

## CHAPTER 3: LEARNING TO DRIVE

This chapter provides information that will help you become a safe driver. It covers these topics:

- Choosing Safety First
- Driver Factors
- Everyday Driving Skills
- Special Circumstances and Emergencies

### CHOOSING SAFETY FIRST

You have important choices to make – sometimes even before you start your vehicle – that will affect your safety when you are behind the wheel. Begin by making sure you and your vehicle are “fit to drive.”

#### VEHICLE CHECKS: PREPARING TO DRIVE

1. **Adjust the driver's seat** – You must be able to easily reach the pedals and other controls and have a clear view out the windshield. Your owner's manual provides information about how to adjust your vehicle's equipment.
2. **Fasten your seat belt** – Fasten both your lap and shoulder belts on every trip. Pay attention to the information about Pennsylvania's seat belt law, child restraint law and airbag safety information found in Chapter 5.

**WEARING YOUR SEAT BELT**  
is the single most effective  
thing you can do to reduce  
the risk of death or injury!

#### DID YOU KNOW?

In 2009, 77 percent of people involved in crashes in Pennsylvania were wearing seat belts. Drivers, ages 16 to 25, had the highest number of unbuckled injuries and fatalities of any age group and the lowest seat belt use.

3. **Secure loose items in the passenger compartment** – In a crash, loose items in your vehicle become projectiles that continue to travel the same speed your vehicle was moving before the impact. Put heavier objects, such as backpacks, luggage and tools in your trunk, whenever possible, or secure them with the vehicle's seat belts. Never store items on the rear window deck.
4. **Adjust the rearview and side mirrors** – To remove blind spots around your vehicle, the rearview and side mirrors may have to be adjusted differently for each driver. The rearview mirror should be set so you can see the traffic directly behind your vehicle. The side mirror(s) should be set so when you lean left/right slightly you can just barely see the side of your vehicle. Set the mirrors after you adjust your seat.

**Note:** It is against the law to have any object or material hanging from the rearview mirror while moving. You may not hang, place or attach anything to the rearview mirror that might block or impair vision through the front windshield. Tags, permits and placards may only be attached to the rearview mirror when the vehicle is parked.

5. **Windshield** – It is against the law to place anything on the front windshield that blocks a driver's view of the roadway.
6. **Adjust ventilation** – You should maintain a constant supply of fresh air in your vehicle. This helps you stay alert and guards against carbon monoxide (exhaust gas) poisoning when you drive.
7. **Adjust head restraints** – A head restraint that properly cushions the back of your head can prevent or reduce the severity of neck injuries in a crash. Adjust your head restraint so the top of the head restraint is at least as high as the top of your ears. Check your owner's manual for instructions.
8. **Wear your prescription glasses/contact lenses** – If you normally wear corrective lenses, always wear them while driving. Do not wear sunglasses or tinted contact lenses at night.
9. **Lock your doors** – Locking your doors and wearing your seat belt will help to ensure you will not be thrown from your vehicle in a crash. Being thrown from a vehicle increases your chances of death by 75 percent. It will also reduce the likelihood of being carjacked or otherwise victimized when you stop at an intersection or pull into a parking lot.

## DRIVER FACTORS

Your vehicle may be ready to go, but your safety depends just as much on the following driver factors.

### INATTENTION

Inattention great enough to cause a crash can result from driving distractions or lack of sleep.

#### DID YOU KNOW?

Driver distraction and inattention to road and traffic conditions are responsible for 25 to 30 percent of police-reported traffic crashes. This adds up to approximately 1.2 million crashes every year.

### DRIVING DISTRACTIONS

Anything that causes you to **1)** take your attention away from driving, **2)** take your eyes off of the road or **3)** take your hands off of the wheel is a distraction. You will not be able to react as quickly if you are:

- Eating, drinking and smoking. These all create safety problems because they often require you to take your hands off of the wheel and take your eyes off of the road. Drivers who eat or drink while driving have trouble controlling their vehicle, staying in their lane and have to brake more often.
- Adjusting audio devices such as: radio, cassette, CD, Ipod/Mp3 player. NOTE: headphones/ear pieces can only be used in one ear for communication purposes.
- Talking on a cell phone (whether it is hands-free or not).
- Interacting with other passengers. This can be just as much of a problem, particularly for teenage drivers. **If you are a teen driver with other teens as passengers, statistics show you are more likely to have a crash than if you are driving alone or are driving with adult passengers.**
- Searching for or moving an object in the vehicle.
- Reading, writing or texting.
- Personal grooming (combing hair, applying makeup).
- Rubbernecking when passing a crash scene or a work zone.
- Looking at people, objects or events happening off of the roadway.

#### DID YOU KNOW?

Research has found a normal, undistracted driver fails to notice an important road event such as another driver making a mistake, three (3) percent of the time. An adult dialing a cell phone misses the same event 13 percent of the time. A teenager dialing a cell phone misses it 53 percent of the time.

### LACK OF SLEEP

When you are tired, you react slower, your judgment and your vision are impaired, and you have problems with understanding and remembering things. Driving while fatigued has similar effects as driving under the influence of alcohol. Being awake for 18 hours impairs your driving about as much as a blood alcohol level of .05 percent. Being awake for 24 hours in a row impairs your driving as much as having a blood alcohol level of .10 percent. If you are tired enough, you may fall asleep and never even know it. Sleeping behind the wheel for even a few seconds is enough to kill you. Teens who sleep less than eight (8) hours a night are at increased risk for vehicle crashes. **The best thing to do if you begin to feel tired while driving is to stop driving.**

#### DID YOU KNOW?

- Every year across the U.S., falling asleep while driving causes at least 100,000 crashes.
- 1,500 people die and 40,000 are injured in these crashes.
- **Of the 100,000 vehicle crashes linked to drowsy driving each year, almost half involve drivers between 15 and 24 years of age.**

## HEALTH FACTORS

Your driving safety can be affected by problems with vision, hearing or medical conditions.

- Have your vision checked every one (1) or two (2) years. Your peripheral (side) vision, your distance judgment and your ability to see in low light conditions can deteriorate due to disease and as a normal part of the aging process. You will not always know this and be able to take corrective action, unless your vision is examined regularly. If you need to wear glasses or contacts, make sure you use them every time you drive.
- Hearing can warn you of dangers you do not see, like another vehicle in your blind spot. Hearing is also important to let you know an emergency vehicle (police, fire, ambulance) is approaching or to detect a train at a railroad crossing.
- Various diseases and medical conditions, even little problems like a stiff neck or sore knee, can have a serious impact on your ability to control your vehicle effectively. The most dangerous health problems include seizure disorders that cause loss of consciousness, diabetes and heart conditions. In Pennsylvania, physicians must report to PennDOT individuals whom they have diagnosed as having a condition that could impair their ability to drive safely.

## ALCOHOL AND DRIVING

- In Pennsylvania and across the nation, drinking drivers are responsible for thousands of traffic deaths and injuries. Approximately 40 percent of all traffic deaths involve drinking drivers.
- Recent Pennsylvania statistics show that 30 percent of drivers ages 16 to 20 who died in motor vehicle crashes had been drinking. This is despite the fact that here in Pennsylvania, as well as in every other state in the U.S., there are **zero tolerance laws**, meaning you may not drink if you are under age 21.
- If you are a driver under age 21 and your blood alcohol concentration (BAC) is .02 percent or more, you are considered to be driving under the influence (DUI).
- Even the smallest amount of alcohol will reduce your concentration, perception, judgment and memory, and your driving skills will suffer. **No one can drink and drive safely.**
- As alcohol builds up in your blood, your driving errors will increase. Your vision and judgment will be affected, your reactions will slow down, and you will lose your ability to control your vehicle safely and effectively. And, at the same time, alcohol robs your skills, making you feel dangerously confident. So, drinking drivers can be out of control and not even know it.
- Many people believe only heavy drinking is risky. This is not true. Even drivers whose blood alcohol level is .04 (half of the "legal limit" of .08 for an adult 21 years of age or older) are between two (2) and seven (7) times more likely to be involved in a crash than drivers who have no alcohol in their blood. Even if your blood alcohol level is well below the legal limit, you will still endanger your life and the lives of others. **The only safe amount of alcohol you can drink, and then drive, is zero.**
- Alcohol affects individuals differently. Your blood alcohol level is affected by your age, weight, gender, physical condition, amount of food consumed, and any drugs or medication you have in your system. In addition, different drinks may contain different amounts of alcohol too. Make sure you know how much alcohol is in the drinks you consume. You should consider one (1) drink to be  $\frac{1}{2}$  oz. of 80 proof liquor, 12 oz. of regular beer, or 5 oz. of wine.
- To manage your drinking responsibly, do not drink more than one (1) drink per hour, if you are of legal drinking age. It takes a person of average weight at least one (1) hour to process the alcohol in every drink. More than one (1) drink per hour is very likely to push your blood alcohol level over the legal limit.

### DID YOU KNOW?

In the U.S., one (1) person dies every half hour and one (1) person is injured every two (2) minutes, because someone was drinking and driving.

- The one (1) drink per hour rule does not work for everybody, though. Alcohol is more concentrated in smaller people, and because of the differences in the way our bodies process alcohol, a woman drinking an equal amount in the same period of time as a man of the same weight may have a higher blood alcohol level.
- Only time will “sober you up.” You cannot reduce your blood alcohol concentration level by drinking coffee or other caffeinated beverages, or by taking a cold shower.

**DID YOU KNOW?**

A female who weighs 110 pounds will have a BAC of .03 after drinking just 8 oz. of light beer – that’s less than one full bottle or can. A 140-pound male will have a BAC of .025 after a full 12 oz. bottle or can of light beer.

**PLAY IT SAFE.**

DO NOT DRIVE AFTER DRINKING ANY AMOUNT OF ALCOHOL, AND KEEP THE DRINKER FROM DRIVING!

Refer to Chapter 4 for more information about the penalties for underage drinking and driving under the influence.

**DRUGS AND DRIVING**

Drugs other than alcohol are involved in approximately 20 percent of deaths among motorists each year. Whether they are illegal, prescription or over-the-counter drugs affect your brain function and can seriously impair your ability to drive safely. Combining drugs and alcohol will increase the risk of causing a crash.

**EVERYDAY DRIVING SKILLS**

This section begins by highlighting the particular causes of crashes and major crash types among new drivers in Pennsylvania. The safe driving skills listed below are described in this section:

- Managing Space
- Managing Speed
- Turning, Merging and Passing
- Negotiating Intersections
- Negotiating Curves
- Negotiating Highways and Interchanges

**Most crashes result from human error.** Either the driver fails to understand how to use the vehicle or the highway system, is not paying enough attention to signs, signals, pavement markings or to the actions of other drivers, or makes poor decisions. Drivers with less than five (5) years of experience are most likely to make errors that lead to crashes.

**TEEN CRASH FACT**

For 2009, one (1) out of seven (7) 16 year old drivers were in reportable crashes.

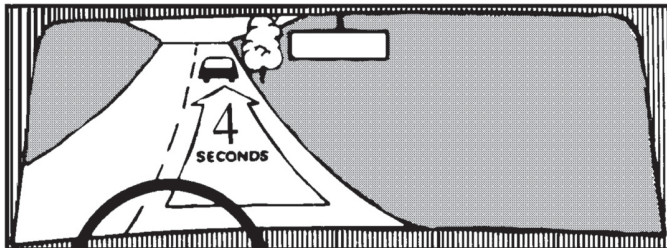
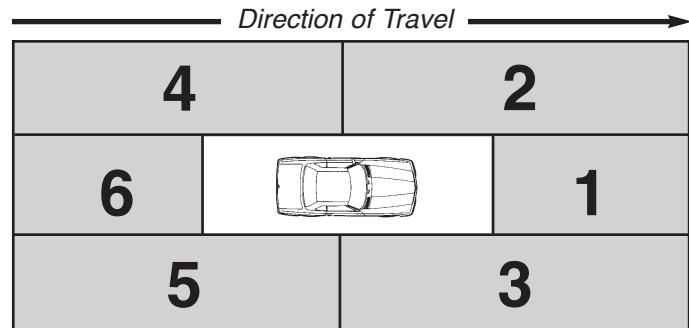
- A review of the top 10 reasons new drivers in Pennsylvania (16- and 17-year-olds) ended up in crashes in 2009 is shown below. Young drivers and all drivers should be aware of these critical factors:

- **Driving too fast for conditions**
- **Proceeding without clearance after stopping**
- **Improper or careless turning**
- **Improper driving**
- **Inexperience**
- **Tailgating**
- **Speeding**
- **Over or under compensating at a curve**
- **Distractions**
- **Sudden slowing or stopping**

- The major types of crashes in which new drivers (16 and 17-year olds) in Pennsylvania are involved include:  
**1)** Hitting a stationary object; **2)** Crashes where roads intersect, like driveways, entrance ramps, and in intersections; **3)** Rear-end collisions; and **4)** Head on collisions. About 92 percent of all crashes and 93 percent of the deaths resulting from crashes are associated with just these four (4) crash types. Avoiding vehicle crashes depends on learning and applying the safe driving skills that are the subject of this chapter.

## MANAGING SPACE

- If another driver near you makes a mistake, you will need time to react to the situation. The only way to be sure you will have enough time to react is to leave plenty of space between you and the vehicles around you.
- As shown in the diagram to the right, there are **six (6) areas of space** around your vehicle you must be able to manage.
- It is best to keep a space cushion on all sides of your vehicle.



### KEEP A SPACE CUSHION AHEAD (4-SECOND RULE)

- What is a safe following distance? A 4-second following distance, as shown above in **Area 1** of the space management diagram, will allow you to steer or brake to avoid a hazard safely on the highway, if the pavement is dry.
  - If you are following too closely and the vehicle ahead of you stops or slows suddenly, you will not be able to avoid a crash.
  - Keeping a safe following distance will enable you to react to a problem ahead without the need for a panic stop, which could cause a following driver to crash into the back of your vehicle.
  - To determine your following distance, watch the rear bumper of the vehicle ahead of you. When the bumper passes a road marking or a roadside object like a telephone pole, start counting how many seconds it takes you to reach the same spot on the road. If you pass the marking or object in less than four (4) seconds, you are following too closely.
- Sometimes you will need extra space ahead of you.**
- Allow a longer following distance than usual when:**
- Traveling on roads that are wet and slippery, or not paved - there is less traction, so it takes longer to stop.
  - The driver behind you wants to pass - there must be room ahead of you for the passing driver to pull in front of you.
  - You are following a driver whose rear view is blocked - drivers of trucks, buses, vans, or cars pulling campers or trailers may slow down suddenly without knowing you are behind them.
  - You are following a large vehicle blocking your view ahead - you need extra room to see around the vehicle.
  - You are following a driver who is carrying a heavy load or pulling a trailer - the extra weight will make it more difficult to stop.
  - Approaching slow moving vehicles, including bicycles.
  - You are following school buses, taxis, public and private buses and trucks transporting hazardous substances - these vehicles must stop at railroad crossings and make other, unexpected stops.
  - You are driving downhill - it is harder for your brakes to slow your vehicle, especially at high speeds.
  - You are stopped on an uphill - the vehicle ahead may roll back into your vehicle when traffic begins to move.

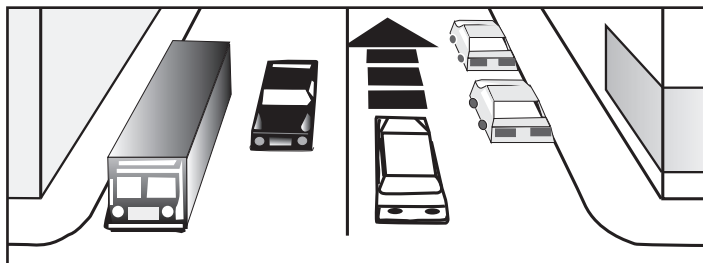
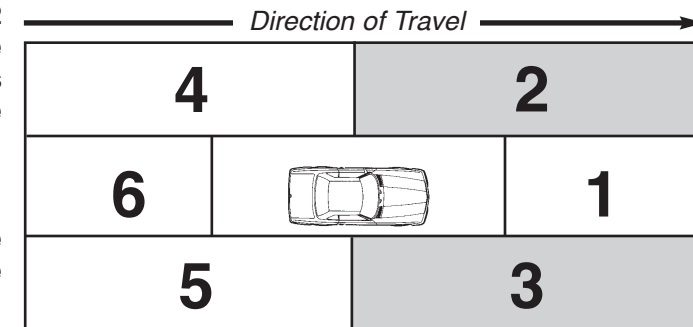
**KEEP A SPACE CUSHION TO THE SIDES**

A space cushion to the sides, as shown in **Areas 2 and 3** of the space management diagram, will give you room to react, if another vehicle suddenly moves into your lane. These areas are your potential escape paths.

