





## Chapter 8

# Sharing The Roadway



### **You Are the Driver!**

As a driver, you will be sharing the roadway with a variety of other vehicles and pedestrians. These other users present their own special problems in every driving environment. Many vehicles are small in size and, like pedestrians, have very little protection if a conflict with a larger vehicle occurs.

What problems might the motorcyclist and bicyclist have in this traffic scene? What should the car driver predict? This chapter explores problems presented by other roadway users and explains your responsibility for protecting other less-protected users.

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## 8.1

# Sharing the Roadway with Motorcyclists

### Objectives

1. Tell why you have the responsibility for protecting motorcyclists.
2. Explain how to use the IPDE Process to protect motorcyclists.
3. Describe situations where you should look for motorcyclists.

Even though many drivers will never ride a motorcycle, they will be safer drivers if they understand problems involved in the cyclist's driving task. Motorcyclists have the same privileges within the HTS as drivers of other vehicles. They also share an equal responsibility for following safe driving practices.

Even though motorcycle registrations make up a very small percentage of all vehicle registrations, about 2,000 cyclist fatalities occur each year. Injuries and deaths from motorcycle crashes result primarily from the exposed position of the rider. Unlike the driver of a larger vehicle, a motorcyclist has little or no protection when conflicts occur.

As a driver of a larger vehicle, you must accept the major share of responsibility for protecting motorcyclists as they interact within the HTS. Show cyclists the same courtesy you show other drivers.

### Using the IPDE Process

Most low-risk drivers tend to be alert for other cars and larger vehicles that might cause conflict. Because motorcycles are smaller and are driven in several different lane positions, they often are not identified in time to prevent conflict. Make a special effort to use the IPDE Process.

The Identify step is crucial for drivers because motorcycles are more difficult to see. Search all the zones so you will not be surprised by the sudden appearance of a motorcycle.

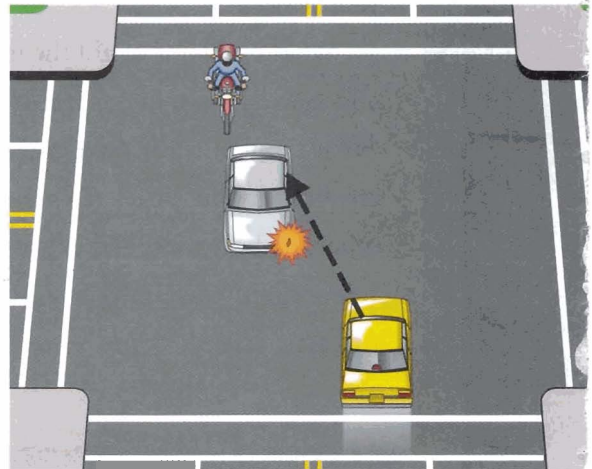
Predict actions of motorcyclists that might enter your path. Base your decisions on the problems that confront the motorcyclist, and execute your actions. Use every technique possible before a closed zone or conflict occurs. The driver in the yellow car in the picture is looking through the approaching car's windows to see the motorcyclist or other roadway users.

### Where to Look for Motorcyclists

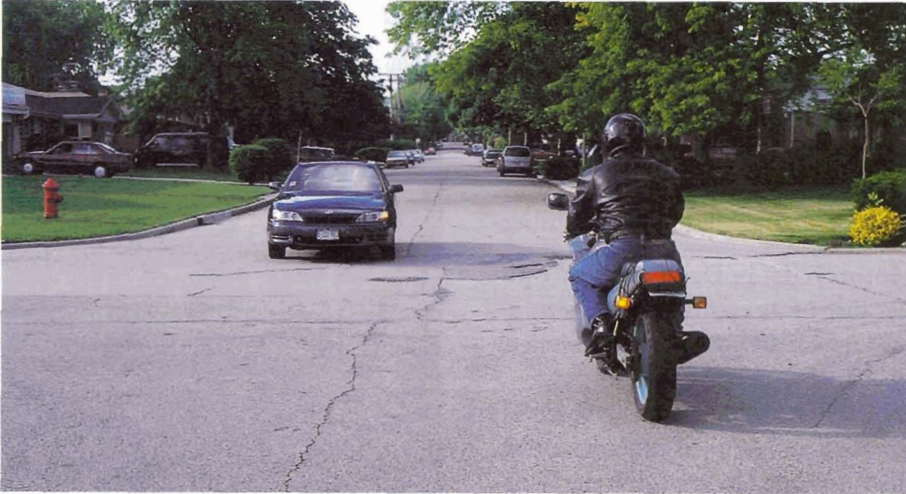
Look for motorcyclists in the following situations.

