could be very dangerous. In addition, many of these drugs warn not to operate a motor vehicle when the dosage can cause drowsiness, light-headedness, slower reactions, intensified emotions, impaired judgment, and reduced concentration and coordination. A driver,

pulled over under the influence of codeine, is still breaking the law, as he/she is driving under the influence. Drivers must be aware of what prescription medicine they are taking and the effects of each.

Are Over-The-Counter medications dangerous?

Many over-the-counter medications contain alcohol, sedatives and related substances that are not conducive to driving. Drivers must be aware of what is in these medications they are taking and that these substances could impair the ability to drive.

What is the synergistic effect?

The synergistic effect happens when you combine the intake of two or more drugs at the same time. The effect is different with each combination (each time and individual). The most dangerous aspect of synergism is the additive effect. Alcohol plus sleeping pills can have a dramatically greater effect than either drug alone. A one plus one combination could equal four. Each drug compounds the effect of the other, further altering the driver's ability to operate a motor vehicle.

Which drugs are most likely to affect crash risk?

According to a 1988 report from the National Highway Traffic Safety Administration, the drugs with "the most potential to be serious highway safety hazards" are tranquilizers, sedatives, marijuana and hypnotics such as barbiturates.

What is the potential contribution of drugs to motor vehicle crashes?

There is not much information on drug use among drivers or on driver impairment by drugs other than alcohol. Information on drivers' drug use comes primarily from tests on people killed in crashes or hospitalized with crash injuries. Most such studies have found drugs other than alcohol among fewer than 10 percent (usually fewer than 5 percent) of fatally injured or hospitalized car drivers. Also, drugs other than alcohol are infrequently found alone. They are more often found in combination with high blood alcohol concentrations. Drivers' apparently low use of drugs other than alcohol, especially without using other drugs simultaneously, limits the potential contribution of knowledge of how such drugs influence the motor vehicle crash problem.

A 1992 federal study revealed that 18 percent of fatally injured drivers have other drugs in their systems, but that these drugs are most often combined with alcohol. Alcohol was found in 52 percent of 1,882 fatally injured drivers. Forty-three percent had blood alcohol levels of 0.10 or more. Only 6 percent had drugs without alcohol, and researchers found no evidence that drivers with drugs but no alcohol are more likely to be responsible for their crashes, compared with drug-free drivers. The researchers did find drugs related to crash responsibility when combined with alcohol or when two or more drugs were found.

A 1993 study published in the "New England Journal of Medicine" focuses on drivers without alcohol in their systems who were stopped by police for reckless driving. Urine tests revealed 45 percent had marijuana and 25 percent had cocaine in their systems. Although the authors suggest these findings show drugs to be a bigger problem than alcohol, the data did not allow for this conclusion. All studies that have appropriately addressed the issue have found alcohol to be by far the greater problem.

Are drugs other than alcohol a problem for any particular groups of drivers?

A study of interstate tractor-trailer drivers found that 29 percent had evidence of alcohol, marijuana, cocaine, prescription or nonprescription stimulants, or some combination of these, in either blood or urine. Marijuana was found in 15 percent of the drivers' blood or urine. Nonprescription stimulants were found in 12 percent, prescription stimulants in 5 percent, cocaine in 2 percent, and alcohol in fewer than 1 percent. A National Transportation Safety Board investigation of fatal truck crashes found that stimulants were the most frequently identified drug class among fatally injured truck drivers, present in 15 percent of the drivers.

The extent of driver impairment attributable to drugs other than alcohol is uncertain because of the complex relationship between performance and drug concentrations. The effects of marijuana on driver behavior and crash risk at the concentrations detected are not known because the psychological and behavioral effects of marijuana often occur after the blood concentrations of its principal psychoactive component have peaked and returned to very low levels.

Estimating the effect of stimulants is also complicated. It is possible that occasional use of such substances may in the short term enhance the performance of some tasks by increasing alertness, but some tractor-trailer drivers may use these drugs to continue on the road for prolonged periods. Use of stimulants for this purpose is probably frequent and sustained, not occasional, and thus is potentially dangerous.

Driving Distractions

Along with driving impaired, driving while distracted contributes to a vast number of automobile crashes. With the multitude of decisions you must make as a driver, it is so important that you do not allow yourself to have your attention drawn away from your driving to things that are going on inside of the vehicle.