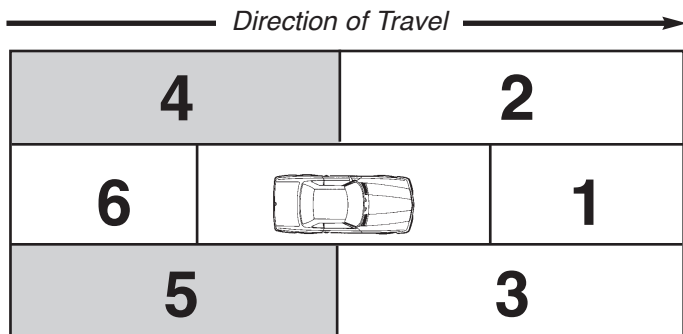
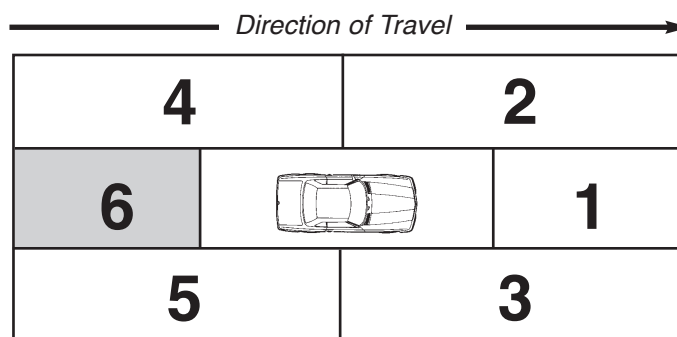
**Key points to remember are:**

- Avoid driving alongside other vehicles on multi-lane streets. They block your view and close your escape route, and you are probably in their blind spot.
- Keep as much space as possible to the side of your vehicle and oncoming vehicles.
- Make room for vehicles entering highways by signaling and moving to an inside lane, if it is safe.
- Keep space between your vehicle and parked vehicles. Someone may open a vehicle door or step out between parked vehicles, or a vehicle may pull out suddenly.
- If you do not have at least eight (8) feet of space on at least one side of your vehicle to use as an escape path, you will need to allow more space to the front by increasing your following distance.

You will usually drive in the center of your lane. But sometimes, you will find dangers on both sides of the road. As in the example pictured to the right, there may be parked vehicles to your right and oncoming vehicles to your left. In this case, the best thing to do is to slow down and “split the difference” by steering a middle course between the oncoming vehicles and the parked vehicles.

**KEEP A SPACE CUSHION BEHIND**

In **Area 6** in the space management diagram, a driver who is following you has more control over the clear space than you do, but you can help by keeping a steady speed and signaling before you have to slow down for a turn. If you see someone following you too closely (tailgating), move over to the right lane, if possible. If there is no right lane, you can encourage the tailgater to move around you by waiting until the road ahead is clear, then tapping your brakes gently to slowly reduce your speed. Also, look for an escape path to the side when you are preparing to slow down or stop.



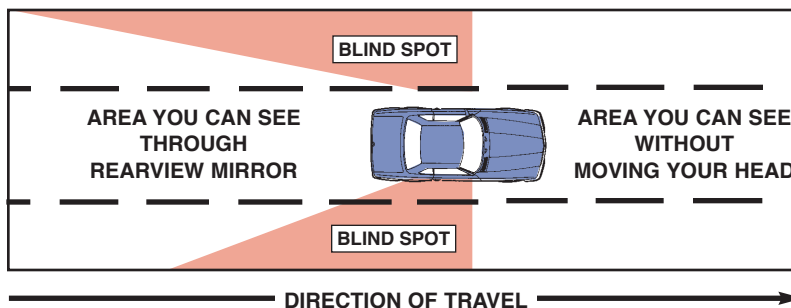
Finally, pay attention to what is happening in the left-rear and right-rear areas behind you (**Areas 4 and 5** of the space management diagram). You need to know how close other vehicles are to your vehicle and how fast they are traveling. These areas are blind spots, always check them by turning your head before changing lanes.



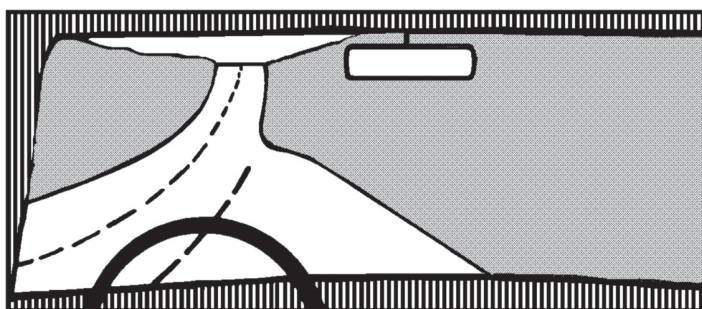
### KEEP YOUR VEHICLE WHERE IT CAN BE SEEN

Avoid driving your vehicle in another driver's blind spot. A blind spot is any place around a vehicle a driver cannot see without moving his/her head. Here are some good rules to help you avoid this mistake:

- Avoid driving on either side and slightly to the rear of another vehicle for a long time. Both positions are blind spots for the other driver. Either speed up or drop back to move out of the driver's blind spot.
- When passing another vehicle, get past the other driver's blind spot as quickly and as safely as you can. The longer you stay in the blind spot, the longer you both are in danger.



### LOOKING AHEAD



- The driver in the picture is in a lane that ends soon. If this driver does not change lanes, the driver may have to make a quick lane change or stop and wait for traffic to clear.
- To avoid last minute moves, you must look far enough ahead to see and react to things early. You should be able to identify problem situations 12 to 15 seconds ahead — about one block in the city, or a quarter of a mile at highway speeds.

Your ability to handle dangerous traffic situations depends largely on searching for and identifying problems far ahead. Looking far ahead does not mean you should simply stare at the center of the road. You need to continually scan the entire road, including the sides of the road.

#### As you scan the driving scene, watch for:

- Vehicles that and people who enter the road ahead of you and may be moving much slower.
- A vehicle that has slowed or stopped ahead, waiting for other traffic to clear before making a turn.
- Signs warning of danger ahead.
- Signs telling you about places ahead and/or giving you information about how to reach them.

### LOOKING TO THE SIDES

Looking to the sides is especially important at intersections, driveways, shopping center entrances and exits, and highway entrances and exits — any place where one stream of traffic meets another.

#### When you come to an intersection, follow the “left-right-left” rule:

- Look to the left first, because vehicles coming from the left are closer to you.
- Look to the right.
- Look again to the left before you pull out. You may see a vehicle you did not see the first time you looked.

When you enter the intersection, look left and right again. **Do not assume other traffic will always stop, even when there is a stop sign or signal.** If your view of the cross street is blocked by buildings, shrubs or parked vehicles, move forward slowly until you can see clearly.

**LOOKING BEHIND**

You must also check traffic behind you as often as possible. This is very important when you are planning to change lanes or back up.

**Changing lanes includes:**

- Changing from one lane to another on a roadway.
- Entering a highway from an entrance lane.
- Entering the roadway from the curb or shoulder.

Before you change lanes, give the proper turn signal. Look in your rearview and side mirrors and make sure no one is going to pass you. Also, look over your left and right shoulders to make sure no one is in your vehicle's blind spots. Check these spots quickly. Do not take your eyes off of the road ahead for more than a second. On roads with three (3) or more lanes, check all lanes before you make a lane change — someone in another lane may also be planning to move into the same spot where you want to go.

**Backing Up:**

When backing up, always check behind your vehicle — do it before you get in your vehicle. Children or small objects are hard to see from the driver's seat. Before backing up, turn your head so you can see through the rear window. Do not depend on your mirrors alone.

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**DRIVING AT NIGHT**

The highest crash rates occur during nighttime hours. Most serious crashes occur in twilight or darkness. Overall, traffic fatality rates are three (3) to four (4) times higher at night than in daylight. Compared to driving in the day, driving at night is more dangerous.

**There are several reasons for this:**

- Your vision is severely limited at night.
- Glare from other vehicles' headlights may temporarily blind you.
- More people who are tired or who are driving under the influence are likely to be on the road at night.

With less light, your ability to judge distances is reduced, your ability to see colors is reduced, and your ability to see things in your side vision is reduced. As a driver, you must always be ready to react if you suddenly see something unexpected on the road ahead of you — a pedestrian, a bicyclist, an animal, etc. — and you are much more likely to be surprised at night. Compared to signs and other roadside objects, pedestrians are hardest to see at night.

You must use your headlights properly at night and other times, as required by law. Headlights have a dual purpose: to help you see and to help you be seen. Clean your headlights at least once a week. Do it when you buy gas for your vehicle — dirty headlights may give only half of the light they should.

**State law requires drivers to use their headlights:**

- When they cannot see because of insufficient light on gray days or in heavy traffic when their vehicle may seem to blend in with the surroundings.
- When there are unfavorable atmospheric conditions, including rain, snow, sleet, hail, fog, smoke or smog. In bad weather, use only low beams. High beams actually reduce visibility under these conditions.
- When they cannot see pedestrians or vehicles on the highway for a distance of 1,000 feet ahead of the vehicle they are operating.
- Between sunset and sunrise.
- When driving through work zones.
- Anytime your vehicle's wipers are in continuous or intermittent use due to weather conditions.

<b>State law calls for fines beginning at \$25 for drivers who fail to use their headlights when required!</b>
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**Other important safety information about headlights and nighttime driving:**

- When driving at night, use low beams as soon as you see another vehicle approaching in the oncoming lane, as high beams can “blind” the other driver. Pennsylvania law requires you use low beams whenever you are within 500 feet of an oncoming vehicle and when you are following a vehicle within 300 feet.
- If a vehicle using high beams comes toward you, flash your high beams quickly a few times. If the driver does not dim his/her lights, look toward the right side of the road. This will keep you from being “blinded” by the other vehicle’s headlights and will allow you to see well enough to stay on your course until the vehicle passes.
- Do not try to punish the other driver by keeping your bright lights on. If you do, both of you may be “blinded.”
- If glare from a following vehicle’s headlights is uncomfortable because it is reflecting in your rearview mirror, you can switch the inside rearview mirror from its daytime to nighttime setting.
- Do not “overdrive your headlights” by driving so fast you could not stop in time to avoid a hazard that appears within the length of road ahead lighted by your headlights. Low beam headlights shine only about 250 feet ahead. Even on dry pavement, it takes more than 250 feet to stop if you are moving at 55 mph. To avoid overdriving your headlights on a dark road at night, you should not drive faster than 45 mph.

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**MANAGING SPEED**

What is a safe speed? How fast is too fast? There are no simple answers to these questions because there is not a single speed that is safe at all times. In addition to the posted speed limit, you must consider road conditions, visibility conditions and the flow of other traffic in choosing a safe speed to drive. Also, when you plan to change speeds, it will help you stay safe, by communicating your intentions to other drivers.

**POSTED SPEED LIMITS**

Posted speed limits indicate what the maximum safe driving speed is under ideal road, traffic and weather conditions.

- The maximum speed limit in Pennsylvania is 65.
- The maximum speed limit on interstate highways is posted after each interchange.
- On other highways the maximum speed limit would be posted at approximately ½ mile intervals.
- In school zones, the speed limit is 15 mph when the lights on the school zone sign are flashing or during the time period indicated on signs. School zone speed limits are lower than other speed limits.

**TEEN CRASH FACT**

“Driving too fast for conditions” is the No. 1 reason 16 and 17-year-old drivers are involved in crashes.

When the road is wet or slippery, when you cannot see well or when anything else makes conditions less than perfect, drive below the posted speed limit. Even if you are driving within the posted speed limit, you can still be ticketed for driving too fast for conditions.

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**ROAD CONDITIONS**

Your ability to stop is greatly affected by the condition of the road. You need to reduce your speed when road conditions are poor, so you can maintain control of your vehicle. You will be at greatest risk if you drive too fast on roads that are slippery, especially on curves. **Take turns and curves more slowly when the road is slippery.**

**Wet Pavements**

All roads are slippery when wet, but be extra careful on roads posted with warning signs that say **SLIPPERY WHEN WET**. Pavements can become very slippery in the first 10 to 15 minutes of a rain storm. The rain causes oil in the asphalt to come to the surface. This problem becomes even worse during hot weather, when the heat combined with the water causes more oil to rise to the road surface. In cold, wet weather, be extra careful driving on sections of road shaded by trees or buildings; these areas freeze more quickly and dry last.

- **Hydroplaning**

At excessive speeds, your vehicle can begin to hydroplane on a wet roadway. Hydroplaning happens when your tires lose their grip on the road and ride like skis on a film of water. The faster you drive on a wet roadway, the less effective your tires become at wiping the water from the road. You can hydroplane at speeds as low as 35 mph, when water is only 1/10 of an inch deep. Worn tires make this problem worse. Hydroplaning can be reduced by driving slower.

**If you find yourself hydroplaning, do the following:**

1. Keep both hands on the steering wheel.
2. Slowly take your foot off of the gas pedal to let your vehicle slow down. Do not slam on the brakes or try to turn suddenly because this will cause your vehicle to skid. As your vehicle slows down, the amount of tire tread touching the road will increase, and you'll begin to get better traction.
3. Turn slowly and only as much as necessary to keep your vehicle on the road.
4. If you have to use your brakes, brake gently. *(Refer to "If you have to brake suddenly" for important information about using conventional versus anti-lock brakes in emergency stops.)*

- **Snow and Ice**

When driving on snow or ice, you will need to adjust your driving to accommodate any situation. The traction of your tires on the road will be greatly reduced, seriously affecting your steering and braking ability. Also, it is extremely dangerous near 32° (Fahrenheit), when precipitation turns to rain or sleet — a thin layer of water on top of ice is more slippery than ice alone.

Watch for "black ice," a condition occurring on clear roadways when a thin layer of ice forms due to dropping temperatures. When the road looks wet but no spray is coming from the tires of other vehicles, "black ice" may be present.

**When roads get slick, you should:**

- Reduce your speed by 5 to 10 mph on wet roads and increase your following distance to five (5) or six (6) seconds.
- On ice or snow covered roads you need to slow down even more. On packed snow, decrease your speed by half; on ice, slow to a crawl. Leave about 10 times more space than normal between you and the vehicle ahead.
- Apply brakes gently, ease off if you start to skid and reapply when you regain control. *(Refer to "If you have to brake suddenly" for important information about using conventional versus anti-lock brakes in emergency stops.)*
- Do not use your cruise control when driving on slippery roads. Snow, ice, slush and rain can cause wheel-spin and loss of control. The only way to stop wheel spin and regain control is to reduce power. But, an activated cruise control system will continue to apply power, keeping your wheels spinning.
- Adjust your speed to avoid meeting other vehicles at slippery areas, such as shady spots and frost on bridges during cold weather. This will reduce the risk of skidding into the other vehicle.
- On icy or snow-packed roads, try to time your arrival at an intersection by letting your vehicle coast until the light turns green and vehicles ahead of you have begun to move. This way, you will not have to brake to stop and then accelerate to begin again. Also, when going uphill, stay far enough behind the vehicle ahead, so you will not need to slow down or stop. Before starting downhill, shift to a lower gear for better control.

**VISIBILITY CONDITIONS**

In addition to nighttime, fog and snow are conditions that reduce visibility and can dramatically decrease your ability to see ahead, and to respond quickly and safely to events happening around you.

**Fog is probably the most dangerous driving environment.** You cannot see what you are about to hit, and others cannot see you either.

Do not start a trip if the fog is so dense you cannot see. If you get caught in dense fog, it's best to pull completely off of the road, preferably into a parking lot, to wait until the fog clears. While parked, turn your hazard lights on to make your vehicle more visible, and keep your seat belt fastened.