#### Vehicle Turning Left in Front of Motorcyclist

When you plan to turn left across one or more lanes of traffic, be sure your planned path of travel is clear. Even though the cyclist in the top picture on the opposite page is signaling for a left turn, the car driver



Scan through the windows of other vehicles to see motorcyclists or other roadway users.



The car should let the motorcyclist start the turn first.

should predict that the cyclist will continue straight. The car driver should complete the left turn only after scanning front and side zones and after the cyclist has entered his left-turn path.

When you make left turns at night, be especially watchful for oncoming vehicle headlights. The single headlight of a motorcycle can be confused with a larger vehicle that has only one working headlight.

**Vehicle Turning Right at Intersection or Driveway** Drivers of larger vehicles who do not check their rear zones frequently might not be aware of traffic to the rear. Therefore, they may turn right directly in front of a motorcyclist, as the picture below shows.

**Motorcyclist Turning Left** When you are approaching an intersection and there is oncoming traffic, expect



**You Are the Driver!**

How could you have avoided a possible conflict with this motorcyclist?

smaller vehicles to appear in your path. An approaching motorcyclist who is about to turn left could be blocked from your view. Search your front zones and be aware of any limited sight distance to your left. Be prepared to act to avoid conflict.

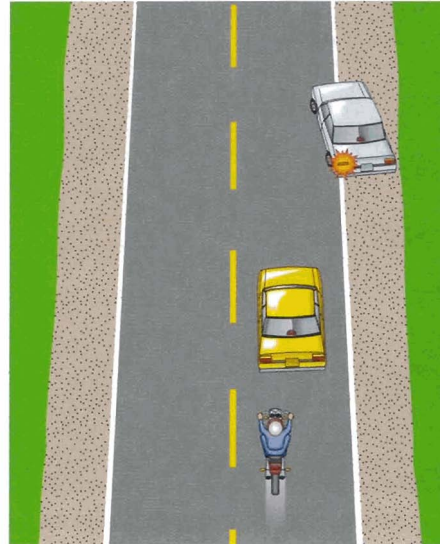
#### **Motorcyclist in Driver's Blind Spot**

Because of its relatively small size, a motorcycle is often difficult to see in the blind-spot areas behind your vehicle. The roof-support columns on the back and sides of vehicles add to the problem. Always check the blind spots in your left- and right-rear zones by glancing over your shoulder before turning or changing lanes.

**Tailgating Motorcyclist** The only way to know if you are being tailgated by a motorcyclist is to check your rear zone often. When you see a tailgating cyclist, try to avoid sudden braking. If the driver of the yellow car in the picture brakes suddenly to let the car on the shoulder in, the tailgating motorcyclist could lose control. The motorcyclist does not have enough following distance to stop in time. Check your rearview mirrors often and increase your following distance if a cyclist is following you.

**Motorcyclist Passing Vehicle on Right or Left** Check your rearview mirrors and blind spots frequently as part of your visual search pattern. Anticipate that motorcyclists will pass you. The failure of many drivers to check their rearview mirrors and blind-spot areas can easily lead to conflict with motorcyclists.

Be especially aware of being passed on either the right or left at



Watch for tailgating motorcyclists if you must slow or stop suddenly.

an intersection where there may be more space. Even though motorcyclists should not pass at intersections, always watch for them so you can avoid conflict. When you are being overtaken by a motorcyclist, maintain both your lane position and your speed.

