

# Safety Tips-June 2011

## *Sharing the Road*

### Cars and Motorcycles

It is extremely important for you to watch for and pay careful attention to motorcyclists when you are on the road.

- Half of all motorcycle accidents involve normal drivers, just like you.
- Almost two-thirds of these accidents are the fault of the driver, not the motorcyclist.

The chief reason for accidents between cars and motorcycles is the driver's inability to see the motorcyclist. There are several reasons why a driver may not see a motorcyclist:

- Motorists tend to look for other cars, not for smaller vehicles like motorcycles, and since the physical profile of a motorcyclist is much smaller than a car, the motorcycle is not noticed.
- Estimating a motorcyclist's distance and speed is difficult for many drivers;
- Motorcycle riding requires frequent lane movement to adjust to changing road conditions, which makes it harder for drivers to keep track of a motorcyclist's location.

**Accidents between cars and motorcycles are most likely to occur in the following situations:**

- a. **Left Turns.** The most common accident between cars and motorcycles is at intersections, when an automobile driver is making a left turn in front of an oncoming motorcycle. Over 40% of all motorcycle accidents occur at intersections.
- b. **Car's Blind Spot.** Motorcyclists riding alongside a lane of cars are often out of the view of the driver in the car's "blind spot." An unsuspecting driver may collide with a motorcyclist as the driver tries to change lanes.
- c. **Hazardous Road Conditions.** Motorcyclists have to be much more concerned about road obstructions such as potholes, fallen tree branches, and railroad tracks. These may be minor problems for drivers but are serious concerns to motorcyclists that may require them to slow down or change lanes.
- d. **Weather Conditions.** When the road is wet or icy, motorcyclists'

- braking and handling abilities are impaired.**
- e. **Strong Winds.** A strong gust of wind can move a motorcycle across an entire lane if the rider is not prepared for it. Wind gusts from large trucks in the other lanes can also be a hazard.
  - f. **Obscured Visibility.** Large vehicles such as vans, buses or trucks can block a motorcyclist from a driver's view. The motorcyclist may seem to suddenly appear from nowhere.

Motorcyclists are required to take certain precautions to protect themselves, although no amount of precaution can protect them from thoughtless drivers.

**Motorcycle riders are required to make themselves as visible as possible in traffic by:**

- A. Driving with their headlights on;
- B. Riding in the left wheel track of the car ahead of them, so that the driver can clearly see them in the rear-view mirror.

Virginia Law requires motorcycle riders to ride with helmets. Motorcycle helmets must be clearly marked and indicate that they comply with all applicable safety standards.

Intelligent motorcycle riders wear ample additional body protection including gloves, knee pads, and heavy shoes or boots.

No amount of precautions, however, can protect a motorcyclist from the serious injuries caused by a collision with a four-wheel vehicle.

If you drive aware and considerate of motorcyclists, you can help to keep the streets and roadways safe for everyone.

Defensive Driving Techniques 2.2

*Large Trucks and RVs*

To reduce the chances of an accident with a large truck, motorists should be familiar with their physical capabilities and how they maneuver.

### ***Braking***

Large trucks take much longer to stop than a car traveling at the same speed. The average passenger vehicle traveling at 55 MPH can stop in about 225 feet (not including reaction time). However, a large truck traveling at the same speed can take more than 400 feet to stop (not including reaction time). Never pull in front of a large truck and suddenly slow down or stop. The trucker will not be able to stop quickly enough to avoid crashing into you.

## ***Turning***

For all turning vehicles, the rear wheels follow a shorter path than the front wheels. The longer the vehicle, the greater the difference. This is why truck drivers must often swing out to the left as the first step in making a right turn. When you follow a big rig, look at its turn signals before you start to pass. If you think the truck is turning left, wait a second and check its turn signals again. The driver may actually be turning right.

## ***Trucker's Blind Spots***

Many automobile drivers falsely assume that a trucker can see the road better than they can because they are higher off the road. While truckers do have a better forward view and bigger mirrors, they still have serious blind spots where your vehicle can easily get lost from view. If you stay in their blind spots, you eliminate the truck driver's ability to take evasive action to avoid dangerous situations.