**When you must drive in FOGGY CONDITIONS, always remember to do these two (2) things**

- |  |   |
|--|---|
| <b>1. Slow down enough so you can stop safely within the distance that you can see.</b> You will need to carefully check your speedometer because fog takes away most of the visual information that lets you know how fast you are going; this makes it easy for you to speed up without being aware of it. | <b>2. Turn on your low beam headlights (and fog lights, if your vehicle has them) so others can see you.</b> Do this whether it is daytime or nighttime. Do not use your high beams. They direct their light up and into the fog, which bounces the light back into your eyes, creating glare and making it even harder for you to see ahead. |
|--|---|

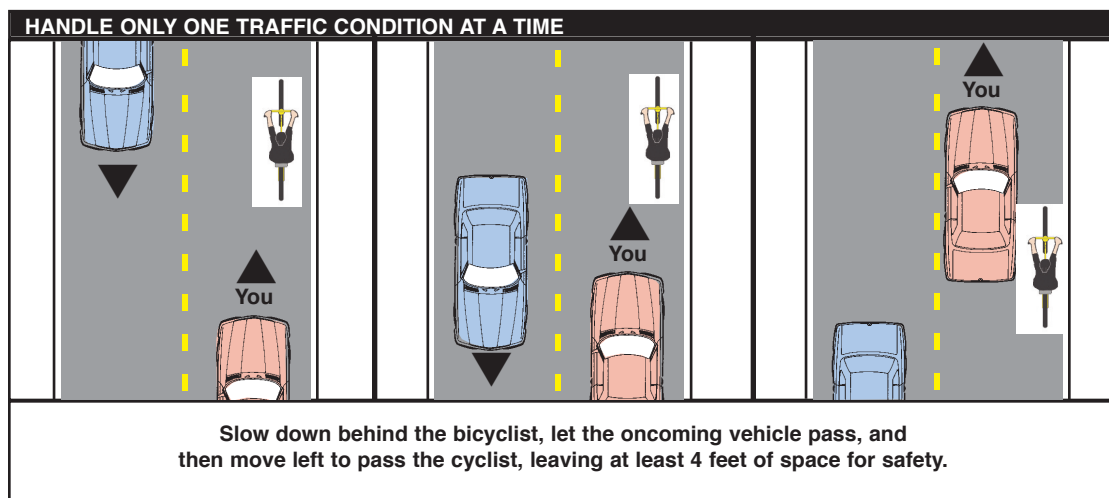
**Snow also can severely limit your visibility.**

**To increase your ability to see when driving in SNOWY CONDITIONS, do these six (6) things**

- |   |  |
|---|--|
| <b>1. Clear all the windows, hood, trunk and roof of your vehicle before starting to drive in the snow.</b> If you don't, snow will blow off of your vehicle and onto your windshield, blocking your view, or could blow off and onto the windshield of a driver who is following you.<br><br>If snow or ice from a moving vehicle strikes another vehicle or pedestrian causing death or serious bodily injury, the vehicle's driver could be fined. | <b>4. Use your windshield wipers to keep your windshield as clear as possible.</b> Make sure your windshield washer reservoir is full, and you are using fluid that will not freeze.   |
| <b>2. Clear your headlights, taillights and directional signals of snow, ice and dirt.</b> This helps other drivers see you and helps you see what is ahead. A dirty headlight reduces light output by more than 50 percent.  | <b>5. Keep the defroster on to clear steamed windows.</b> If you have a newer vehicle, your defroster may be part of your air conditioning system. Read your owner's manual to learn how your vehicle's defroster settings should be used. |
| <b>3. Let the engine warm up before you start driving.</b> It gives the defroster a chance to warm the windshield and melt any ice you could not scrape off.  | <b>6. Turn on your low beams, even during the daytime.</b> This increases your visibility to other drivers.  |

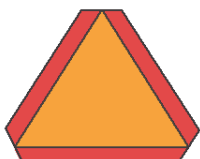
### TRAFFIC FLOW

- Crashes often happen when some drivers go faster or slower than other vehicles on the road. Always try to drive with the flow of traffic within the posted speed limit.
- You may need to adjust your speed to maintain your space cushion depending on what traffic is doing around you. For example, when traveling in a pack of vehicles on a highway, you will often find yourself traveling in someone's blind spot with no space cushion for emergencies. When this happens, reducing your speed by just two (2) or three (3) mph will encourage traffic around you to clear out, so you are no longer closed in.
- Another time when you may have to adjust to traffic flow is if there is more than one (1) potential hazard ahead you will confront at the same time. For example, with a bicyclist to your right, the safe thing to do is to move **left** to allow a wide margin when you pass. But, if there is also an oncoming vehicle, this creates a problem because normally you would want to move to the **right** in your lane in this circumstance. You should handle this situation by facing only one (1) traffic condition at a time. Slow down to let the oncoming vehicle pass and then move left to pass the cyclist, leaving a sufficient amount of space for safety.
- Moving with and through traffic requires skills obtained through knowledge and practice. You **must** drive in the lane nearest the right-hand edge of the road, except when overtaking another vehicle or for a distance of up to two (2) miles in preparation for a left turn or as directed by official control devices, police officers or appropriately attired persons authorized to divert, control or regulate traffic.
- Also, when you are approaching an emergency scene, police stop or a tow truck picking up a disabled vehicle, you must move into a nonadjacent lane. If you cannot move over, you must slow to a careful speed.



### REACTIONS TO SLOW MOVING TRAFFIC

Watch out for vehicles that have trouble keeping up with the flow of other traffic and when entering the roadway; they take longer to pick up speed. These include some large trucks, as well as farm equipment and horse-drawn vehicles. Trucks, especially on long or steep upgrades, typically use their flashers to alert other drivers they are moving slowly.



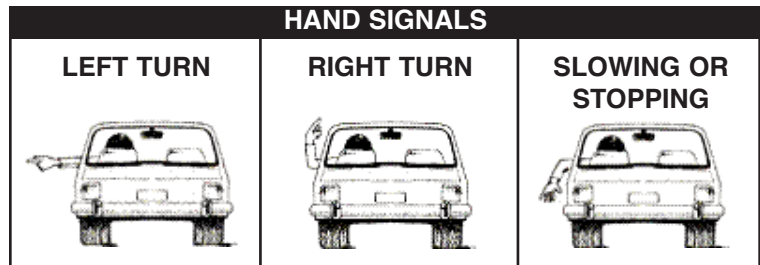
In rural areas, an orange triangle is displayed on the back of farm tractors and horse-drawn vehicles designed to operate at 25 mph or less; this is a slower speed than traffic normally travels. In certain areas of Pennsylvania, it is not at all unusual to find yourself sharing the road with farm tractors and horse-drawn vehicles. Stay a safe distance back, and do not honk to pass.

## COMMUNICATING YOUR INTENTIONS TO OTHER DRIVERS

Crashes often happen because one (1) driver does something that another driver does not expect. To help avoid crashes, communicate with drivers on the road.

### Let others know where you are and what you plan to do by:

- **Signaling when slowing down or stopping.** Your brake lights tell other drivers you are slowing down or stopping. If you are going to brake where other drivers may not expect it, quickly tap your brake pedal three (3) or four (4) times. If you must drive below 40 mph on a limited access highway, use your hazard (four-way) flashers to warn the drivers behind you.
- **Signaling when changing direction.** Signaling tells others you want to make a turn, but it does not give you the right to make a turn. Under Pennsylvania law, you must always use your turn signals at least **100 feet** before turning, if you are driving less than 35 mph. If you are driving 35 mph or more, you must signal at least **300 feet** before turning. If your vehicle's turn signals do not work, use these hand signals.
- **Using emergency signals.** If your vehicle breaks down on the highway, you will need to pull off of the road. Signal, then carefully exit the roadway, and put on your hazard (four-way) flashers to warn other drivers. Get as far off of the road as possible, and park in a place where other drivers can see you easily. Lift your hood to let other drivers know your vehicle is disabled.
- **Using your horn.** Your horn instantly attracts the attention of other drivers. Use it when you think another driver or a pedestrian does not see you – for example, if a child is beginning to run into the street or if you think another vehicle is about to hit you. Also, if you lose control of your vehicle, alert other drivers by sounding your horn.



## TURNING, MERGING AND PASSING

You must concentrate on many factors when making a turn. Speed is probably the most important factor. When turning, reduce to a speed that allows you to maintain control of your vehicle, allows you to stay in your lane during the turn and allows you to react to unexpected situations. Watch out for pedestrians and for other traffic in the street you are turning onto. Many streets have signs, signals or markings to guide you. Some signs show what lanes you can or must use for turns.

### TO COMPLETE A TURN SAFELY

1. Signal three (3) to four (4) seconds before your turn.
2. Position your vehicle in the proper lane.
3. Control your speed.
4. Complete your turn in the proper lane.

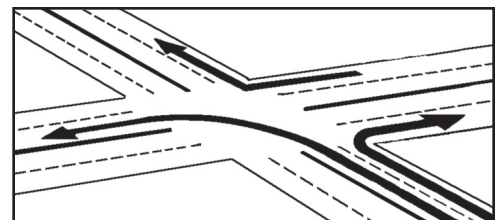
### TEEN CRASH FACT

Improper or careless turning is a common cause of crashes among new, young drivers. In 2009, improper or careless turning was the cause of 659 crashes involving drivers age 17 in Pennsylvania.

### LEFT AND RIGHT TURNS

On two-lane, two-way streets or highways, make left turns from as close to the centerline as possible. Make right turns from as close to the right edge of the roadway as possible.

To turn left on multi-lane streets and highways, start from the left lane. If you are turning right, start from the right lane. If you are turning onto a highway, which has more than one (1) lane in the direction you wish to travel, turn into the closest lane going in that direction. Turn into the left lane when making a left turn, and turn into the right lane when making a right turn. If you want to change to another lane, wait until after you have safely completed your turn.





### TURNING FROM OR INTO A CENTER TURN LANE

If you see a lane in the middle of a two-way street marked on both sides by two (2) lines — one (1) solid outer line and one (1) broken inner line — it means this lane may only be used for left turns (Refer to the diagram in Chapter 2). Drivers traveling in either direction must use this lane to begin their left turns, and drivers entering the road may also use this lane to end their left turn from a cross street before entering the traffic stream.

#### There are many possible traffic conflicts in this situation:

- When you enter the center lane to turn left into a driveway or cross street, you must watch for both oncoming vehicles in the center turn lane and vehicles turning from driveways and cross streets (on your left) into the center turn lane.
- When you are turning left from a driveway or cross street into a center lane, you must watch for through traffic coming from your left, as well as for drivers who are already in the center lane preparing to make a turn from either direction.

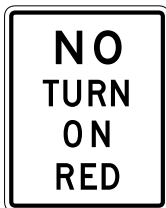
#### FOLLOW THE GUIDELINES BELOW TO SAFELY USE CENTER TURN LANES

- |  |   |
|--|---|
| <p><b>1. Put on your left turn signal</b> at least three (3) to four (4) seconds before entering the left-turn lane.</p> <p><b>2. Do not get into the center turn lane too soon.</b> The longer you drive in the center lane, the more likely you are to meet someone head-on coming from the other direction.</p> | <p><b>3. When you enter the center turn lane, enter it completely.</b> Do not leave the back end of your vehicle sticking into the normal travel lane, blocking traffic.</p> <p><b>4. Turn only when it is safe.</b> Look for vehicles coming toward you in the same lane, and make sure there is a big enough gap before you turn across oncoming traffic. If entering the center lane from a cross street, watch for through traffic and for center lane traffic preparing to turn.</p> |
|--|---|



#### U-TURNS

These are permitted only if they can be made without endangering other traffic. In choosing a place to make a U-turn, make sure drivers coming from all directions are at least 500 feet away from you, and they can see you clearly. U-turns are not allowed on curves or when you are approaching or nearing the crest of a hill. U-turns are also illegal at locations marked with this sign.



#### TURNING RIGHT AT A RED LIGHT

Unless you see this sign, you may turn right at a red light if traffic is clear. Before making the right turn, you must always stop first, and yield to pedestrians and cross traffic. If you are turning from a one-way street onto another one-way street, you may also turn left on a red signal after stopping, if traffic is clear and there is not a **NO TURN ON RED** sign. This sign is typically placed beside the road on the near side of the intersection and close to the traffic signal on the far side of the intersection.

**CROSSING TRAFFIC**

Whenever you cross traffic, you need enough space to do it safely. The amount of space you need to cross traffic depends on the road, weather conditions and oncoming traffic.

**Remember:**

- Stopping halfway across a street is safe only when there is a turning lane provided in the center median large enough to hold your entire vehicle.
- If you are crossing or turning, make sure there are no vehicles or pedestrians blocking your path. You do not want to be caught in the middle of an intersection with traffic coming toward you.
- Even if you have a green light, do not enter an intersection if there are vehicles blocking your way. Wait until you are sure you can clear the intersection before starting to cross it.
- Do not pull out in front of an approaching vehicle with its turn signal on to enter or to cross a street. The driver may plan to turn into a street or driveway just beyond you, may have changed his/her mind or may have forgotten to turn off the signal. This is especially true of motorcycles; their signals may not turn themselves off.  
**Wait until the other driver actually starts to turn before you go.**
- Use extra caution when crossing traffic in areas with hills or curves, where you cannot see or be seen as well.

**MERGING WITH TRAFFIC**

Merging with traffic also demands good driver judgment. Whether you are changing lanes on a highway or entering a highway from a ramp, you need enough space to move safely into the traffic stream.

Entrance ramps for highways often have acceleration lanes. These lanes run beside main traffic lanes and should be long enough to allow you to accelerate to the speed of traffic before you enter the highway itself. These lanes also allow drivers on the highway to see you before you enter the road. **It is illegal to pass a vehicle ahead of you in an acceleration lane.**

**Follow These Three Steps to Merge with Traffic from an Acceleration Lane**

1. Put your turn signal on, and look for an opening in traffic.
2. Accelerate up to the speed of traffic.
3. Merge into the opening in traffic.

**PASSING**

Passing is an important part of driving; if not done properly, passing can be a very dangerous or even fatal maneuver. Use the following guidelines.

**In general, if there is enough clear road ahead of you to attempt a pass, you still must**

1. Look for signs and pavement markings that tell you when you can or cannot pass safely under normal driving conditions. *(Examples of these can be found in Chapter 2.)*
2. Look ahead carefully before you start to pass and check for any dangers in the passing area, such as driveways from which a vehicle could enter the roadway during your passing maneuver.
3. Look in your side and rearview mirrors and quickly check your blind spots to make sure there are no vehicles about to pass you when you start to pass.
4. Before passing, make sure the passing lane is clear and give the proper turn signal to show you are going to change lanes. Signal early enough so others will know your plans in advance.
5. After passing, signal your plan to return to your lane.
6. Before you move back into the lane, make sure you can see both headlights on the front of the vehicle you passed in your rearview mirror.

When passing, be extra careful in areas where vehicles or pedestrians might enter or cross the road. These places include crossroads and shopping center entrances and exits. Also, a driver turning onto the roadway and into the left lane will not expect to find you in that lane and may not even look your way.

- **ON A TWO-LANE ROAD**

Passing on a two-lane road requires good judgment to avoid a head-on collision because you must use a lane belonging to oncoming traffic. At 45 mph, this translates into 1/4 mile of clear roadway you need to safely pass a slower vehicle.

You need to be going about 10 mph faster than the vehicle(s) you are passing. If there are other vehicles ahead of the vehicle you want to pass, you may pass them as well, but make sure you have a large enough space in front of that vehicle to move into before you begin your passing maneuver.

It is most dangerous to pass at night because you cannot see as far ahead, and it is more difficult to accurately judge distances. If you can only see the headlights of an oncoming vehicle, you are likely to think it is farther away than it really is.

- **PASSING ON THE RIGHT**

Under certain conditions, you may pass another vehicle on the right:

- When the driver you are passing is making or signaling a left turn, the driver of the passing vehicle must stay on the berm or shoulder.
- When driving on a roadway with two (2) or more marked traffic lanes in each direction.

- **YOU MAY NOT PASS IF:**

- You are within 100 feet of or are crossing any intersection or railroad grade crossing, unless an official traffic control device says you may.
- You are within 100 feet of any bridge, elevated structure or tunnel.
- You are approaching or are on a curve or a hill crest (top) restricting your view of oncoming traffic.
- You are on the shoulder of a multi-lane highway.

**TEEN CRASH FACT**

Driving on the wrong side of the road is a frequent cause of crashes among 16- and 17-year-old drivers. From 2007 to 2009, there were 439 crashes and 59 people killed.

## NEGOTIATING INTERSECTIONS

The law does not give anyone the right-of-way at intersections; it only says who must yield. Even when one driver is legally required to yield right-of-way, if he or she fails to do so, other drivers are still required to stop or yield as necessary to avoid a crash. **Never** insist on having the right-of-way; it may result in a crash.