#### **Motorcyclist Meeting an Oncoming Vehicle**

You are more likely to see an oncoming motorcyclist in the daytime if the motorcycle's headlight is on. Many states require that the motorcycle's headlight be on at all times. All motorcycles manufactured today have the headlight come on when the ignition is turned on. Whenever you see an oncoming motorcyclist, stay on your side of the roadway until the motorcyclist has passed. Remember also that having your headlights on at all times makes you more visible to the cyclist.



### **SAFE DRIVING**

**Motorcyclists should never assume that all other drivers see them. They should make every effort to be as visible as possible in the traffic scene.**



## Passing a Motorcyclist

Never tailgate a cyclist before passing. The appearance of a very close vehicle in the cyclist's rearview mirror could cause an unexpected action and result in conflict. When you plan to overtake and pass a motorcyclist, stay well back until you start to pass.

When the way is clear, execute your passing maneuver. Use the entire left lane for passing, as the car driver in the picture is doing. When you can see the cyclist in your rearview mirror, signal, check your right blind-spot area, and return to the right lane.

## Protecting Motorcyclists

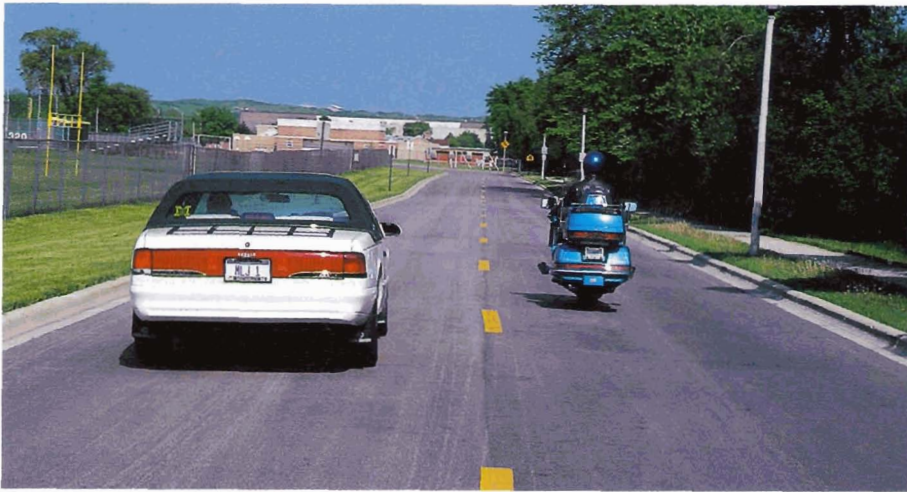
Unlike a driver protected inside a larger vehicle, a motorcyclist is fully exposed to dangers that could cause injury or death. For this reason, you must accept an extra share of responsibility for avoiding conflicts with cyclists. With a larger vehicle

under your control, you have the power to cause far more harm than a cyclist. Handle this power with respect.

Develop an attitude of helping others who are less protected. Make it your responsibility to demonstrate habits and behavior that show you care for the safety of your fellow roadway users.

**Motorcyclists Can Lack Experience and Skill** Be alert when approaching a cyclist. Predict judgment and control errors due to inexperience and lack of skill. Some motorcyclists ride rented or borrowed cycles and might not have enough practice to develop sound judgment and good control. Others, who own their own motorcycles, might not have received proper riding instruction.

**Handling Traits of Motorcycles** Help protect motorcyclists by being aware of the handling traits of motorcycles and how they operate.



Use the entire lane when passing a motorcyclist.



Motorcyclists lean when making turns. Watch a motorcyclist's shoulders to anticipate turns.

Notice in the picture that the motorcyclist leans to the side when making a turn. Control of a motorcycle is difficult in a turn or sharp curve. The cyclist can have even more difficulty handling the cycle in a strong wind, or if the roadway is rough or slippery.

### **Increase Your Following Distance**

A motorcyclist's balance and stability depend on two small areas of tires that grip the roadway. Water, sand, oil, wet leaves, potholes, or loose gravel reduce traction and can make motorcycle control even more uncertain.