Passengers can be very persuasive in taking the attention of the driver away from the task at hand. Turning your head to have a conversation with a passenger or to point out a landmark could take away your concentration long enough to put you at risk of crashing.

Teenage drivers are especially at risk when transporting passengers. The reason for this is that many young drivers are influenced by their peers to engage in unsafe driving practices. From hanging out of the window, to even punching or grabbing the driver, young passengers bring dangerous behaviors that can contribute to driver error.

It is essential that you, as the driver, are in charge of your vehicle. Set rules for your passengers and insist that they do not engage in activities in your vehicle that might take your attention away from your job. Remember that it is your responsibility to deliver your passengers safely to their destinations.

Smoking or eating while driving can also distract drivers. You have probably seen people rolling down the highway with one hand on the wheel smoking a cigarette or with their faces buried in a hamburger. While these are only two examples of multitasking behaviors that drivers engage in, they do represent a real problem on our roads. If you must engage in a behavior that takes your hands off of the steering wheel, take time to find a safe place to stop first. This delay in your trip could possibly save your life.

Electronic Distractions

A new piece of equipment that has recently been the center of many safety debates is the cellular phone. Along with in-car dining, entertainment systems and adjustment of dashboard controls, cellular phones and other forms of wireless technology create distractions that increase a driver's risk on the highways. The rising popularity of cellular phones and the development of on-board navigation systems, portable facsimile machines and other wireless technologies for the car heighten the concern about driver distraction.

The number of cellular phones has risen dramatically. Significant growth is also expected with other technologies, including on-board navigation systems that are expected to proliferate through Intelligent Transportation System (ITS) development.

While more research is needed, the NHTSA already understands a great deal about the role of distractions in highway crashes. Previous NHTSA studies suggest that driver inattention is a primary or contributing factor in as many as 50 percent of all crashes.

If possible, pull off the road in a safe place and use your phone.

Car radios, compact disk players, and video players are three additional electronic entertainment devices that cause distractions to drivers. The most common crash with these involved occurs when the driver takes his/her eyes from the road to change a station or adjust the volume on an electronic device. This brief instant is long enough for road conditions to change. Often, the driver actually runs off the road while engaging in this behavior. It is critical that the driver of the vehicle must keep his/her eyes on the road while changing a station on the radio. Become familiar with the layout of your vehicle in order to make any adjustments to electronic entertainment devices by feel rather than by sight.

Tailgating

While tailgating sounds like a fun pastime that takes place in a parking lot before a football game, it is actually a dangerous driving habit that many drivers practice on our roadways. Following another vehicle too closely can, and often does, create hazardous situations. Many drivers become scared or even angry when they are being tailgated. There are a few things you can do to diffuse this potentially dangerous situation. You can slow down or change lanes to allow the vehicle to pass. Remember that you cannot control the actions of the driver behind you. Make it a point to get the tailgater in front of you where you can see and react to what is going on. If the tailgater does not pass you, drive to a well-lighted public area. If the tailgater continues, drive to the nearest police department.

How do you prevent yourself from becoming a tailgater? Keeping a safe following distance is very important but overlooked by many drivers. By allowing enough space between your vehicle and the one in front of you, you are increasing the likelihood that you will have enough time to react to a possibly disastrous situation. Your safe following distance depends upon how fast you are traveling, road conditions, and the type of vehicle you are driving. Trucks and sports utility vehicles generally take longer to stop than do passenger cars. Keeping a safe following distance also allows the driver to scan the road ahead and to be alert for potential problems.

Passing

Due to the ever-changing variables and calculations we must make as drivers, passing is one of the most dangerous driving maneuvers we perform. One of the most common causes of deadly head-on collisions is improper passing. Before undertaking any pass, ask yourself, "Will passing this car make any difference in my trip?" When getting ready to pass another car, maintain a safe following distance. Make sure to signal before passing and continually scan the road ahead and behind.