Laws governing who must yield in different driving situations are listed below. You must follow these laws, if there are no signs, signals or police present to tell you what to do at the intersection:

1. Drivers must yield to pedestrians when they are: **a)** crossing at any intersection without a traffic light (with or without a crosswalk); **b)** crossing the roadway in marked crosswalks, whether or not at an intersection; **c)** walking on a sidewalk crossing a driveway or alley; and **d)** when the driver is turning a corner and pedestrians are crossing with the light. Drivers must always yield to any blind pedestrian carrying a white cane or being led by a guide dog.
2. Drivers turning left must yield to oncoming vehicles going straight ahead.
3. Drivers entering a circular intersection (or roundabout) must yield the right-of-way to drivers already in the circle.
4. When two vehicles approach or enter an intersection from different roadways at or about the same time, drivers coming from the left must yield to vehicles coming from the right.
5. A vehicle entering a public highway from an alley, private road or driveway must wait until the main road is clear.
6. At a four-way stop, all vehicles must stop. The first vehicle to reach the intersection should move forward first. If two (2) vehicles reach the intersection at the same time, the driver on the left yields to the driver on the right. If facing one another both can proceed with caution, watching for possible turns.

### TEEN CRASH FACT

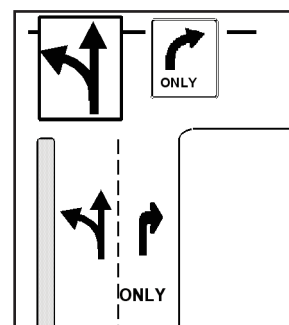
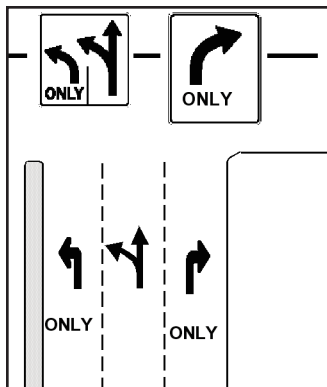
Intersections are places where teenage drivers have a high percentage of their crashes. In over one-third (1/3) of the crashes involving 16-year-old drivers in Pennsylvania, the teen driver was pulling out from a stop sign or turning left across traffic.

## APPROACHING INTERSECTIONS

As you approach an intersection, look for signs, signals and pavement markings telling you what movements are allowed from which lanes. Get into the correct position to turn or to travel through the intersection well in advance.

### Signs and pavement markings for lane assignment

Many streets have signs or pavement markings indicating a particular lane is to be used for a particular traffic movement. If you end up in a lane marked for turns only when you want to go straight through the intersection, you must make the turn. If you want to turn, but end up in a lane marked for through traffic, you must continue straight through the intersection. At the intersection shown on the right, the signs and markings tell you if you are in the right lane, you may only turn right, and if you are in the left lane, you may either turn left or go straight through the intersection.



The signs and markings in the diagram shown to the left, include dual left turn lanes. You may turn left from either lane, but the driver next to you may turn left at the same time. Do not change lanes during the turn, as this will cause you to crash into the driver turning next to you. Also, watch out for the driver next to you straying into your turning path. The signs and markings here indicate you must turn right if you are in the right lane. If you are in the left lane, you must turn left. If you are in the center lane, you may either turn left or go straight through the intersection.

### TRAFFIC SIGNALS AND STOP SIGNS

Your safety at intersections depends a lot on your proper response to the green, yellow and red lights you see on traffic signals and to two-way and four-way stop signs.

### ONE WAY, WRONG WAY AND DO NOT ENTER SIGNS

Many streets in cities are one-way streets. You will know traffic on a particular street moves in only one (1) direction if you see **ONE WAY** signs posted at the intersection. Another clue a road is one way is when you see vehicles parked on both sides of the road headed in the same direction.

You will see **ONE WAY** signs, **WRONG WAY** signs and **DO NOT ENTER** signs all together at roads intersecting with divided highways. You can think of a divided highway as two (2), one-way streets. Most have a physical barrier separating traffic moving in each direction. This could be a narrow concrete barrier, or it could be a wide cement or grassy area. You will usually see a **DIVIDED HIGHWAY** sign on your road as you approach the intersection.

Making a right turn onto a divided highway is no different from making a right turn at any other intersection. Make sure you have a safe gap to turn right in front of traffic approaching from your left.

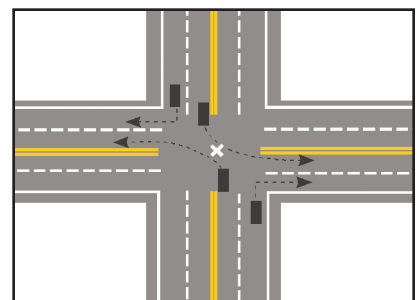
There is a special danger in making a left turn onto a divided highway, however. If you do not realize you are turning onto a divided highway, you may turn left before you get to the physical divider and end up in a head-on collision with traffic approaching from your left. You must take notice of the **DO NOT ENTER** and **WRONG WAY** signs.

To correctly turn left onto a divided highway, you need to cross the "first" roadway when there is a safe gap in traffic approaching from your left, and then turn left on the other side of the barrier, when there is a safe gap in traffic approaching from the right on the "second" roadway.

### MOVING INTO AND THROUGH INTERSECTIONS SAFELY

- **To travel across an intersection with a two-way stop sign** - You need about a 6-second gap in both directions to cross a 30 mph street or about a block of clear space to the right and left. At the stop sign, first look to the left, then look to your right for a safe gap, and then quickly check to your left again before proceeding.
- **To turn right** - Look left, straight ahead, right and then left again to make sure there is no traffic coming. Allow a gap of about eight (8) seconds between you and any vehicle approaching from the left.
- **To turn left** - Make sure you have a clear gap to turn in front of oncoming traffic and traffic on the cross street is stopped. If you are turning from a minor onto a major street, allow a 9-second gap between you and any vehicle approaching from the right.

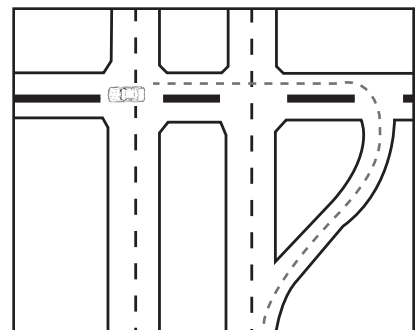
It is important when turning left to avoid conflicts with vehicles turning left from the opposite direction. In the diagram at the right, imagine an "X" at the center of the intersection. By turning before you reach the "X," you avoid a "tangle turn" with the other left-turning driver. By always turning into the lane closest to the centerline, you also avoid interfering with traffic coming from the opposite direction making a right turn onto the same street.



#### Most important:

**Never start a left turn until you can see all the lanes you need to cross are clear, and you can safely make the turn.**

- **Jughandles** - Some roads in busy, commercial areas have a physical barrier dividing traffic moving in opposite directions and signs at the signalized intersections saying **NO LEFT TURN** or **NO U-TURN** and **ALL TURNS FROM RIGHT LANE**. In this situation, the road may be designed with jughandles for making left turns. Instead of making a left turn directly across oncoming traffic, you will use a right turn lane curving back to intersect the major road at a traffic light then turn left.





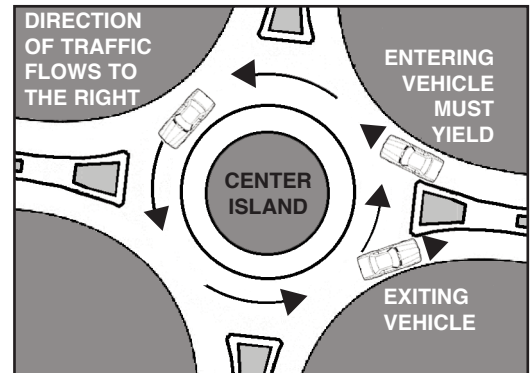
- **Circular Intersections** - Roundabouts and traffic circles are circular intersections where traffic moves counter-clockwise, so that all turns into and out of the circle are right turns. This eliminates the risk of head-on, left-turn and right-angle crashes. Roundabouts have special rules and a special design making them different from traffic circles, however.

We will focus on how to use roundabouts since these kinds of circular intersections are replacing the large, old-fashioned and high-speed traffic circles or are being installed in many communities instead of intersections with traffic signals.

Roundabouts have **YIELD** signs at each entry point and yield lines painted on the pavement at each entry point. A **ONE WAY** sign (pointing right) is usually located in the center island. Most roundabouts also have a destination sign on the approach so you know where each exiting road will take you.

#### DID YOU KNOW?

The most frequent cause of crashes at roundabouts is drivers who fail to yield before they enter.



### HOW TO USE A CIRCULAR INTERSECTION

#### APPROACHING AND ENTERING:

1. When approaching a roundabout **SLOW DOWN** and be prepared to yield to pedestrians in the crosswalk.
2. Pull up to the Yield Line, look to the left and check for approaching traffic within the roundabout, **CIRCULATING TRAFFIC HAS THE RIGHT- OF-WAY**.
3. Enter the roundabout when there is an adequate gap in traffic.

#### EXITING THE ROUNDABOUT:

1. Once you have entered the roundabout, proceed counterclockwise to your exit point. **YOU** now have the right-of-way.
2. As you approach your exit, use your **RIGHT TURN SIGNAL**.
3. Watch for pedestrians in the crosswalk and be prepared to yield.
4. Exit the roundabout.

#### BE PREPARED FOR:

**Emergency vehicles** - Do not enter the roundabout when emergency vehicles are approaching, pull to the side. If in the roundabout, immediately exit the roundabout and pull to the side. **NEVER STOP IN THE ROUNDABOUT.**

**Bicyclists** - Bicyclists have the option to function as a vehicle or pedestrian when using a roundabout. When acting as a vehicle, they will follow the same rules. **NEVER OVERTAKE A BICYCLIST ACTING AS A VEHICLE IN A ROUNDABOUT.**

**Pedestrians** - Motorists must yield to pedestrians when entering and exiting a roundabout. Pedestrians will utilize crosswalks and splitter islands to cross each leg of the roundabout.

## NEGOTIATING CURVES

The most important thing to understand about curves is you cannot beat the laws of physics. Vehicles are heavy, and they have lots of inertia. This means if you are driving too fast on a curve, your vehicle is going to keep moving straight ahead instead of around the curve, no matter how much you try to steer it or slow it down to keep it in your lane. You will either run off of the road (on a left-bending curve) or go into the other lane of traffic (on a right-bending curve). You do not have to be traveling very fast for this to happen. If the curve is sharp and the road is wet or icy the most reduction in speed is needed.

### TEEN CRASH FACT

The most frequent crash type for 16-year-old drivers in Pennsylvania is a **single-vehicle, run-off-the-road crash**. From 2007 to 2009, there were 2,969 crashes and 28 people killed.



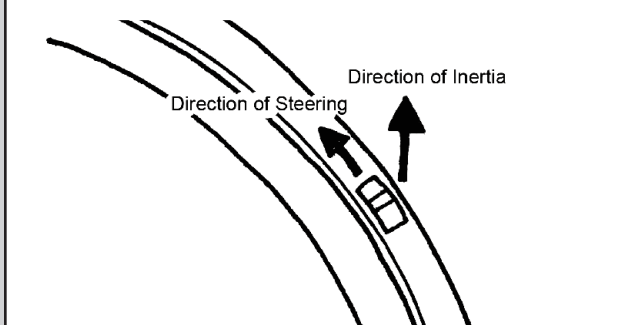
### TO MAINTAIN CONTROL ON CURVES, YOU MUST SLOW DOWN. DO IT BEFORE YOU ENTER THE CURVE.

As you approach a curve, you will usually see a yellow diamond warning sign showing how the road bends. If the road bends at a 90-degree angle, you may see a rectangular yellow sign with a large arrow pointing left or right. Some sharp curves also have chevron warning signs placed throughout the turn; these are very helpful at night or in poor visibility conditions. Review the various types of curve warning signs shown in Chapter 2.

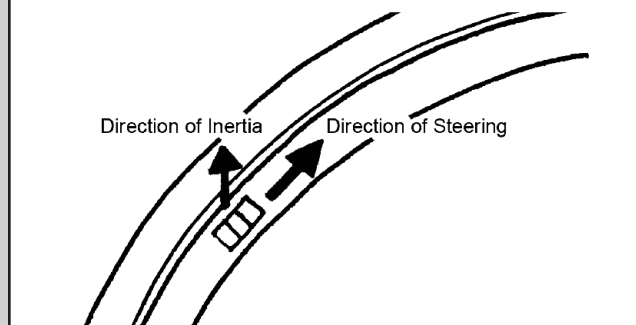
### HERE IS HOW YOU CAN SAFELY DRIVE THROUGH CURVES:

1. Keep slightly to the right of the lane center on right curves and in the middle of your lane on left curves.
2. The sharper the curve, the more you need to reduce your speed.
3. Look for traffic coming from the opposite direction. A speeder could easily stray into your lane.
4. For guidance about how to steer your vehicle, scan ahead and look at the inside edge of the curve. If there are multiple curves, look at the inside edge of each curve as far ahead as you can see.

#### THE PHYSICS OF SPEEDING ON A LEFT-BENDING CURVE



#### THE PHYSICS OF SPEEDING ON A RIGHT-BENDING CURVE



## NEGOTIATING HIGHWAYS AND INTERCHANGES

Crashes on highways are the most severe because traffic is moving at a high speed. You are at greatest risk at highway interchanges, when you are changing lanes, and when traffic unexpectedly slows or stops, due to congestion.

### ENTERING HIGHWAYS

Your first critical decision when entering a highway is to make sure you do not turn onto the exit ramp by mistake and drive head-on into other traffic. The exit ramp will be marked with **ONE WAY** signs as well as **DO NOT ENTER** and **WRONG WAY** signs. Sometimes, but not always, the entrance ramp will have a green sign that says **HIGHWAY ENTRANCE**. If you see a white line on your right and a yellow line on the left, you are headed in the right direction.

Some highway entrances and exits are very close together with only a short “weaving lane” in between. Traffic entering and exiting the highway must share the weaving lane. A potential threat is posed by two (2) drivers who want to use the same space at the same time. If you are the driver entering the highway, you must yield to the exiting driver. When looking for a gap while driving on a highway entrance ramp, look over your shoulder and in your side mirror.

### EXITING HIGHWAYS

Get in the proper lane for exiting well in advance. Do not slow down until after you have moved into the exit lane. If you miss your exit, take the next one. Do not stop or back up on the highway. Do not swerve across several lanes to try to make the exit at the last second. Do not cross over the median to try to turn around. These maneuvers are illegal and can be extremely hazardous to your health and safety. Exit ramps have a warning sign to let you know the maximum safe speed.

### TRAVELING ON HIGHWAYS

Half of the fatal crashes on highways involve vehicles that have run off of the road as the result of speeding and/or driver fatigue - **65 mph is almost 100 feet per second - it takes less than one (1) second to run off of the road.**

When you change lanes to pass a slower moving vehicle on a highway, only change lanes one (1) lane at a time, use your turn signal every time you change lanes, and turn it on in plenty of time for other drivers to see it.

If you see a vehicle about to enter the highway from an on-ramp, a common courtesy is to change lanes to allow the driver to enter the highway more easily. Even though the entering driver is required to yield the right-of-way to you, such a courtesy on your part keeps traffic moving smoothly. But, first check to make sure it is clear around your vehicle.

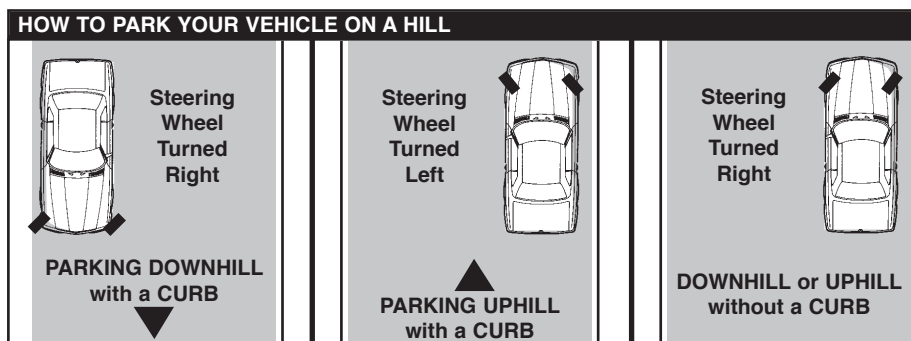
Another risk when driving on highways is inattention due to “highway hypnosis.” This happens when you stare straight ahead at the roadway for long periods of time, and stop actively scanning ahead, behind and around your vehicle. If you “zone out” in this way, you are very likely to crash into traffic slowing or stopping ahead of you. Of fatal crashes on highways, 20 percent involve rear-end collisions. Driver inattention and following too closely account for most of these crashes.