Watch for a motorcyclist's balance and stability problems. Predict that the cyclist might swerve or even fall. Give cyclists extra space by increasing your following distance.

### **Make the Motorcyclist Aware of You**

When following a motorcyclist, do not assume the cyclist is aware of your presence. Traffic and wind noises make it more difficult for the cyclist to hear. Protective helmets worn by cyclists might also muffle some traffic sounds.

The small size of the mirrors on the handlebars and the vibration of the motorcycle can restrict the motorcyclist's view to the rear. Keep extra space in your front zone when you think a cyclist is unaware of your presence.

### **Review It**

1. Why must drivers of other vehicles accept responsibility for protecting motorcyclists?
2. How can you use the IPDE Process to help protect motorcyclists while driving?
3. Where are five places you should look for motorcyclists while driving?



## Motorcyclist Actions Can Affect You

**A**lthough you share the responsibility for protecting motorcyclists, they have the primary responsibility for avoiding conflict. How motorcyclists ride, how they use protective equipment, and how they handle special problems affect all other roadway users.

### How Motorcyclists Ride

Because motorcyclists share the roadways with others and present special problems, they should develop safe riding skills. All states offer motorcycle safety courses taught by instructors certified by the Motorcycle Safety Foundation. Proper training and widespread helmet use have helped reduce motorcycle fatalities. The student riders in the picture are practicing balance and turns in a motorcycle-riding course taught by a certified instructor.

With proper instruction and training—and an attitude of responsibility and caring—motorcyclists can become cooperative, low-risk users of the HTS.

### Braking and Accelerating

A vehicle driver needs only to step on the foot brake to stop a vehicle. However, a motorcyclist must operate separate brakes for front and rear wheels. A lever on the right handlebar operates the front brake. This brake supplies most of the braking power for stopping. A foot pedal controls the rear brake. A cyclist must coordinate both foot and hand brakes carefully for maximum braking. If either brake is applied too hard it can lock and cause loss of control.

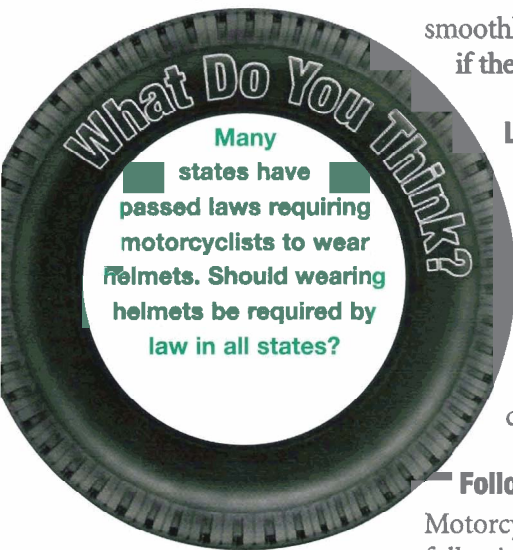
A motorcyclist must coordinate the hand throttle, hand clutch, and foot-gearshift lever to accelerate

### Objectives

1. Explain the difference in acceleration and braking abilities between motorcycles and other vehicles.
2. Describe the protective equipment motorcyclists should wear.
3. Explain motorcyclists' special riding problems.



Taking a certified training course can help motorcyclists reduce their risks.



smoothly. Balance problems can occur if these actions are not coordinated.

### Loss of Balance

Unlike four-wheel vehicles, a motorcycle might have difficulty remaining upright while in motion. Be alert and anticipate that the cyclist can lose control, especially if the roadway is wet or covered with oil drippings.

### Following Distance

Motorcyclists should increase their following distance to reduce risk of collisions. Increased following distance also helps prevent cyclists from being hit by pebbles or dirt thrown back by the vehicle ahead. As a driver, check your rearview mirror often. Be aware of following motorcyclists, and avoid making sudden stops.

### Use of Protective Equipment

Because other vehicles can severely injure motorcyclists in a collision, motorcyclists must make every effort to protect themselves. Cyclists can reduce or prevent injuries by using **protective equipment**, as has the rider in the picture.