The laws regarding passing are very clear:

1. No vehicle shall at any time be driven to the left side of the roadway under the following conditions:
 - a) When approaching or upon the crest of a grade where the driver's view is obstructed within such distance as to create a hazard in the event another vehicle might approach from the opposite direction;
 - b) Upon a curve in the highway where the driver's view is obstructed within such distance as to create a hazard in the event another vehicle might approach from the opposite direction;
 - c) When approaching within 100 feet of or traversing any intersection, except that this shall not apply to any intersection on a state-maintained or county-maintained highway located outside city limits unless such intersection is marked by an official Department of Transportation or county road department traffic control device indicating an intersection

either by symbol or by words and such marking is placed at least 100 feet before the intersection;

- d) When approaching within 100 feet of or traversing any railroad grade crossing;
- e) When the view is obstructed upon approaching within 100 feet of any bridge, viaduct, or tunnel.

2. The foregoing limitations shall not apply upon a one-way roadway, nor when an obstruction exists making it necessary to drive to the left of the center of the highway, nor to the driver of a vehicle turning left into or from an alley, private road or driveway.

Passing should be attempted only when it is safe to do so. Each passing situation is different, and the driver should be aware of the following:

- * Check the path ahead, the off-road areas, behind you, and the lane you want to enter. Make sure that no other vehicles are signaling to move into the lane. If you are on a two lane, two way road, check that there are no oncoming vehicles. If there are, make sure that they are far enough away to allow you to complete passing safely. If you have any doubt, don't pass.
- * If the way is clear, signal your intent to move left. Use your turn signals.
- * Check over your left shoulder for cars in your blind spot. Adjust your speed upward if necessary (but do not exceed the speed limit) and steer smoothly into the passing lane.
- * Accelerate firmly. If you are on a road with a single lane in each direction, keep watching for oncoming traffic.
- * Check your rearview mirror quickly. When you see both headlights of the vehicle you have passed in the mirror, signal your intent to return to the right lane, and steer gradually in that direction.
- * Turn off your signal, and maintain an appropriate speed.

Attitude and Emotional State of the Driver

Your attitude and emotional state while driving greatly influences your ability to make proper decisions. Stress creates physical and mental fatigue, slowing your reaction time. We all know that physical conditions such as fatigue or eyesight problems can affect your ability to drive safely. Mental conditions such as emotional distress, stress or attitude also greatly affect your driving. Knowing that a condition exists is the first step toward controlling its effect on your driving. If you recognize the signs of emotions, attitude, or excess stress, ask yourself what you can do to keep calm. Some attitudes make us better

drivers. Others, such as aggressiveness or inattentiveness, can get in the way of our safety. It could well be said that personal frustration, anger, and testosterone are the most dangerous drugs on the highway.

Having and maintaining a good attitude while driving will help you through a myriad of driving situations. This attitude could also save your life. When you set out to drive your car, allow plenty of extra time to reach your destination and make up your mind to remain calm and watchful. If you encounter slow traffic or bad drivers, remain patient and don't take the actions of other drivers personally. This will help reduce your stress response.

The stress response is too easily triggered in today's complex, hurried world. Many individuals, especially those under chronic unrelenting stress, overreact sometimes with anger, outbursts or rage. When chronically stressed, we tend to react to minor frustrations and disappointments as though they were major crises or threats. The anger response triggers the "fight or flight" stress response and floods our bodies with adrenaline and many other stress chemicals. Chronic irritability, anger, and hostility are potentially harmful to our bodies, especially our cardiovascular system, and can result in high blood pressure or an unexpected fatal heart attack.

Besides hurting our mental and physical health, inappropriate or excessive outbursts of anger can have a disastrous effect on your ability to drive. Emotions influence the way you think and act. When emotions affect your thoughts and actions, they can change the way you normally drive. Strong emotions can interfere with your ability to think and reason. When strong emotions affect you, your ability to make decisions is reduced. Your chances of making a mistake increase. The effect that an emotion has on your ability to drive depends upon the strength of the emotion and the effort you make to resist the effects of the emotion. In some situations, a strong emotion can cause you to fix your attention on one event. You might miss other important events in the driving scene.

Strong emotions also affect your body functions. Under emotional stress, your heartbeat and breathing increase, your digestion slows, and your palms sweat. Continued emotional stress, such as driving in rush hour traffic, can exhaust you and the other drivers on the road. Sorrow, depression, and anxiety are other emotions that can adversely affect driving. These emotions slow body processes and reduce mental alertness.

Reduce your stress:

- * Allow plenty of time for the trip.
- * Listen to soothing music.
- * Improve the comfort in your vehicle.
- * Understand that you cannot control the traffic, you can only react to it.