## PARKING

If the street you are on has a curb, park as close to it as you can, but no more than 12 inches away. If it has no curb, pull as far off of the roadway as possible.

When you must park on the roadway, use your four-way flashers and give enough room to passing vehicles. Make sure your vehicle can be seen at least 500 feet in both directions.

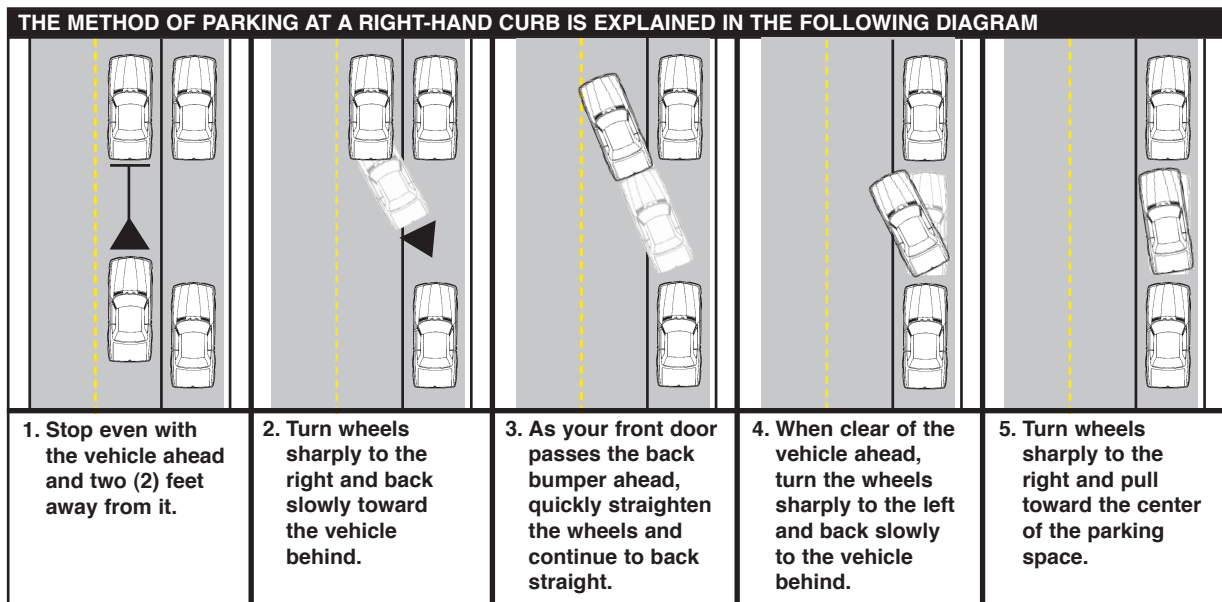
Always park in the direction traffic moves. Make sure your vehicle cannot move. Set your parking brake and shift to “Park,” if your vehicle has an automatic shift or to “Reverse” or “First,” if your vehicle has a manual shift. If you are parked on a hill, turn your wheels as shown in the diagram. When parking your vehicle on a downhill with or without a curb, you should turn your steering wheel so your wheels are completely to the right.



**Except in emergencies or unless a police officer tells you to do so, never stop, stand or park your vehicle at the following places:**

- On the roadway side of a vehicle already stopped or parked along the edge or curb of the street (double parking).
- On the sidewalk.
- Within an intersection.
- On a crosswalk.
- Along or opposite any street digging or work area.
- On any bridge or other elevated structure, or in a highway tunnel.
- On any railroad tracks.
- Between roadways of a divided highway, including crossovers.
- Within 50 feet of the nearest rail at a railroad crossing.
- At any place where official signs prohibit parking.
- At any place where official signs prohibit stopping.
- In front of a public or private driveway.
- Within 15 feet of a fire hydrant.
- Within 20 feet of a crosswalk at an intersection.
- Within 30 feet of any flashing signal, stop sign, yield sign or traffic control device located at the side of a roadway.
- Within 20 feet of a driveway entrance to a fire station.
- Where your vehicle would prevent a streetcar from moving freely.
- On a limited access highway, unless official traffic control devices indicate you are allowed.

## PARALLEL PARKING TIPS



If the street you are on has a curb, you must park as close to it as possible, but no more than 12 inches away. If it has no curb, you must pull as far off of the roadway as possible.

Before leaving your vehicle, turn off the engine, remove the key and lock all doors. Check for traffic behind you before you get out.

## SPECIAL CIRCUMSTANCES AND EMERGENCIES

The following pages give you information about how to drive safely and reduce your risk of crashing in these special circumstances - in highway work zones, at railroad crossings, and when you encounter pedestrians, cyclists, trucks, buses or emergency vehicles - and when you must deal with road rage and various driving emergencies.

### WORK ZONES

Work zones are areas where construction, maintenance or utility work activities are taking place. These areas are identified by the use of orange signs (often with flashing lights and flags), flashing panels, orange cones and orange and white barrels. You may encounter a flagger directing traffic with a sign paddle and reflective clothing. Signs warning of an approaching work zone may be placed a minimum of 1,500 feet from the start of the work zone. When you see the first sign, it is imperative that you pay strict attention to the road and the vehicles, equipment and people you could encounter. Generally, work zones have an advance warning vehicle parked as a precaution; it sometimes has a flashing arrow sign attached to the back. Some interstate work zones may be accompanied by a Pennsylvania State Police vehicle.

An **active work zone** is the portion of a work zone where workers are located on the roadway, shoulder or shoulder edge. **Watch out for construction workers** who are close to moving traffic. Work zones can be tight spaces, especially on narrow, rural roads. Proceed cautiously.

Moving operations, such as line painting, crack sealing and mowing, to name a few, use various pieces of equipment and vehicles. Shadow vehicles at the back of the operation warn motorists that there is work ahead of the truck and also serve as protection to the crew. Moving operations will often pull off the road to allow traffic to pass safely.

#### DID YOU KNOW?

Every year in the U.S., about 40,000 people, including highway workers and motorists, are injured or killed as a result of vehicle crashes in work zones. Carelessness and speeding are the main causes of traffic fatalities in work zones.

Drivers must yield the right-of-way to workers and construction vehicles in work zones. By law, you must turn on your vehicle's headlights -not just the daytime running lights- when driving through these areas. You may be fined for failure to use your headlights in an active work zone. Also, fines are doubled for certain violations in active work zones, including speeding. In addition, certain violations will result in a driver's license suspension.

**Be prepared for slowed or stopped traffic as you approach a work zone, and follow these safety rules:**

- Do not use your cruise control in work zones.
- Double your following distance - the most common crash type in work zones is the rear-end collision.
- Prepare to change lanes as soon as you see a message telling you your lane is closed ahead.
- DO NOT CROSS a solid white line in the center of the road in a work zone.
- Keep moving at a safe speed as you drive through the work zone - do not slow or stop to watch roadwork.
- Do not stop within a work zone to ask directions from the workers.
- Obey flaggers - their authority overrides conventional traffic signs and signals. They can report motorists who speed or drive unsafely in work zones to the police using the Police Arrest Form.

**Remember: Flaggers can report motorists who speed or drive unsafely in work zones to the police!**



## RAILROAD CROSSINGS

Most railroad crossings are protected only by an advanced warning sign and a crossbuck. Most crossings do not have gates to stop traffic. You must be especially alert when approaching all railroad crossings.

Familiar crossings without much train traffic can be the most dangerous. If you often use such a crossing and do not usually see a train, you may start to believe trains never go by; believing this can be dangerous.

### Remember these points at railroad crossings:

- Always look left, right and then left again as you approach a railroad crossing. Do this even if the crossing is active and the signals are not flashing - they may not be working.
- If you are stopped at a railroad crossing with more than one track, do not start as soon as the train passes. Wait until you have a clear view down both tracks before you start across. Even with one (1) track, do not start across immediately after a train passes - check again for another train that may be approaching.
- Never try to pass someone as you approach or enter a railroad crossing.
- Do not blindly follow the lead of another vehicle crossing the tracks. If you are following another vehicle, check to make sure you have enough room to get all the way across before you drive onto the tracks. If traffic slows ahead of you, wait for it to clear before starting to cross. **Do not ever get trapped on the tracks.**
- If you make the mistake of getting trapped on a railroad crossing and a train is approaching, quickly leave the vehicle and move as far away from the track as you can.

### DID YOU KNOW?

Every hour and a half, a train collides with a vehicle or a pedestrian in the U.S. You are 40 times more likely to die in a crash involving a train than you are in a crash with another vehicle.

## SHARING THE ROAD WITH PEDESTRIANS, BICYCLISTS, AND MOTORCYCLISTS AND MOPED DRIVERS

Pedestrians and cyclists deserve your respect as a vehicle operator. These groups are all more vulnerable to injury in a crash, yet have rights to use the public roads just as you do. Remember the following safety tips.

### PEDESTRIANS

- Yield to pedestrians crossing at intersections or in crosswalks.
- Right turn on red means stop, look in all directions, and then turn when it is safe. Look for pedestrians, and allow ample time for them to clear the crosswalk.
- Always reduce speed, and use extra caution when children are in the vicinity. They may fail to understand the danger and may run out in front of you without looking.
- You must observe school zone speed limits and stop for school buses when red signals are flashing. School zones and school bus stops are locations with high concentrations of children.
- Be patient with elderly pedestrians and pedestrians with disabilities. They need extra time to cross a street.
- Before backing up, always check for pedestrians in your path.
- Yield the right-of-way (slow down and prepare to stop) to blind pedestrians, whether they have a white cane or a guide dog, or are being led by others.
- When approaching a stopped vehicle from behind, slow down and do not pass until you are sure there are no pedestrians crossing in front of it.

**BICYCLISTS**

Safety Tips (see laws on page 91)

- When approaching or passing a bicycle, slow down to a safe speed.
- After you have passed a bicyclist, do not slow down or stop quickly. A quick stop could lead to the bicyclist crashing into your vehicle.
- Do not sound your horn close to bicyclists, unless you must do so to avoid a crash.

**MOTORCYCLISTS AND MOPED DRIVERS**

- According to the law, you must allow the motorcyclist/moped driver to use one (1) complete lane.
- Most motorcycle/vehicle or moped/vehicle crashes happen at intersections. Usually, the vehicle turns left in front of a moving motorcycle/moped when the driver of the vehicle should have yielded the right of way.
- Do not assume a motorcycle/moped is turning when you see its turn signal flashing. A motorcycle/moped's turn signals may not turn off automatically, like a vehicle's. Do not pull out in front of a motorcycle/moped until you see it actually turning.
- Obstacles that may prove minor to a motorist can be deadly to a motorcyclist/moped driver. Be prepared for motorcyclists/moped drivers to make sudden changes in lanes or speed as they attempt to avoid a hazard on the road.
- Allow the same 4-second following distance or more you would allow for other vehicles. Increase your following distance behind a motorcycle/moped, when road or weather conditions are bad.

**SHARING THE ROAD WITH TRUCKS AND BUSES**

Whether you are sharing the road with a vehicle, truck, bus or other large vehicle, it is important for safety's sake to obey traffic laws, abide by the rules of the road and drive defensively. There are special rules for sharing the road with trucks and buses, and the following are some suggestions you can use to make your trip safer. The key to safer highways is to know the truck's or bus's blind spot (No-Zone). The No-Zone represents danger areas around trucks and buses where crashes are more likely to occur.

**PASSING A TRUCK**

On a level highway, it takes only three (3) to five (5) seconds longer to pass a truck than a vehicle. On an upgrade, a truck often loses speed, so it is easier to pass than a vehicle. On a downgrade, the truck's momentum will cause it to go faster, so you may need to increase your speed.

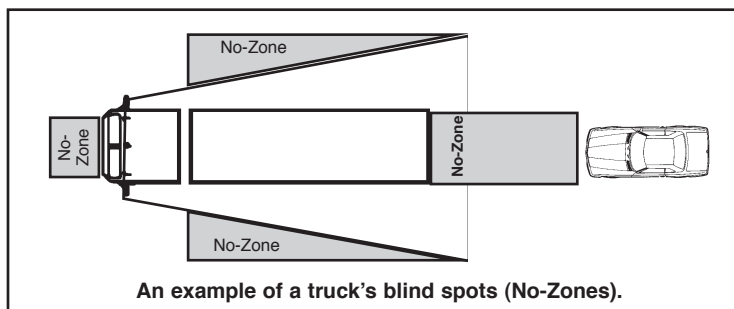
When vehicles cut in too soon after passing and then abruptly slow down, truck drivers are forced to compensate with little time or room to spare.

Make sure there is plenty of space between your vehicle and any vehicle ahead of you in the passing lane so you are not trapped, if the truck begins to pull into your lane. Pass quickly without hanging in the truck's blind spot. Keep both hands on the wheel to deal with the effects of turbulence. You may want to stay to the left side of the passing lane. Complete your pass as quickly as possible, and do not stay alongside the other vehicle. Be sure to move back only when you see the front of the truck in your rearview mirror. After you pass a truck, maintain your speed. Think twice about passing on curves where there is a greater danger of error and a higher collision potential.

**Fact:** Allow yourself plenty of time when passing a truck. At highway speeds, it can take up to 30 seconds to safely pass a truck. When you pass, do so quickly. Do not continuously drive alongside a truck - you are in the truck driver's blind spot. After passing, change lanes only when you can see the truck's headlights or front grill in your rearview mirror.

### TRUCK PASSING

When a truck passes your vehicle, you can help the truck driver by keeping to the far side of your lane. You will make it easier for the truck driver if you reduce your speed slightly and then keep your speed steady. In any event, do not increase your speed while the truck is passing you. Trucks have much larger No-Zones on both sides of their vehicle than passenger vehicles. When you drive in these No-Zones, you cannot be seen by truck drivers. If you are in a truck's blind spot and it begins to move over into your lane, remain calm and take note of your vehicle's position relative to the front of the truck. Decide whether to speed up or slow down to avoid a collision. Consider the shoulder as an escape route.



When you meet a truck coming from the opposite direction, keep as far as possible to the side to avoid a sideswipe crash and to reduce the wind turbulence between your vehicle and the truck. Remember, the wind turbulence pushes vehicles apart. It does not pull them together. Maintain plenty of cushion between your vehicle and any vehicle ahead of you.

### FOLLOWING A TRUCK

Because of their size, trucks need longer distances to stop. However, a vehicle following too closely still may not be able to stop quickly enough to avoid rear-ending the truck. If you are following a truck, stay out of its No-Zone. Avoid following too closely and position your vehicle so the truck driver can see it in his side mirrors. You will then have a good view of the road ahead, and the truck driver can give you plenty of warning for a stop or a turn. You will have more time to react and make a safe stop. When following a truck or bus, if you cannot see the side mirrors of the vehicle in front of you, the driver of the large vehicle cannot see you.

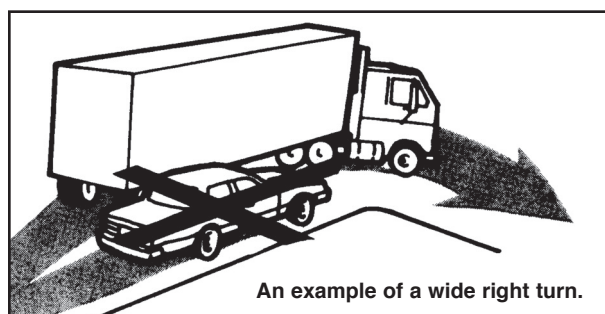
Leave plenty of room between you and the truck when coming to a stop on a hill. Trucks may roll back as a driver takes his or her foot off of the brake.

When you follow a truck or any vehicle at night, always dim your headlights. Bright lights from a vehicle behind will blind the truck driver when they reflect off of the truck's large side mirrors.

**Fact:** At least four (4) seconds are needed to keep you out of the truck's rear blind spot, and here's an easy method to compute the correct distance: As a truck passes a stationary object alongside the road, start counting, one thousand one, one thousand two, etc. You should reach one thousand four just as your front bumper reaches the same object. If you arrive before one thousand four, you are traveling too close to the back of the truck.

### TURNS

Pay close attention to truck turn signals. Truck drivers must make wide turns so the rear of the truck or the rear of a tractor trailer can clear the corner or any other standing obstructions. Sometimes, space from other lanes is used to clear corners. To avoid a crash, do not pass until the turning action is complete. Again, pay close attention to turn signals. *(Refer to the example below.)*



**Fact:** Trucks make wide turns. It may look like trucks are going straight or turning left when they are actually making a right turn. This technique – combined with blind spots alongside the trailer – makes trying to pass a turning truck a dangerous maneuver. Truck drivers cannot see vehicles squeezing in between them and the curb. Stay put, and give truck drivers plenty of room to turn.