A motorcyclist's protective equipment includes the following items:

- helmet—the headgear worn to reduce or prevent head injuries
- eye-protection—goggles or a face shield
- heavy shoes or boots
- full-length pants and jacket made of durable material
- full-fingered gloves

Helmets are required by law in most states and are important in saving lives. In a collision, a cyclist who does not wear a helmet is far more likely to suffer fatal neck and head injuries than a rider who does wear a helmet.

### Special Riding Problems

Weather and roadway conditions present greater problems to cyclists than they do to drivers of other vehicles. Allow extra time and space for motorcyclists in all adverse weather conditions. When following motorcyclists who are crossing railroad tracks or carrying passengers, leave extra space.

**Adverse Weather Conditions** A motorcyclist cannot cope with adverse weather conditions as well as a driver in a four-wheel vehicle can. For example, a puddle might hide a pothole that jolts your vehicle.



Protective gear helps protect a motorcyclist.

That same hidden pothole can throw a motorcycle out of control.

Like drivers of other vehicles, the worst time for motorcyclists is immediately after it starts to rain. As rain mixes with dirt and oil on the roadway, traction is greatly reduced. Because balance is important for motorcycle control, reduced traction is far more critical to motorcyclists.

You can turn on your windshield wipers when it rains. When dirt from the roadway splashes up on the windshield, you can use windshield washers. A cyclist has neither device. Therefore, the motorcyclist's vision is greatly reduced and can be distorted under these conditions.

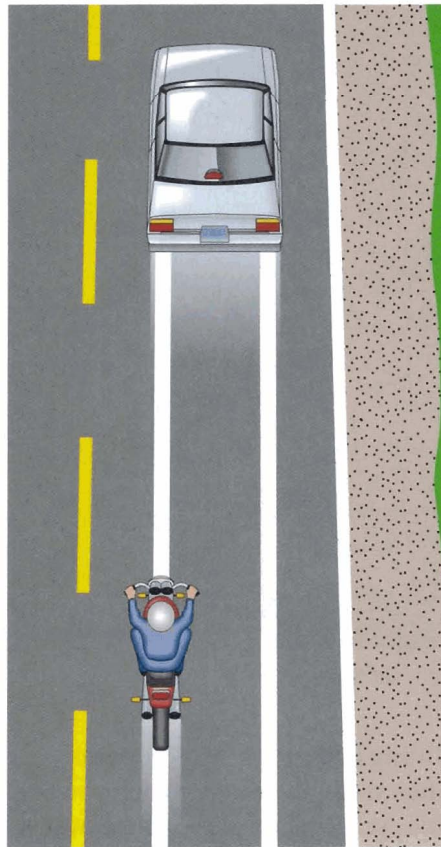
Motorcyclists should use extra caution when riding on or crossing painted lines on a wet roadway. Painted lines can become slippery when wet. Motorcyclists gain extra traction on wet roads by riding in another vehicle's wheel track, as the picture shows.

### **Motorcyclist Crossing Railroad**

**Tracks** Railroad tracks are a special problem for motorcyclists. Motorcycle tires can get caught in the grooves of the crossing, causing the motorcyclist to lose balance. A cyclist should cross railroad tracks as close to a right angle as possible, as long as this does not cause the cyclist to enter another lane.

### **Motorcyclists Carrying Passengers**

A motorcycle carrying two people requires extra caution from other vehicle drivers. Be alert for a difference in acceleration, braking, and turning when a motorcyclist is carry-