Generally speaking: *If you can't see the truck driver in his or her side mirror, he or she can't see you.*

These blind spots are often called the "No Zone."

## ***Maneuverability***

Trucks are not as maneuverable as passenger vehicles. Large trucks have longer stopping and acceleration distances. They take more space for turns and they weigh more. On multi-lane highways and freeways, large trucks usually stay in the center portion of the lane to help the flow of traffic. This also increases the trucker's options in case he or she must change lanes to avoid a hazard. Trucks are not as maneuverable as passenger vehicles. Large trucks have longer stopping and acceleration distances. They take more space for turns and they weigh more. On multi-lane highways and freeways, large trucks usually stay in the center portion of the lane to help the flow of traffic. This also increases the trucker's options in case he or she must change lanes to avoid a hazard.

Here are some of the most common mistakes passenger vehicle drivers must avoid when driving around large trucks:

- Cutting off a truck in traffic or on the highway to reach an exit or turn
- Cutting into the open space in front of a truck
- Speeding up to pass a truck so one can exit the roadway
- Lingering alongside a truck when passing
- Following too closely or tailgating
- Underestimation of the size and speed of an approaching tractor-trailer

Cutting off a truck in traffic or on the highway to reach an exit or turn, or cutting into the open space in front of a truck, is dangerous. Trying to beat a truck to a single-lane construction zone, for example, removes the truck driver's cushion of safety and also places you in danger. Slow down and take your turn entering the construction zone.

Don't speed up to pass a truck so you can exit the roadway. Take a moment to slow down and exit behind a truck – it will only take you a few extra seconds.

Don't linger alongside a truck when passing. Always pass a large truck on the left side and, after you have passed the truck, move ahead of it. If you linger beside the truck, you make it very difficult, if not impossible, for the trucker to take evasive action if an obstacle appears in the road ahead.

When you follow behind a truck and you cannot see the truck driver's rearview mirrors, the trucker has no way of knowing you are there. Tailgating a truck, or any vehicle, is dangerous because you take away your own cushion of safety.

Never underestimate the size and speed of an approaching tractor-trailer. A large tractor-trailer often appears to be traveling at a slower speed because of its size. Many accidents involving a passenger vehicle and large truck occur at intersections because the passenger vehicle driver did not realize how close the truck was or how quickly it was traveling.

### ***School Buses***

When you come upon a school bus stopped on either side of the road with flashing red lights, you must STOP, and remain stopped as long as the red lights are flashing.

These lights, located at the top front and top back of the bus, are a warning for you to stop because children are preparing to get on or off of the bus and will be crossing the road.

Failure to remain stopped is against the law. You may be fined up to \$1000 and your driving privilege could be suspended for one year.

If the bus is on the other side of the concrete divider of a divided highway, you do not need to stop.

### ***Light Rail Vehicles (LRVs)***

Light rail vehicles, including trams, trolleys, streetcars, cable-cars and other vehicles on tracks, have the same rights and responsibilities on public roadways as do all other vehicles.

Although everyone must follow the same traffic laws, light rail vehicles, because of their size and limited maneuverability, require special consideration.

Here are some specific steps you should take to safely share the road with light rail vehicles:

- Be aware of the routes on which light rail vehicles operate. Maintain a safe distance from an LRV if it shares a street with vehicular traffic.
- Be aware that buildings, trees, etc. cause blind spots for LRV operators, just like all other drivers.
- Never attempt to "beat" an LRV to an intersection. Treat LRV crossing gates the same as you would any railroad gate, and never try to go around them when they are closed.
- Look both directions for approaching LRVs before you cross their tracks. Never make a turn in front of an oncoming LRV.
- When you turn across LRV tracks, if a signal is present, turn only when the signal indicates you may proceed. In many cases, LRVs can preempt traffic signals, so do not proceed forward until the signal light indicates you may do so.
- LRV tracks can become extremely slippery and hinder effective steering, particularly when wet. Never drive directly on top of their tracks, wet or dry.
- Attempt to cross tracks at a 90 degree angle, a shallower angle may cause your vehicle to lose traction, particularly motorcycles and bicycles.