**OVERSIZED LOADS**

Oversized loads are accompanied by pilot vehicles. Oversized load movements operate the same as tractor trailers and should be treated with the same rules as trucks. Most oversized loads operate within prescribed lanes; however, due to their excessive width, obstacles on the berm could cause them to cross the yellow or white line.

Pilot vehicles are required by law to help warn motorists of oversized loads and/or slow moving vehicles. Pilot vehicles are required to have special signs and lights to help identify them as such, and drivers should be aware that when they are seen they are approaching an oversized vehicle. When you see these vehicles, please take extra caution.

**BACKING CRASHES**

Never try to cross behind a truck preparing to back up. Often, when a truck driver is preparing to back the truck from a roadway into a loading area, there is no choice but to temporarily block the roadway. It is here that some drivers and pedestrians attempt to pass behind the truck rather than wait the few seconds for the truck to complete its maneuver. In passing close behind the truck, the driver or pedestrian enters the truck's No-Zone, and a crash may occur.

**BRAKING**

Unlike the hydraulic brakes on vehicles, trucks and buses may have air brakes and take longer distances to stop. A loaded truck with good tires and properly adjusted brakes, traveling at 65 mph on a clear, dry roadway, requires a minimum of 600 feet to come to a complete stop (compared to the stopping distance of 400 feet for a passenger vehicle). It is essential to refrain from entering a roadway and if you are turning off of the roadway, to avoid changing lanes in front of a large vehicle.

**ESCAPE RAMPS**

On long downgrades, there may be special "escape" or "runaway" ramps for trucks. These ramps are to be used only by large vehicles that are out of control or cannot stop because of brake failure. Never stop or park in the vicinity of these ramps.

**BUSES**

Buses are vehicles that also take up more room on a road than an ordinary vehicle. The same procedures should be followed when sharing the road with a bus or truck.

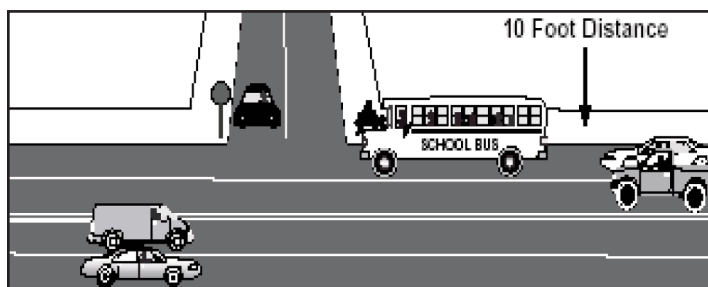
**SCHOOL BUSES**

Pennsylvania has special rules you must follow when you drive near a school bus. These rules protect children and drivers.

When a school bus is preparing to stop, its amber (yellow) lights will begin flashing. When the bus stops with its red lights flashing and its stop arm extended, you must stop at least 10 feet away from the bus whether you are behind it or coming toward it on the same roadway or approaching an intersection at which the school bus is stopped. Remain stopped until the red lights stop flashing, the stop arm has been withdrawn, and the children have reached a safe place (see picture below).

**ALL VEHICLES  
MUST STOP!**

Failure to stop for a school bus with a flashing red light and extended stop arm will result in a 60-day suspension of your driver's license, five (5) points on your driving record and a fine.



There is only one exception to the school bus stopping requirement. If you are approaching a school bus that is stopped with its red lights flashing and stop arm extended and you are driving on the opposite side of a divided highway, (i.e. concrete/metal barriers, guide rails or trees/rocks/streams/grass median), you do not have to stop. Reduce your speed and continue driving with caution.

## EMERGENCY VEHICLES AND SITUATIONS

Certain vehicles have sirens and flashing red lights or a combination of flashing red and blue lights. The lights assist emergency vehicles to move quickly through traffic and to answer emergency calls. Emergency vehicles include fire department vehicles, police cars, ambulances, blood delivery vehicles and specially equipped vehicles from rescue organizations. Watch out for them.

**When you hear a siren or see a vehicle approaching from any direction with flashing red lights or a combination of red and blue lights, you must:**

- Pull over to the curb or side of the road and stop.
- Drive parallel and as near to the curb as possible. On one-way streets, drive toward the nearest roadside and stop.
- Stay clear of intersections.
- Start driving again after the emergency vehicle passes you, keeping at least 500 feet away from it.
- Make sure another emergency vehicle is not coming.

During an emergency situation, all drivers must obey the direction of any uniformed police officer, sheriff, constable or any properly attired person, including fire police.

Take sirens seriously, and make way for an ambulance, fire truck or police vehicle. Someday you may be the one calling for help, or the life on the line might be a friend or family member.

## HORSE-DRAWN VEHICLES AND HORSEBACK RIDERS

There are some important things to keep in mind in areas where you may encounter horse-drawn vehicles or horseback riders. Many horse-drawn vehicles are dark in color and therefore are difficult to see at dawn, dusk or night. When following or stopped behind a horse-drawn vehicle, be sure to leave plenty of room between the two (2) vehicles. After stopping, horse-drawn vehicles often roll backward, and following too close limits the horse-drawn vehicle driver's ability to see you. This will also provide adequate space for when you prepare to pass. When you pass a horse-drawn vehicle or horseback rider, do not drive too fast or blow your horn, as this may spook the horse. Also, to avoid spooking the horse after passing, be sure to leave enough space between your vehicle and the horse before pulling back into the right lane. Always remember, when on the road everyone has the same rights.

## SNOW PLOWS

Plow drivers removing snow in the winter have very limited visibility in their mirrors. Plows must often turn around, and their drivers cannot see you behind them. Be sure to follow at a safe distance. This will help protect your vehicle from being damaged by the salt, de-icing liquids and anti-skid pellets thrown from snow plows.

Also, these vehicles may have wing plows that stick out several feet on either side. These are difficult for drivers to see in bad weather or at night and have been involved in multiple side-swipe accidents. To be safe, you should not attempt to pass a plow, either on the left or on the right.

## DEALING WITH ROAD RAGE

**NEVER** take your anger out on someone else on the road. Sometimes incidents of road rage are caused by simple misunderstandings between drivers. One driver may make a momentary error in judgment that another driver sees as an aggressive act, though none was intended.

**NEVER** take it personally when someone cuts you off or pulls in front of you. Just let it go, and ignore the other driver.

If something does happen, **DO NOT RETALIATE**. It is a serious distraction to focus your attention on a "contest" with another driver. You are less able to respond to traffic signs, signals and the actions of other vehicles or pedestrians, as needed to avoid a crash.

**DO NOT TRY TO TEACH ANOTHER DRIVER A LESSON.** Do not insist on being right, even if you are right. You could be dead right!

### DID YOU KNOW?

Of the approximate 1,500 highway deaths in PA each year, about 60 percent, or around 900, are attributed to aggressive driving.



**Here are some tips to help you stay safe, if you encounter an aggressive driver:**

- Make every attempt to get out of the aggressive driver's way.
- Do not block the passing lane. If someone demands to pass, let them go.
- Do not challenge an aggressive driver by speeding up. It will just make the driver angrier and endanger you.
- Avoid eye contact with a hostile driver.
- Ignore gestures, and do not gesture back.
- Call the police or 911, if you have a cell phone and can do it safely, or have a passenger call.

If an aggressive driver pursues you, do not go home. Instead, drive to a police station, convenience store or other location where you can get help and there will be witnesses.

**DEALING WITH DRIVING EMERGENCIES**

If you are like most drivers, you will not have the chance to practice how you would act in an emergency before it happens. But, knowing what to do in certain critical driving situations can still make a difference. Taking the wrong action or no action when something goes wrong obviously will increase your chances of crashing your vehicle.

**DID YOU KNOW?**

In a review of 12,000 crashes, 37 percent of the drivers took no action to avoid the crash.

**STEERING YOUR WAY OUT OF AN EMERGENCY**

When you have a choice of either braking or steering to avoid a collision, it is usually better if you can steer to avoid the hazard than to brake, particularly at speeds above 25 mph. This is because your reaction time to swerve is faster than your reaction time to brake. But, you must have good steering skills to keep control of your vehicle in an emergency.

As a general rule, you should be holding the steering wheel with both hands. This is especially important in emergencies because evasive steering requires you to turn the steering wheel quickly at least one-half turn in one (1) direction, and then turn the wheel back almost a full circle in the opposite direction, once you clear the object. You then return to center steering to continue moving in your original direction of travel. At higher speeds, less steering input is needed to move your vehicle to the left or right.

Get into the habit of holding the steering wheel as shown at right. If you think of the steering wheel as a clock face, your hands should hold the wheel at either the 9 and 3 o'clock position or the 8 and 4 o'clock position, whichever is the most comfortable. Keep your thumbs along the face of the steering wheel instead of gripping the inside of the rim.



By keeping your hands in this position on the wheel:

- You will be less likely to overcorrect during an emergency steering maneuver, which could cause you to spin out of control or run off of the road.
- It is less likely the air bag will throw your arms and hands back into your face, maybe even breaking them, if you are involved in a crash.
- Your arms will be more comfortable and less fatigued during long drives.

A ten (10) and two (2) o'clock hand position is acceptable; however, if your air bag deploys, you are at risk of injury. There are two (2) ways to use the steering wheel to make a turn. In the "hand-over-hand" method, the driver reaches across the steering wheel to grasp the opposite side and pulls the wheel over the top, repeating as needed. In the "push-pull" method, one (1) hand pushes up on the steering wheel while the other hand slides to the top and then pulls the wheel down, repeating the action until the turn is complete.

**If you cannot avoid a collision, remember this:** Injury prevention in a crash depends mostly on wearing your seat belt properly, having your head restraints properly adjusted, having an air bag in your vehicle and being positioned at least ten (10) inches away from your air bag.

**IF YOU HAVE TO BRAKE SUDDENLY**

If you need to hit your brakes in a hurry, your safety depends on knowing whether your vehicle has conventional or anti-lock brakes (ABS), and how to use them.

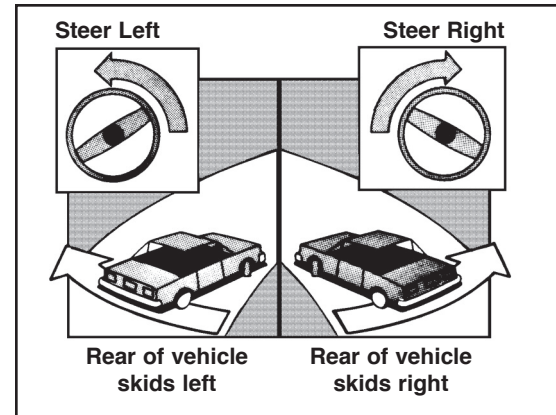
- **Without ABS**, press and release the brakes repeatedly. Pumping the brakes will slow your vehicle and keep it under control. Slamming on the brakes can lock your wheels, causing your vehicle to skid.
- **With ABS**, maintain firm and continuous pressure on the brake - your vehicle will not skid. **Do not pump the brake pedal.** Do not be alarmed by mechanical noises and/or slight pulsations.

You should check your owner's manual to determine what kind of braking system your vehicle has. Do this before you get into an emergency. **Knowing how to apply your brakes in an emergency situation may save your life.**

**IF YOUR VEHICLE STARTS TO SKID**

If your vehicle starts to skid on a wet or icy road, look and steer in the direction you want to go. If the rear of your vehicle is skidding to the left, turn the wheel to the left. If the rear of your vehicle is skidding to the right, turn the wheel to the right. When you steer to correct a skid, another skid may result in the opposite direction, but the second skid will not be as bad as the first. Be ready to stop the second skid the same way - by steering in the direction the rear of your vehicle is skidding. It may take a few of these "corrections" before you have fully regained control of your vehicle.

When skidding, do not use your brakes. If you hit the brakes, the skid will be worse. You risk locking your wheels and losing all steering control.

**FLOODED ROADWAYS**

On flooded roadways, even at low speeds, as little as six (6) inches of water can cause you to lose control of your vehicle or truck and can float some small vehicles. Two (2) feet of water will carry away most vehicles, including sport utility vehicles (SUVs). Once a vehicle floats off of the roadway into deeper water, it may roll and fill with water, trapping the driver and passengers inside. **If there is moving water on the road, the safest thing to do is find another route.**

**IF YOUR ACCELERATOR STICKS**

If the accelerator (gas pedal) sticks, your vehicle may keep going faster and faster.

**If this happens:**

1. Keep your eyes on the road. You can tap the pedal a few times to see if it will spring back to normal, or you may be able to lift it with your toe, but do not reach down to try to free the pedal with your hand.
2. Shift to neutral immediately and use the brakes, if the pedal remains stuck. This will cause your engine to race, but the power will be removed from your wheels.
3. Concentrate on steering and pull off of the road when you have slowed down to a safe speed. Stop, turn off the engine, and put on your emergency flashers.

**NOTE:** If you need to slow or stop quickly, turn your ignition to "OFF." Do not turn it to "LOCK" because you will lose steering ability. Then, apply your brakes. It will require more effort to steer and brake with your ignition off.

**IF YOUR VEHICLE HAS BRAKE FAILURE**

In newer vehicles, a split braking system reduces the possibility of total brake failure. If your brake system warning light comes on, you may have braking in two (2) of the four (4) wheels, probably one (1) front wheel and one (1) rear wheel. This will allow you to pull over to the side of the road or into the next service station. You will feel the brake pedal go down farther than usual before the vehicle begins to slow, and you will need to push harder on the pedal. Your stopping distance is increased, so be aware of where your vehicle is headed. Shifting to a lower gear will help you slow down.

**IF YOU HAVE AN OLDER VEHICLE AND YOUR BRAKES SUDDENLY FAIL, YOU SHOULD**

1. Shift to low gear and look for a place to slow to a stop.
2. Pump the brake pedal quickly several times. This will often build up enough brake pressure to stop the vehicle.
3. Use the parking (emergency) brake if pumping the brake pedal does not work. Hold the brake release so you can let off of the parking brake, if the rear wheels lock, and you begin to skid.
4. Keep your eyes focused on where you are going, and look for a safe place to pull off of the road. Look for an open place to steer into, or steer into an uphill road.
5. Turn your ignition "OFF" as a last resort, if the vehicle still will not stop and you are in danger of crashing. Do not turn it to the "LOCK" position because this will also lock your steering. Then, shift into your lowest gear. This could damage your transmission, so only do this as a last-ditch effort to keep you from crashing.

**After you have stopped your vehicle, call for help. Do not try to drive.**

**IF YOU HAVE A TIRE BLOWOUT**

Sometimes thumping noises start before a tire blows out, but you usually will not know ahead of time when a tire will blow. You should protect against blowouts by keeping your tires in good condition and properly inflated.

When a front tire blows out, your steering wheel will vibrate, and you will feel the vehicle suddenly pull to one side. When a rear tire blows out, one corner of the vehicle will drop suddenly, and you will feel the rear of the vehicle wobble back and forth.

**If one of your tires blows out, do the following:**

1. Hold the steering wheel tightly.
2. Stay off of your brake! Braking after a blowout will cause you to skid and lose control of your vehicle.
3. Slowly take your foot off of the gas pedal.
4. Steer where you want to go, but steer smoothly - do not make large or jerky steering actions.

You can ride on a flat tire as long as you need to, in order to get to a safe spot to pull over and change it. If you have to use your brakes, press them gently. Let the vehicle slow to a stop. Make sure it is off of the road before you change the tire.

**IF YOUR VEHICLE DRIFTS OFF OF THE PAVEMENT ONTO THE SHOULDER**

A serious crash can result, if you do not know how to recover steering control after experiencing a “drop-off” along the edge of the road where the shoulder is lower than the pavement. A “drop-off” can happen, if you are driving too close to the edge of the road or if you drive too fast through a curve and allow your front tire to drift off of the road.

“Drop-offs” are fairly common, especially on rural roads. They can also occur where roads are being resurfaced, and there is a ledge at the shoulder.

A “drop-off” can quickly become an emergency, if you do not know how to recover from it. The most important things to remember are: do not steer sharply, and do not brake suddenly. If you turn the wheel sharply to get back onto the road, it can cause the vehicle to whip sideways and cross into oncoming traffic. If you brake hard with two (2) wheels on the pavement and two (2) wheels on a soft shoulder, the vehicle will probably skid out of control.