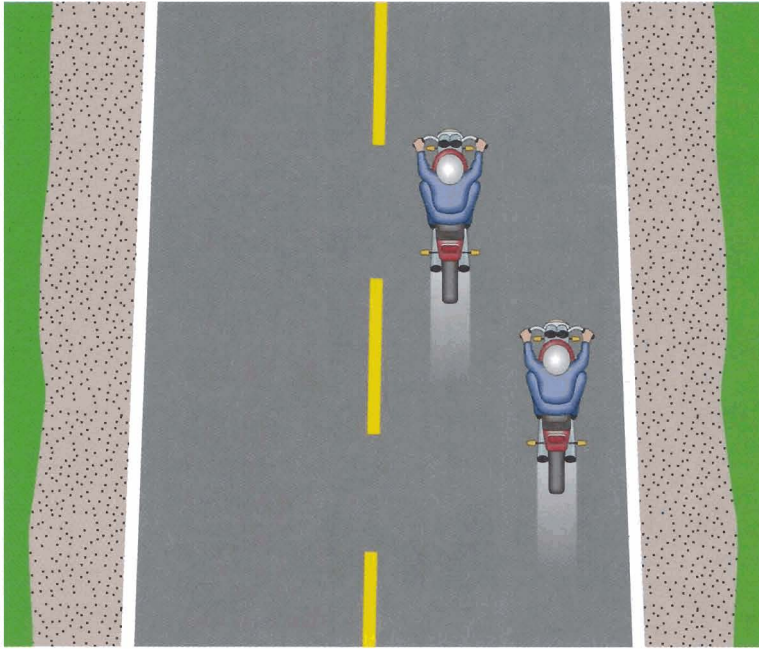
Motorcyclists can gain traction on wet roads by riding in another vehicle's wheel track.

ing a passenger. A passenger can create balance and control problems for the cyclist by leaning the wrong way in curves and turns.

### **How Motorcyclists Can Help Other Vehicle Drivers**

Motorcyclists should use all their skills and techniques to reduce their risks of conflicts. However, nothing the cyclist does should diminish the caution other drivers must practice near motorcyclists. Remember, you must always be ready to yield to cyclists.





By riding offset, motorcyclists are more easily seen.

**Riding in Groups** Motorcyclists often travel in groups. When you see one cyclist, be prepared to see others. Cyclists should not ride side by side in traffic. They should be in an offset position, as the picture shows. By riding offset, each cyclist is more easily seen by others and has more space to swerve safely, if necessary.

Like you, motorcyclists should prepare for turns by moving into the correct lane well before the turn. If they are riding in groups, they should be in single file as they approach, enter, and complete the turn.

**Being Visible in Traffic** Motorcyclists should position themselves in traffic so other roadway users can easily see them. Riding in lane position 2 usually makes a motorcyclist

more visible. A rider in the correct position is visible to the driver ahead as well as to oncoming drivers.

Riding in lane position 2 also forces other drivers to use the other full lane to pass. This position adds a degree of safety to the passing maneuver. It also reduces the chance that the cyclist will be forced off the roadway.

Motorcyclists should not ride between lanes of moving vehicles. This practice is dangerous for everyone. In many states it is illegal.

**Riding at Night** It is far more difficult for drivers of other vehicles to judge the speed and position of a motorcycle at night. Because a motorcycle's taillight is relatively small, drivers behind may have difficulty seeing it.

Motorcyclists should take added precautions when riding at night. They can make themselves more visible by putting reflective tape on helmets and clothing and by having reflectors on the motorcycle.

### Review It

1. How do a motorcycle's braking and acceleration differ from those of other vehicles?
2. What protective equipment should a motorcyclist use?
3. What special riding problems can affect a motorcyclist's control?

**B**icycles and low-powered, two-wheel vehicles continue to be popular for transportation, recreation, and business. Bicycles use no gasoline, create no pollution, and provide exercise for the rider. Because of their small sizes, mopeds and motor scooters create very little pollution and provide an economic means of transportation.

Users of smaller two-wheel vehicles have the same privileges and responsibilities as other drivers. Riders of these vehicles should use the IPDE Process and develop a visual search pattern to help themselves be more aware of possible conflicts with other roadway users. However, drivers of larger vehicles, with their greater protection, must accept the major responsibility for avoiding conflict.

Just as you have a major responsibility for protecting motorcyclists, you should be even more cautious and aware of these smaller vehicles because they are so unprotected.

### Bicyclists' Responsibilities

Bicyclists must share the responsibility for avoiding conflicts with other roadway users.