Techniques for coping with emotions. High-stress driving situations can cause emotions to surface. The following techniques can help you to control your emotions while driving in a variety of situations:

- * Drive in an organized manner. Learn and use correct driving procedures until they become habits. You then will be more likely to execute the right action, even under emotional stress.

- * Anticipate emotion-producing situations. Say to yourself, "I know there will be delays during rush hour, so I will adjust the amount of time that it will take me to get home. I will not let the actions of others bother me."

- * Stop regularly for light refreshments. Walk or jog.

- * Open a window for fresh air.

- * Wear sunglasses in bright sunlight and for snow glare.

- * Use the orderly visual search pattern to keep your eyes moving.

- * Listen to the radio, sing, or talk with your passengers.

Dealing With Emotional Distress:

A driver, who is emotionally distressed, is much more likely to be involved in collisions, when compared with a well rested, clear headed driver. A driver with a disturbed mind is also more likely to be involved in a fight or road-rage incident.

When emotions disturb you, you should:

- * Breathe deeply.

- * Take a break from driving.

- * Take a walk.

- * Try to remove yourself from the cause of your distress.

- * Talk with someone about your feelings.

- * Above all, don't drive in this altered state of mind.

Aggressive Drivers

Reports of violent traffic incidents have increased nearly 7 percent per year since 1990. According to a study done by Mizell & Co. based on 10,037 separate incidents of aggressive driving between January 1, 1990 and September 1, 1996, a total of 12,828 people were injured or killed as the result of aggressive driving, with 218 killed, 12,610 injured. This includes 94 children under the age of 15. "Yet this is only the small tip of a very large iceberg," says David K. Willis, President of the AAA Foundation for Traffic Safety. "For every aggressive driving incident serious enough to result in a police report or newspaper article, there are hundreds or thousands more which never got reported to the authorities."

Who are aggressive drivers?

The majority of aggressive drivers are males between the ages of 18 and 26. In hundreds of reported cases, however, the aggressive driver was 26 to 50 years old, and in 86 known cases, the driver was between 50 and 75 years old.

There is no one profile of an "aggressive driver." Most are relatively young, poorly educated males with criminal records, histories of violence, and drug or alcohol problems, and many have recently suffered an emotional or professional setback. Hundreds of others, however, are successful men and women with no such histories.

While most of the drivers in this study were male, 413 or approximately 4 percent of the recorded incidents involved female drivers. Women used their vehicle as a weapon in 285 cases. In 31 known cases, women attacked police officers, usually while the officer was attempting to issue a traffic citation.

What causes aggressive driving?

The precipitating incidents are often remarkably trivial. Stated reasons for violent traffic disputes include arguments over parking spaces, cutting another motorist off or refusing to allow passing, minor traffic crashes, obscene gestures, loud music, overuse of the horn, slow driving, tailgating, failure to use a turn signal and similar behaviors. Violent traffic disputes are rarely the result of a single incident, but rather are the cumulative result of a series of stresses in the motorist's life. The traffic incident that turns violent is often "the last straw."

What types of weapons are involved in incidents?

The most common weapons used in traffic altercations are firearms and motor vehicles. In approximately 44 percent of violent traffic altercations the perpetrator used a weapon such as a firearm, knife, club, or tire iron. In 23 percent, the aggressive driver used the vehicle as a weapon. More unusual weapons included pepper spray, eggs, golf clubs, and, in one instance, a crossbow.

How Can Motorists Protect Themselves?

Never underestimate another driver's capacity for mayhem. Be patient and keep your cool in traffic. The best way to avoid being the target of an aggressive driver is to practice basic traffic courtesy. Use the following methods in possibly volatile situations:

- * Do not make obscene gestures.
- * Use your horn sparingly.
- * Do not block passing lanes.
- * Do not switch lanes without signaling.
- * Avoid blocking the right-hand turn lane.
- * Do not take more than one parking space.
- * If you are not disabled, do not park in a disabled space.
- * Do not allow your door to hit the car parked next to you.
- * Do not tailgate.
- * If you travel slowly, pull over and allow traffic to pass.
- * Avoid unnecessary use of high beam headlights.
- * Do not let the car phone distract you.
- * Do not stop in the road to talk with a pedestrian or other driver.
- * Do not inflict loud music on neighboring cars.