**HERE IS WHAT YOU SHOULD DO IF YOU DRIFT OFF OF THE PAVEMENT**

1. Ease off of the gas pedal to slow down when your two wheels on the right side both go off of the pavement. **Do not brake suddenly.** If you must brake to avoid a hazard on the shoulder, use gradual, controlled braking to avoid locking the wheels.
2. Keep a tight grip on the steering wheel, and steer parallel to the roadway with two (2) wheels on the roadway and two (2) wheels off (straddling the drop off edge). Keep the tires from scraping the edge of the pavement. Stay calm and keep a firm grip on the steering wheel. A soft or wet shoulder will pull your vehicle to the right. **Do not steer sharply, trying to get back on the road.**
3. Continue to slow gradually until you are traveling very slowly - less than 25 mph and preferably closer to 10 mph - and you have your vehicle under control.
4. Check for traffic approaching from the rear in the lane you will reenter. Turn on your left turn signal.
5. Gently steer left to ease the right wheels onto the pavement, when it is clear. As soon as you feel your wheels come back onto the road, gently steer right to straighten out.
6. Speed up to match the flow of traffic once you are safely back on the pavement and in complete control of your vehicle.

**IF ANOTHER VEHICLE IS APPROACHING HEAD-ON IN YOUR LANE**

First, honk your horn to attract attention. If the other driver does not move over, try to escape to the right, if possible. If you swerve left and the other driver corrects at the last instant, you will still crash. If a collision is unavoidable, brake firmly and steadily. Every mile per hour you slow down will reduce the impact.

**FUNERAL PROCESSION**

If you see a funeral procession on the road, yield to vehicles in the procession. Once the lead vehicle has cleared an intersection, the rest of the procession may proceed through the intersection, other traffic must yield. Allow the procession to pass, and do not cut in and out of the procession, unless you are directed otherwise by a police officer or an agent or employee of the funeral director during a funeral.

All vehicles in a funeral procession must have their headlights and emergency flashers turned on and bear a flag or other insignia designating them as part of the procession.

Drivers in funeral processions may proceed through a red light or stop sign, if the lead vehicle starts through the intersection while the light was green. In the case of a stop sign, the lead vehicle must first come to a complete stop before proceeding through the intersection. Funeral processions must yield to emergency vehicles.

**CHAPTER 3 REVIEW QUESTIONS****1. TEENAGE DRIVERS ARE MORE LIKELY TO BE INVOLVED IN A CRASH WHEN:**

- A. They are driving with their pet as a passenger
- B. They are driving with adult passengers
- C. They are driving with teenage passengers
- D. They are driving without any passengers

**2. DRIVERS WHO EAT AND DRINK WHILE DRIVING:**

- A. Have no driving errors
- B. Have trouble driving slow
- C. Are better drivers because they are not hungry
- D. Have trouble controlling their vehicles

**3. PREPARING TO SMOKE AND SMOKING WHILE DRIVING:**

- A. Do not affect driving abilities
- B. Help maintain driver alertness
- C. Are distracting activities
- D. Are not distracting activities

**4. THE TOP MAJOR CRASH TYPE FOR 16 YEAR OLD DRIVERS IN PENNSYLVANIA IS:**

- A. Single vehicle/run-off-the-road
- B. Being sideswiped on an interstate
- C. Driving in reverse on a side street
- D. Driving on the shoulder of a highway

**5. WHEN PASSING A BICYCLIST, YOU SHOULD:**

- A. Blast your horn to alert the bicyclist
- B. Move as far left as possible
- C. Remain in the center of the lane
- D. Put on your four-way flashers

**6. WHEN YOU DRIVE THROUGH AN AREA WHERE CHILDREN ARE PLAYING, YOU SHOULD EXPECT THEM:**

- A. To know when it is safe to cross
- B. To stop at the curb before crossing the street
- C. To run out in front of you without looking
- D. Not to cross unless they are with an adult

**7. IF YOU ARE DRIVING BEHIND A MOTORCYCLE, YOU MUST:**

- A. Allow the motorcycle to use a complete lane
- B. Drive on the shoulder beside the motorcycle
- C. Allow the motorcycle to use only half a lane
- D. Pass in the same lane where the motorcycle is driving

**8. WHEN TRAVELING BEHIND A MOTORCYCLE:**

- A. Allow a following distance of at least 2 car lengths
- B. Allow at least 2 seconds of following distance
- C. Allow at least 4 seconds of following distance
- D. Allow a following distance of at least 4 motorcycle lengths

**9. YOU NEED TO USE EXTRA CAUTION WHEN DRIVING NEAR A PEDESTRIAN USING A WHITE CANE BECAUSE:**

- A. He or she is deaf
  - B. He or she has a mental disability
  - C. He or she is blind
  - D. He or she has a walking problem
- 

**10. WHEN DRIVING NEAR A BLIND PEDESTRIAN WHO IS CARRYING A WHITE CANE OR USING A GUIDE DOG, YOU SHOULD:**

- A. Slow down and be prepared to stop
  - B. Take the right-of-way
  - C. Proceed normally
  - D. Drive away quickly
- 

**11. WHO MUST YIELD WHEN A DRIVER IS TURNING AND A PEDESTRIAN IS CROSSING WITHOUT A TRAFFIC LIGHT?**

- A. Whoever started last
  - B. The driver
  - C. Whoever is slower
  - D. The pedestrian
- 

**12. AN ORANGE TRIANGLE ON THE BACK OF A VEHICLE INDICATES THAT VEHICLE:**

- A. Carries radioactive materials
  - B. Takes wide turns
  - C. Travels at slower speeds than normal traffic
  - D. Makes frequent stops
- 

**13. AT NIGHT, IT IS HARDEST TO SEE:**

- A. Road signs
  - B. Pedestrians
  - C. Other motorists
  - D. Street lights
- 

**14. WHEN A TRUCK DRIVER BEHIND YOU WANTS TO PASS YOUR VEHICLE, YOUR SPEED SHOULD:**

- A. Remain steady or decrease
  - B. Change lanes
  - C. Change
  - D. Increase
- 

**15. WHEN SHARING THE ROAD WITH A TRUCK, IT IS IMPORTANT TO REMEMBER THAT, IN GENERAL, TRUCKS:**

- A. Take longer distances than cars to stop
  - B. Require less time to pass on a downgrade than cars
  - C. Require less turning radius than cars
  - D. Require less time to pass on an incline than cars
- 

**16. IF YOU STOP AT A RAILROAD CROSSING WITH MORE THAN ONE TRACK:**

- A. Wait until you have a clear view of both tracks
  - B. Stop on the railroad track and watch for another train
  - C. Go through as soon as the train passes
  - D. Go through when one of the tracks is free
-



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**17. IF YOU ARE FOLLOWING A TRUCK THAT SWINGS LEFT BEFORE MAKING A RIGHT TURN AT AN INTERSECTION, YOU SHOULD REMEMBER THAT IT IS VERY DANGEROUS TO:**

- A. Try to squeeze between the truck and curb to make a right turn
- B. Apply your brakes until the truck has completed the turn
- C. Violate the "4 – second" following distance rule
- D. Honk your horn at the truck driver

---

**18. THE ONLY TIME YOU DO NOT HAVE TO STOP FOR A SCHOOL BUS WHOSE RED LIGHTS ARE FLASHING AND STOP ARM IS EXTENDED IS WHEN YOU:**

- A. Are driving on the opposite side of a divided highway
- B. Are behind the bus
- C. See no children present
- D. Can safely pass on the left

---

**19. WHEN A SCHOOL BUS HAS ITS LIGHTS FLASHING AND ITS STOP ARM EXTENDED, YOU MUST:**

- A. Stop at least 10 feet away from the bus
- B. Pass if children have exited the bus
- C. Stop if the bus is on the opposite side of a barrier
- D. Drive slowly by the bus

---

**20. AFTER A TRAIN HAS PASSED, YOU SHOULD:**

- A. Check again for approaching trains and proceed with caution
- B. Wait for a green light
- C. Proceed across the tracks
- D. Blow horn and proceed

---

**21. IF YOU NEED TO SLOW DOWN OR STOP WHEN OTHER DRIVERS MAY NOT EXPECT IT, YOU SHOULD:**

- A. Quickly tap your brake pedal a few times
- B. Use your emergency brake
- C. Look over your shoulder for traffic in your blind spot
- D. Get ready to blow your horn

---

**22. WHEN YOU ARE PLANNING TO MAKE A TURN, YOU SHOULD ACTIVATE YOUR TURN SIGNALS:**

- A. Only if there are other drivers following you
- B. Just as the front of your car reaches the intersection
- C. 3 to 4 seconds before you reach the intersection
- D. 2 car lengths before reaching the intersection

---

**23. BEFORE PASSING ANOTHER VEHICLE YOU SHOULD:**

- A. Flash your headlights to alert the driver
- B. Turn on your four-way flashers to warn the driver
- C. Give the proper turn signal to show you are changing lanes
- D. Sound your horn to get the drivers attention

---

**24. YOUR BLIND SPOT IS THE AREA OF THE ROAD:**

- A. You cannot see without moving your head
- B. Directly behind your vehicle
- C. You see in your rearview mirror
- D. You see in your side mirror

---

**25. BEFORE PASSING ANOTHER VEHICLE, YOU SHOULD SIGNAL:**

- A. Just before changing lanes
  - B. At any time
  - C. After changing lanes
  - D. Early enough so others know your plans
- 

**26. BEFORE CHANGING LANES ON A MULTI-LANE HIGHWAY YOU SHOULD:**

- A. Sound your horn
  - B. Turn on your headlights
  - C. Reduce your speed
  - D. Check your mirrors and blind spots
- 

**27. WHEN YOU PARK ON THE ROADWAY, YOU SHOULD:**

- A. Use your four-way flashers
  - B. Park at an angle
  - C. Keep your turn signal on
  - D. Turn your lights on
- 

**28. BEFORE BACKING UP, YOU SHOULD:**

- A. Rely on your mirrors to see if it is clear to proceed
  - B. Flash your lights
  - C. Open your door to see if it is clear to proceed
  - D. Turn your head and look through the rear window
- 

**29. TO HELP AVOID CRASHES, YOU SHOULD:**

- A. Communicate with other drivers on the road
  - B. Ignore other drivers on the road
  - C. Drive on side streets and back roads
  - D. Avoid driving during rush hour
- 

**30. THE DRIVER IS:**

- A. Slowing or stopping
- B. Turning left
- C. Turning right
- D. Opening his/her door

**31. IF YOUR TURN SIGNALS FAIL, YOU SHOULD USE \_\_\_\_\_ TO INDICATE YOU ARE TURNING.**

- A. Your horn
  - B. Your headlights
  - C. Hand signals
  - D. Your emergency flashers
- 

**32. WHEN TRAVELING BELOW 40 MILES PER HOUR ON A LIMITED ACCESS HIGHWAY, YOU SHOULD:**

- A. Drive on the shoulder
  - B. Use your high beams
  - C. Sound your horn to warn others
  - D. Use your four-way flashers
- 

**33. YOU SHOULD HONK YOUR HORN WHEN YOU:**

- A. Are travelling through an intersection
  - B. Are passing a bicyclist
  - C. See a child who is about to run into the street
  - D. Are parallel parking
-

---

**34. YOU MUST USE YOUR HEADLIGHTS WHEN OTHER VEHICLES ARE NOT VISIBLE FROM \_\_\_\_\_ FEET AWAY.**

- A. 1000
- B. 1500
- C. 1800
- D. 1200

---

**35. IF A VEHICLE USING HIGH BEAMS COMES TOWARD YOU, YOU SHOULD:**

- A. Turn on your high beams
- B. Turn off your headlights
- C. Sound your horn
- D. Flash your high beams

---

**36. IF A VEHICLE USING HIGH BEAMS COMES TOWARD YOU, YOU SHOULD LOOK TOWARDS \_\_\_\_\_ OF THE ROAD.**

- A. Either side
- B. The center
- C. The right side
- D. The left side

---

**37. YOU MAY HONK YOUR HORN WHEN YOU:**

- A. Have to stop quickly
- B. Are passing another car
- C. Have lost control of your car
- D. Are passing a bicyclist

---

**38. YOUR BRAKE LIGHTS TELL OTHER DRIVERS THAT YOU:**

- A. Are making a turn
- B. Have your emergency brake on
- C. Are changing lanes
- D. Are slowing down or stopping

---

**39. BEFORE TURNING, YOU SHOULD:**

- A. Use your signal
- B. Turn the wheel
- C. Increase your speed
- D. Change lanes

---

**40. THE DRIVER IS:**

- A. Turning left
- B. Slowing
- C. Stopping
- D. Turning right



---

**41. THE DRIVER IS:**

- A. Turning left
- B. Stopping
- C. Slowing
- D. Turning right



---

**42. IF ANOTHER CAR IS IN DANGER OF HITTING YOU, YOU SHOULD:**

- A. Sound your horn
  - B. Wave your arms
  - C. Use your emergency lights
  - D. Flash your headlights
-

**43. IF YOU BEGIN TO FEEL TIRED WHILE DRIVING, THE BEST THING TO DO IS:**

- A. Get some coffee
  - B. Open your window
  - C. Stop driving
  - D. Turn on the radio
- 

**44. THE EFFECT THAT LACK OF SLEEP HAS ON YOUR SAFE DRIVING ABILITY IS THE SAME AS:**

- A. The effect that alcohol has
  - B. The effect that amphetamines have
  - C. The effect that anger has
  - D. The effect that driving with teenagers has
- 

**45. TEENAGERS SHOULD TRY TO GET AT LEAST \_\_\_\_ OF SLEEP EACH NIGHT TO AVOID THE RISK OF DROWSY DRIVING CRASHES.**

- A. 7 hours
  - B. 6 hours
  - C. 8 hours
  - D. 9 hours
- 

**46. IF ANOTHER DRIVER CUTS YOU OFF IN TRAFFIC, YOU SHOULD:**

- A. Pull next to the driver and yell at him or her
  - B. Ignore the other driver
  - C. Flash your high beams at the driver
  - D. Get back at the other driver by cutting him or her off
- 

**47. IF SOMEONE IS DRIVING AGGRESSIVELY BEHIND YOU, YOU SHOULD:**

- A. Try to get out of the aggressive driver's way
  - B. Stare at the driver as he or she is passing you
  - C. Speed up as he or she is passing you
  - D. Block the passing lane
- 

**48. FOR AN AVERAGE PERSON, HOW MANY MINUTES DOES THE BODY NEED TO PROCESS THE ALCOHOL IN ONE DRINK?**

- A. 15
  - B. 60
  - C. 90
  - D. 30
- 

**49. \_\_\_\_\_ LIMIT(S) YOUR CONCENTRATION, PERCEPTION, JUDGMENT, AND MEMORY.**

- A. Only a blood alcohol level greater than the legal limit
  - B. Alcohol does not
  - C. Even the smallest amount of alcohol
  - D. Only a blood alcohol level greater than .05
- 

**50. TAKING DRUGS ALONG WITH ALCOHOL:**

- A. Increases the risk of causing a crash
  - B. Is no more dangerous than alcohol by itself
  - C. Lessens the effect of alcohol on your ability to drive
  - D. Has no effect on your general driving ability
- 

**51. AS ALCOHOL BUILDS UP IN YOUR BLOOD, IT:**

- A. Slows down your reactions
  - B. Makes you feel less confident
  - C. Begins to metabolize itself more quickly
  - D. Decreases your driving errors
-

---

**52. IF YOUR BLOOD ALCOHOL LEVEL IS .04, YOU:**

- A. Are 2 – 7 times more likely to have a crash than a person who has not consumed any
  - B. Are above the legal blood alcohol limit but fine to drive
  - C. Can be very sure that you will drive safely
  - D. Should drink plenty of coffee before getting behind the wheel of your car
- 

**53. WHEN YOU HEAR A FIRE ENGINE SIREN, YOU MUST:**

- A. Slow down until it passes you
  - B. Drive with your flashers on
  - C. Pull over to the side of the road and stop
  - D. Speed up and take the nearest exit
- 

**54. IF YOU HAVE A TIRE BLOWOUT, YOU SHOULD:**

- A. Allow the steering wheel to move freely
  - B. Let the car slow to a stop
  - C. Continue driving until you reach a garage
  - D. Brake hard to stop the car immediately
- 

**55. IF YOUR CAR BREAKS DOWN ON A HIGHWAY, YOU SHOULD:**

- A. Sit in your car and wait for help
  - B. Use your four-way flashers to warn other drivers
  - C. Sound your horn at passing motorists
  - D. Flash your headlights at oncoming traffic
- 