Be a responsible bicyclist by following these safe-riding practices:

- Wear a helmet for protection. Know and follow the laws regarding roadway riding, lane position, and sidewalk riding.
- Obey all signs, signals, and laws.

- Wear light-colored clothing and have lights and reflectors on bicycles when riding at night.
- Do not wear earphones while bicycling. Wearing earphones while bicycling or driving a motor vehicle is illegal in many states.
- Keep bicycles in safe operating condition.

When riding at night use a headlight that is visible for at least 500 feet. Reflective tape on the frame and fenders of your bicycle, as well as on your helmet, adds safety for night riding.

### Protecting Bicyclists

As a driver of a larger vehicle, give bicyclists extra space whenever possible. Some bicyclists might not be able to control their bicycles well. When following a bicyclist, be aware of the possible path the bicyclist might take. Vehicle doors opening, railroad tracks, storm drains, potholes, puddles, and other roadway hazards may cause a bicyclist to swerve into your path.

Use the IPDE Process constantly as you encounter bicyclists. Scan wide enough to include the sides of the roadway as well as sidewalks. Try to build into your visual search pattern a special awareness of bicyclists and where they might be. Allow more time and space for bicyclists to change their intended path of travel.

### Preventing Conflicts with Bicyclists

Passing bicyclists on a two-lane

### Objectives

1. Tell how you can help protect bicyclists from conflict.
2. List the guidelines that moped and motor scooter drivers should follow when riding.

DRIVE RIGHT  
**DID YOU KNOW?**

**BICYCLING ON WET ROADS** Wet or slippery roadways can be especially dangerous for bicyclists. Hand-operated brakes on a bicycle do not operate effectively when the bicycle wheels are wet. Bicyclists should allow a greater stopping distance under these conditions.



roadway presents a problem for both drivers and riders. Consider the position of the cyclist in traffic when you plan to pass.

Start your passing maneuver well behind the bicyclist. You should have at least one-half lane between your vehicle and the bicyclist, as the picture shows. Be even farther away if the traffic lanes are narrow.

Use these techniques to further prevent conflicts with bicyclists:

- Check rear zones and signal early when you plan to slow or stop.
- Help others identify a bicyclist by adjusting your position. At night, use low-beam headlights or a flick of high-beam headlights so that others can see the cyclist.
- Reduce speed and increase space when you are unsure of a bicyclist's control.
- Look for bicyclists before opening the street-side door of your vehicle.

Large tricycles have become popular in many communities, especially in retirement areas. Even though these tricycles are larger than most bicycles and are more readily visible, they can present a hazard. Be alert for and protective of riders of these large tricycles when they are a part of your traffic environment.

### **Mopeds and Motor Scooters**

A **moped** is a two-wheeled vehicle that can be driven with either a motor or pedal. Its name comes from *motor-driven bicycle* and *pedal-driven*



To pass a bicyclist safely, move to lane position 2.



bicycle. Like a bicycle, a moped can be pedaled and can be stopped with a hand brake. Like a motorcycle, a moped is powered by an engine and controlled by a hand throttle.

A **motor scooter** is also a low-powered two-wheeled vehicle. It is more powerful than a moped. A motor scooter is similar to a motorcycle, though most motor scooters require no shifting.

### **Moped and Motor Scooter**

**Restrictions** Most states require moped and motor scooter operators to have an operator's license. Mopeds and motor scooters are restricted from certain high-speed roadways. Both the speed and the acceleration of mopeds are limited. Because they do not accelerate to traffic speed as quickly as a motorcycle or other vehicles, they may be unable to keep up with the traffic flow.

**Responsibilities of Moped and Motor Scooter Drivers** Even though these vehicles are smaller than motorcycles, their drivers also can benefit from taking a rider-training course.

In addition to observing laws and local requirements, moped and motor scooter drivers should follow these guidelines:

- Wear protective clothing. At night, wear clothing that has reflective tape on it, as the picture shows.
- Have the headlight on at all times.
- Position the vehicle in the lane so it can be seen by others.
- Keep a space cushion between themselves and other vehicles.
- Use extra care when riding on wet or slippery surfaces.