Other Useful Attitudes:

- * Assume other drivers' mistakes are not personal attacks upon you.
- * Be polite and courteous, even if the other driver is not.
- * Avoid all conflict if possible. If another driver challenges you, take a deep breath and get out of the way.

Many otherwise peaceful motorists become enraged road warriors when they get behind the wheel. If you are one of them, be advised that cars are not bullet proof, that a truly aggressive driver will follow you home, and that you have to get out of the car eventually.

Some states have a cellular telephone number that motorists can use to report dangerous driving to the state police or highway patrol. If you have a cellular telephone, call 9-1-1 or *FHP when you see a driver behaving in a threatening manner. You could prevent a tragedy.

Finally, if you are tempted to participate in a driving duel, ask yourself, "Is it worth being paralyzed or killed? Is it worth a jail sentence?" An impulsive action could ruin the rest of your life.

Fatigue-The Silent Killer

Dealing With Fatigue

Falling asleep behind the wheel kills more people than you may realize. Fatigue and drowsiness may occur when you are tired, stressed or under a tight schedule. Heavy traffic or bad weather can also bring on fatigue. Allow time for rest stops. Ask your passenger to stay awake and talk with you. According to the NHTSA, drowsy driving is a factor in approximately 100,000 crashes per year, resulting in about 1,500 fatalities. The NHTSA derived its statistics from police crash reports filed on 6.3 million crashes between 1989 and 1993: the actual number of drowsy-driving collisions may be higher. According to the National Sleep Foundation (NSF) most people need seven or eight hours of sleep. But the NSF's "1998 Sleep Survey" found that nearly one in three Americans sleeps only six hours or less during the work week. Even more ominous is a 1998 NSF-sponsored poll showing that 57 percent of adults have driven while drowsy. Twenty-three percent of those surveyed reported actually falling asleep at the wheel in the past year.

Nearly everyone experiences fatigue at times. It affects your body and your mind. Your senses are impaired, and you are not as alert as you should be. You may not see objects clearly. You might miss critical information (signs, lights, and sounds). You may misjudge speed and distance or take needless risks. You may even drift into a state of "highway hypnosis" or even fall asleep behind the wheel.

The NSF contends that drowsy driving is as dangerous impaired driving and that there is little awareness of the problem. Contrary to popular belief, most drivers cannot tell when they are getting sleepy. It is best to take long trips with someone else in the car so that they can watch for signs of sleepiness. If you have not been getting enough sleep, you are already at risk.

If you experience any of the follow danger signs, you should pull over and rest:

- * Your eyes close or go out of focus by themselves.
- * You have trouble keeping your head up.

- * You cannot stop yawning.
- * You have wandering, disconnected thoughts.
- * You do not remember driving the last few miles.
- * You drift between lanes, tailgate, or miss traffic signs.
- * You keep jerking the car back into the lane.
- * You have drifted off the road and narrowly missed crashing.

Tips for staying awake and alive:

- * Get enough sleep. Make sure you get a good night's sleep before you start out on your trip. Drive during times of the day when you are normally awake and stay overnight rather than driving straight through.
- * Avoid "down-times." Do not drive during your body's natural sleepy periods. Take a mid-afternoon break and find a place to sleep between midnight and 6 a.m. This is the time when most fatigue-related crashes take place.
- * Yak it up. If you have a passenger, make sure to talk. Because it is hard to detect yourself, your passenger can let you know when you are showing signs of sleepiness. Listen to his/her warnings. Either let your passenger drive or pull over and take a nap.
- * No sleeping in the front. Make sure both people in the front of the car are awake. A passenger who needs rest should buckle up in the back seat and sleep.
- * Take a break. For long trips, take a break every two hours or 100 miles. If you show signs of sleepiness, stop sooner.

This completes the reading for Chapter 4. The Department of Highway Safety Motor Vehicles requires that each chapter is 50 minutes. If you have finished reading the materials in this chapter please review any sections that you would like to read again or just be patient until your timer reaches 0 minutes. When your timer reaches 0 minutes please hit the button below that says "Save Time & Go To Menu" and this will allow you to continue with the Final Exam.

Please remember that the Final Exam is a 40 Question Test and you need 32 Answers (80%) or better to pass. If you get less than 80% we will let you re-take the exam for free. Please do not stress out about the test. Our main goal is to provide you with the basic

driving skills and knowledge that you need when driving on the roads. Reducing accidents is our main objective and we hope that you enjoyed our course.