**56. WHEN YOU SEE AN EMERGENCY VEHICLE WITH FLASHING LIGHTS, YOU MUST:**

- A. Slow down and keep moving in your lane
  - B. Keep driving in your lane
  - C. Pull to the curb and stop
  - D. Stop exactly where you are
- 

**57. WHEN DRIVING ON A ONE WAY STREET AND AN EMERGENCY VEHICLE WITH FLASHING LIGHTS IS BEHIND YOUR CAR, YOU:**

- A. Drive with your flashers on
  - B. Drive toward the nearest road side and stop
  - C. Speed up and take the nearest exit
  - D. Slow down until the vehicle passes you
- 

**58. AFTER AN EMERGENCY VEHICLE PASSES YOU WITH ITS SIREN ON, YOU MUST:**

- A. Drive closely to the police car
  - B. Drive as fast as the police car
  - C. Avoid driving closer than 500 feet behind the emergency vehicle
  - D. Drive near the curb very slowly
- 

**59. CRASHES IN WORK ZONES ARE MOST COMMONLY THE RESULT OF:**

- A. Tire blow-outs
  - B. Hydroplaning because of water sprayed on the roadway
  - C. Loss of steering control after driving over wet paint
  - D. Carelessness and speeding
- 

**60. WHEN DRIVING THROUGH A WORK ZONE, IT IS A GOOD SAFETY PRACTICE TO:**

- A. Drive close to the vehicle in front of you to keep traffic flowing freely
  - B. Shorten your usual following distance — by about half
  - C. Turn on your cruise control
  - D. Lengthen your usual following distance — by double
-

---

**61. ON TWO-LANE, TWO-WAY STREETS OR HIGHWAYS, YOU SHOULD START LEFT TURNS:**

- A. Close to the center line
  - B. Close to the outside line
  - C. In the center of the lane
  - D. Anywhere in the lane
- 

**62. TO TURN LEFT ON MULTI-LANE STREETS AND HIGHWAYS, YOU SHOULD START FROM:**

- A. The middle of the intersection
  - B. The right lane
  - C. The left lane
  - D. Any lane
- 

**63. ON A TWO-LANE ROAD, YOU MAY PASS ANOTHER VEHICLE ON THE RIGHT WHEN:**

- A. Driving on a single lane entrance ramp
  - B. The driver you are passing is travelling slower than the posted speed limit
  - C. Never
  - D. The driver you are passing is making a left turn
- 

**64. TO PASS A SLOWER-MOVING VEHICLE ON A TWO-LANE ROAD YOU MUST:**

- A. Not cross the center line
  - B. Flash your lights to oncoming traffic
  - C. Use the shoulder
  - D. Use that lane that belongs to oncoming traffic
- 

**65. THESE PAVEMENT MARKINGS TELL YOU THAT AT THE INTERSECTION AHEAD:**

- A. Center lane traffic may go straight or turn left
- B. You can only turn right from the center lane
- C. The center lane merges into one lane
- D. Center lane traffic must turn left

**66. THE MOST IMPORTANT THING TO REMEMBER ABOUT SPEED MANAGEMENT AND CURVES IS TO:**

- A. Drive at the posted speed limit as you enter the curve, then slow down at the sharpest part of the curve
  - B. Slow down before you enter the curve
  - C. Accelerate gently before you enter the curve
  - D. Drive at the posted speed limit of the roadway, before, throughout, and after the curve
- 

**67. DRIVERS ENTERING A ROUNDABOUT OR TRAFFIC CIRCLE:**

- A. Must stop before entering
  - B. Must yield to drivers in the roundabout or traffic circle
  - C. Have the right of way if they arrive first
  - D. Have the right of way if there are two lanes
- 

**68. THE LAW GIVES \_\_\_\_\_ THE RIGHT OF WAY AT INTERSECTIONS.**

- A. No one
  - B. Drivers turning left
  - C. Drivers going straight
  - D. Drivers turning right
- 

**69. AT AN INTERSECTION WITH A STOP SIGN, YOU SHOULD STOP AND:**

- A. Check your rearview mirror for cars tailgating
  - B. Go when the vehicle ahead of you goes
  - C. Look right first, then left, then right again
  - D. Look left first, then right, then left again
-



---

**70. WHEN ENTERING A HIGHWAY FROM AN ENTRANCE RAMP, YOU SHOULD GENERALLY:**

- A. Enter above the speed of traffic to get ahead
  - B. Enter slowly to avoid other vehicles
  - C. Stop first, then slowly enter traffic
  - D. Accelerate to the speed of traffic
- 

**71. WHEN EXITING A HIGHWAY, YOU SHOULD SLOW DOWN:**

- A. On the main road, just before the exit lane
  - B. Once you see the toll booth
  - C. Once you have moved into the exit lane
  - D. When you first see the exit sign
- 

**72. WHEN DRIVING ON A FREEWAY ENTRANCE RAMP, YOU SHOULD LOOK FOR A GAP IN FREEWAY TRAFFIC BY:**

- A. Looking in the inside rearview mirror only
  - B. Looking in the sideview mirror only
  - C. Looking in both rearview and sideview mirrors
  - D. Looking in your mirrors and turning your head to look over your shoulder
- 

**73. IF YOU WANT TO GET OFF OF A FREEWAY, BUT YOU MISSED YOUR EXIT, YOU SHOULD:**

- A. Go to the next exit, and get off of the freeway there
  - B. Make a U-turn through the median
  - C. Pull onto the shoulder and back your car to the exit
  - D. Flag down a police officer for an escort back to your exit
- 

**74. YOU ARE WAITING TO TURN LEFT AT A MULTILANE INTERSECTION, AND OPPOSING TRAFFIC IS BLOCKING YOUR VIEW, YOU SHOULD:**

- A. Accelerate rapidly when the first lane you need to cross is clear
  - B. Wait until you can see all the lanes you need to cross before going ahead with your turn
  - C. Wait for the opposing driver to wave you across the intersection
  - D. Edge your car into each lane of opposing traffic as soon as it clears
- 

**75. WHEN NO SIGNS, SIGNALS, OR POLICE TELL YOU WHAT TO DO AT AN INTERSECTION, THE LAW STATES THAT:**

- A. Drivers on the right must yield to drivers on the left
  - B. There are no laws stating who must yield
  - C. Drivers going straight must yield to drivers turning left at the intersection
  - D. Drivers turning left must yield to drivers going straight through the intersection
- 

**76. "HIGHWAY HYPNOSIS" IS A DRIVER CONDITION THAT CAN RESULT FROM:**

- A. Staring at the roadway for long periods of time
  - B. Frequent rest stops
  - C. Too much sleep the night before your trip
  - D. Short trips on expressways
- 

**77. WHEN PASSING ON A MULTI-LANE HIGHWAY:**

- A. Be sure the passing lane is clear
  - B. Pass only on the right
  - C. Watch for oncoming traffic
  - D. There is no need to signal
-

---

**78. THE "FOUR-SECOND RULE" REFERS TO HOW ONE SHOULD:**

- A. Yield to other cars
  - B. Turn at stop signs
  - C. Follow another car
  - D. Cross an intersection
- 

**79. IT IS BEST TO KEEP A SPACE CUSHION:**

- A. Only in back of your vehicle
  - B. Only on the left and right side of your vehicle
  - C. Only in front of the vehicle
  - D. On all sides of the vehicle
- 

**80. ALLOWING A SPACE CUSHION IS IMPORTANT BECAUSE IT:**

- A. Prevents distractions from other vehicles
  - B. Allows you time to react to situations
  - C. Keeps traffic flowing at a safe pace
  - D. Keeps other drivers alert
- 

**81. ALLOW A LARGER SPACE CUSHION WHEN STOPPING:**

- A. On an up-hill
  - B. At an intersection
  - C. At a stop sign
  - D. At a toll plaza
- 

**82. WHEN MAKING A TURN, YOU MUST \_\_\_\_\_ YOUR SPEED.**

- A. Increase
  - B. Maintain
  - C. Vary
  - D. Reduce
- 

**83. WHEN DRIVING IN TRAFFIC, IT IS SAFEST TO:**

- A. Fluctuate your speed to keep alert
  - B. Drive faster than the flow of traffic
  - C. Drive slower than the flow of traffic
  - D. Drive with the flow of traffic
- 

**84. THE MAXIMUM SPEED LIMIT IN THIS STATE IS \_\_\_\_\_ MILES PER HOUR .**

- A. 55
  - B. 50
  - C. 60
  - D. 65
- 

**85. DRIVE BELOW THE POSTED SPEED LIMIT WHEN:**

- A. Anything makes conditions less than perfect
  - B. Others drive below the speed limit
  - C. Entering a highway where there are other cars
  - D. You are on a four lane road
- 

**86. THE AMOUNT OF SPACE YOU NEED TO CROSS TRAFFIC DEPENDS ON THE:**

- A. Road and weather conditions and oncoming traffic
  - B. Presence of a stop sign
  - C. Use of your turn signals
  - D. Cars behind you
-

---

**87. YOUR ABILITY TO STOP IS AFFECTED BY:**

- A. Signal lights
  - B. Other cars on the road
  - C. The time of day
  - D. The condition of the road
- 

**88. WHICH OF THE FOLLOWING IS TRUE ABOUT THE SPEED AT WHICH YOU TRAVEL?**

- A. The safe speed to drive depends on many conditions
  - B. Driving slowly is always safer
  - C. The speed limit is always a safe speed
  - D. Accelerating is always dangerous
- 

**89. TO PREPARE FOR ANYTHING COMING UP IN THE ROAD AHEAD, YOU SHOULD:**

- A. Continually scan the entire road and roadsides
  - B. Stare straight ahead at all times
  - C. Drive with your left foot resting lightly on the brake pedal
  - D. Maintain focus toward the middle of the road
- 

**90. AT HIGHWAY SPEEDS, ON A DRY ROAD, A SAFE FOLLOWING DISTANCE IS AT LEAST:**

- A. 3 seconds of following distance from the car ahead of you
  - B. 2 seconds of following distance from the car ahead of you
  - C. 4 seconds of following distance from the car ahead of you
  - D. 2 car lengths of following distance from the car ahead of you
- 

**91. WHAT CAN YOU DO TO AVOID THE NEED TO MAKE EMERGENCY (OR "PANIC") STOPS WHILE DRIVING IN TRAFFIC?**

- A. Honk your horn to make others aware of your presence
  - B. Look ahead and maintain a safe following distance
  - C. Drive in the right lane only
  - D. Drive slower than the flow of traffic
- 

**92. WHEN FACED WITH ONE ONCOMING CAR TO THE LEFT AND A BICYCLIST TO THE RIGHT, YOU SHOULD:**

- A. Pull onto the shoulder
  - B. Split the difference
  - C. Let the car pass and then pass the bike
  - D. Pass the bike quickly
- 

**93. IF AN ONCOMING DRIVER IS HEADING TOWARD YOU IN YOUR LANE, YOU SHOULD:**

- A. Steer right, blow your horn, and accelerate
  - B. Steer left, blow your horn, and brake
  - C. Steer right, blow your horn, and brake
  - D. Stay in the center of your lane, blow your horn, and brake
- 

**94. IF THE REAR OF YOUR VEHICLE STARTS TO SKID LEFT, YOU SHOULD:**

- A. Steer left
  - B. Hit your brakes
  - C. Accelerate
  - D. Steer right
-

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**95. THE MOST EFFECTIVE THING YOU CAN DO TO REDUCE YOUR RISK OF GETTING INJURED OR KILLED IN A TRAFFIC CRASH IS:**

- A. Wear your seat belt
  - B. Limit your driving to week days
  - C. Stay in the right lane on multi-lane highways
  - D. Limit your driving to times between 3:00 p.m. and 6:00 p.m.
- 

**96. WHEN DRIVING ON SLICK ROADS, YOU SHOULD:**

- A. Take turns more slowly
  - B. Change lanes quickly
  - C. Accelerate quickly
  - D. Brake hard
- 

**97. WHICH OF THE FOLLOWING IS TRUE ABOUT DRIVING ON A WET ROADWAY?**

- A. As you drive faster, your tires become less effective
  - B. Water does not affect cars with good tires
  - C. Deeper water is less dangerous
  - D. As you decrease your speed, the roadway becomes more slippery
- 

**98. WHEN DRIVING ON SLIPPERY ROADS, YOU SHOULD:**

- A. Use alternate routes
  - B. Drive as you would on dry roads
  - C. Increase your following distance
  - D. Avoid crossing bridges or intersections
- 

**99. WHEN DRIVING ON WET ROADS, YOU SHOULD:**

- A. Drive the speed limit
  - B. Drive slightly faster than the speed limit
  - C. Drive 5 to 10 miles below the speed limit
  - D. Stay close to the vehicle ahead
- 

**100. WHEN DRIVING ON WET ROADS, YOU SHOULD:**

- A. Increase following distance to 5 or 6 seconds
  - B. Decrease following distance to 2 seconds
  - C. Not be concerned about following distance
  - D. Maintain the 4-second following distance rule
- 

**101. ROADS FREEZE MORE QUICKLY WHEN THEY ARE:**

- A. Flat
  - B. Curvy
  - C. In the sun
  - D. Shaded
- 

**102. ROADS BECOME VERY SLIPPERY:**

- A. When it has been raining for an hour or more
  - B. The day after it rains
  - C. For the first 10 to 15 minutes of a rain storm
  - D. Right after the rain has stopped
- 

**103. HYDROPLANING IS USUALLY CAUSED BY:**

- A. Excessive stops
  - B. Sudden stops
  - C. Sudden turns
  - D. Excessive speed
-

- 
- 104. HYDROPLANING CAN BE HELPED BY DRIVING:**
- A. Through shallow water
  - B. Faster
  - C. Slower
  - D. Through deep water
- 
- 105. WHEN DRIVING IN FOG, YOU SHOULD USE YOUR \_\_\_\_\_.**
- A. Low beam headlights
  - B. High beam headlights
  - C. Parking lights
  - D. Hazard flashers
- 
- 106. COMPARED TO DRIVING DURING THE DAY, DRIVING AT NIGHT IS:**
- A. Less dangerous
  - B. No more or less dangerous
  - C. More dangerous
  - D. Easier on your eyes
- 
- 107. ANYTHING THAT REQUIRES YOU TO \_\_\_\_\_ COULD CAUSE YOU TO CRASH.**
- A. Take your eyes off the road
  - B. Take your hands off the wheel
  - C. Take your attention away from the driving task
  - D. All of the above
- 
- 108. DISTRACTED DRIVERS ARE AT A GREATER RISK OF A CRASH WHEN THEY ARE USING WHICH OF THE FOLLOWING:**
- A. CD player
  - B. Radio
  - C. Cell phone
  - D. All of the above
- 
- 109. WHEN YOU ARE IN A LINE OF TRAFFIC THAT IS CROSSING A RAILROAD TRACK THAT HAS NO SIGNALS OR GATES:**
- A. You have the right of way and do not need to check for trains
  - B. You may pass slower drivers crossing the track
  - C. You need to make sure there is space to get all the way across the tracks without stopping, before you start to cross
  - D. All of the above
- 
- 110. WHEN APPROACHING A STOPPED SCHOOL BUS WITH ITS RED LIGHTS FLASHING AND ITS STOP ARM EXTENDED, YOU MUST:**
- A. Stop 5 feet away from the bus
  - B. Stop only if you see children are present
  - C. Stop and remain stopped until it appears safe to proceed
  - D. Stop and remain stopped until the red lights stop flashing and the stop arm has been withdrawn
-

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**CHAPTER 3 ANSWER KEY**

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1. C	41. A	81. A
2. D	42. A	82. D
3. C	43. C	83. D
4. A	44. A	84. D
5. B	45. C	85. A
6. C	46. B	86. A
7. A	47. A	87. D
8. C	48. B	88. A
9. C	49. C	89. A
10. A	50. A	90. C
11. B	51. A	91. B
12. C	52. A	92. C
13. B	53. C	93. C
14. A	54. B	94. A
15. A	55. B	95. A
16. A	56. C	96. A
17. A	57. B	97. A
18. A	58. C	98. C
19. A	59. D	99. C
20. A	60. D	100. A
21. A	61. A	101. D
22. C	62. C	102. C
23. C	63. D	103. D
24. A	64. D	104. C
25. D	65. A	105. A
26. D	66. B	106. C
27. A	67. B	107. D
28. D	68. A	108. D
29. A	69. D	109. C
30. A	70. D	110. D
31. C	71. C	
32. D	72. D	
33. C	73. A	
34. A	74. B	
35. D	75. D	
36. C	76. A	
37. C	77. A	
38. D	78. C	
39. A	79. D	
40. D	80. B	