### ***Buses and Streetcars***

Do not drive through a mass transit safety zone -- the space that may be set aside for pedestrians and marked by raised buttons or markers on the roadway, near where a mass transit vehicle would slow down or board passengers.

When people are boarding or leaving a mass transit vehicle where there is no safety zone, stop behind the nearest door or vehicle platform and wait until the people have

reached safety.

When a bus or streetcar is stopped at a safety zone or at an intersection where traffic is controlled by a police officer or traffic signal, you may pass it at no faster than 10 MPH, and only when it is safe to do so.

### Defensive Driving Techniques 2.3

#### *Safety precautions.*

Don't think that once you've learned how to drive you don't need to sharpen your skills. If you compare novice and experienced drivers, it is easy to see that an experienced driver makes fewer mistakes. Experience helps you to stay alive, regardless of the situation. There are two ways of gaining that kind of experience: by having accidents or by learning in a school. We offer you an easy way to mature as a driver: we teach you to be aware of the potential dangers of the move you intend to take, and to be confident on the road.

When you are crawling along behind what you're sure is the slowest car in the world, your first instinct is to pass. Regardless of your motive, you must realize that passing is very risky. In order to pass safely, you must take several precautions – or else your first pass will be your last.

First let's do some math. If the car you wish to pass is driving 45 MPH and you are moving at 65 MPH, you have only 20 MPH to work with. If you weren't able to start passing immediately you'd probably have to slow down to 45 MPH, keeping a 3-second safety distance (approximately 196 feet). If you wish to pass immediately, you must carefully watch the oncoming traffic and make your plan. Safe passing distance consists of the sum of your car length (approximately 12'), the length of the car you wish to pass (another 12'), and the safe distance when moving at 45 MPH (approximately 396'), for a total of 420 feet. At that speed, your car can pass the other car in 14 seconds, but at the same time the distance you will have to cover will increase a little, by about a quarter-mile.

That extra-quarter mile is not the only thing you have to worry about: oncoming traffic should be your main concern, because a head-on collision between two cars, both moving at 65 MPH, is equal to hitting a brick wall at 130 MPH. In that same 14 seconds, an oncoming car driving at 65 MPH covers another quarter mile. All together you have a full half-mile to consider. In other words, before passing, check carefully to see that you have ample space. Also, remember that passing should only be done on a straight, flat (or downhill) road—passing on a curve or uphill is not only unsafe, it's against the law.

To learn how to pass safely, practice calculating the time and distance needed for passing. Choose an oncoming car and measure the time it takes for it to pass you. As you're deciding whether to pass or not to pass, remember that bright sunlight or bad

weather will affect your estimation of the amount of room you need to pass. A good rule of thumb to keep in mind is that if you and any oncoming traffic are both moving at 65 MPH, you will need about 30 seconds to pass a car moving at 45 MPH. And if you misjudge an oncoming car's speed, or if you are not sure that you have enough room, then swerve back into place as quickly as possible.

### ***Tricky curves.***

You always want to predict and prevent unpleasant situations. If a car begins to go out of control, an experienced driver will look for a safe spot to steer for. But it's easier to predict and avoid such situations than it is to learn how to handle them. One of the most difficult situations is negotiating a sharp curve.

The basic rule is not difficult: to be more stable on a curve you should be accelerating slightly, so don't brake unless it is absolutely necessary. This technique has one danger, however: excessive speed can pull your car off the road. To avoid this, enter the curve as close to its outer side as possible, then drive toward the middle of the curve on the inner side of it. As you complete the curve you have to drive toward the outer side of it once again. This technique allows you to make a wider, easier turn on a sharp curve. Don't forget the speed limit – a good practice is to brake a little bit before entering the curve to allow room for accelerating through the curve.

Good shock absorbers are also necessary, or else inertia will throw your car from the curve if you drive on uneven pavement.

**Remember that trucks with long trailers have a tendency to move to the inside of the curve, especially on mountainous roads or steep grades. If you are traveling alongside a truck who is on the outer line of the curve, let it move ahead of you. And it's also dangerous when a truck with a long trailer enters a curve with your car from the opposite direction. The best solution is to keep driving on the inside of the curve.**