Reflective tape makes the motor scooter rider more visible to other drivers at night.

- Concentrate on the driving task and use the IPDE Process.

Drivers of other larger vehicles should predict possible sudden actions from drivers of mopeds and motor scooters. Be especially alert when driving near a moped or motor scooter.

### **Review It**

1. In what ways can you help protect bicyclists?
2. What guidelines should drivers of mopeds and motor scooters follow?

### Objectives

1. Explain why you should use extra caution and care to protect pedestrians.
2. List areas where you can expect to see pedestrians.
3. Explain procedures to follow to clear the way for emergency vehicles.

**O**f all highway users, pedestrians are the most vulnerable.

Motorists have a strong moral and legal obligation to protect pedestrians in every situation.

### Pedestrians

Many pedestrians who do not drive are not fully aware of traffic laws and signals. Children and older people are most at risk. Children are less visible to drivers and often lack the judgment to know when it is safe to cross streets. Older people may not hear or see well and may be unaware of possible conflicts.

Other adult pedestrians may just get careless. They are drivers of vehicles and fully understand traffic laws. However, when they are in a hurry or are trying to escape bad weather, they may take chances and forget the risks involved.

Communicate with pedestrians so they will know you are there. A tap on the horn or a wave of your hand can give the message that you are there. Use the IPDE Process continually and always be ready to yield to pedestrians.

Learn where you can expect to see pedestrians and be extra alert when approaching the following areas.

**Alleys and Driveways** Approaching a sidewalk from an alley can be risky if a pedestrian or a bicyclist suddenly appears. The driver in the picture should expect movement from either side when approaching the sidewalk.

Make two stops when driving from an alley. First, stop before the sidewalk and look both ways for pedestrians and bicyclists. Tap your horn as a warning. Second, be prepared to stop.



Be especially alert for pedestrians as you drive out of an alley or driveway because buildings can obstruct your view. Be prepared to stop.

pared to stop again as you look for traffic just before you enter the street.

**Business Districts** Many collisions involving pedestrians occur at intersections and crosswalks in business districts where there is often a high volume of traffic. Many pedestrians assume that drivers will yield the right-of-way to anyone in the crosswalk. Drivers, however, are often looking at traffic signals and other vehicles and may not see the pedestrian in time to avoid a conflict.

Rain and snow often cause pedestrians to be more concerned about protection from weather than protection from traffic. Be extra alert under these conditions. It is often difficult to identify pedestrians at night and during adverse weather conditions.

**Residential Areas** Many residential streets are used by children as play areas, as the picture shows.

Regardless of the legal aspect of children playing in the street, it is the driver's responsibility and obligation to make the utmost effort to prevent conflict. Search for pedestrians coming from between parked vehicles on residential streets.

**Jogging Areas** Although joggers are safer using a sidewalk or a jogging path, expect to see them on streets and in traffic lanes. Joggers should yield to moving traffic—but do not expect this to happen. Always be ready to slow, steer around, or stop for joggers.



Watch for children playing on the street.

### The Driver as a Pedestrian

As soon as you step out of your vehicle, you are a pedestrian. You no longer have the protective shield of your vehicle. Because you understand traffic rules and laws, you should be a responsible pedestrian.

Exercise special care at night. Wear something white or carry a light, particularly in rural areas. Try to be where drivers expect to see you. Do not walk into traffic lanes from between parked vehicles.

Regardless of the behaviors practiced by some pedestrians, you should always demonstrate an

**DRIVE RIGHT**  
**DID YOU KNOW?**

**STEPPING OFF THE CURB** Many pedestrians who are struck at intersections are hit just as they step into the street. They often walk into the side of a moving vehicle they do not see.



attitude of responsibility in your driving. Remember how destructive a large vehicle can be to these less-protected users. Exercise special care whenever pedestrians are around.

### Parking Lots

Parking lots present a high-risk area for drivers, riders, and pedestrians. Like many residential streets, parking lots sometimes are used as recreational areas. Even though drivers are traveling at low speeds, a bicyclist or a skateboarder can cause conflict. Many property damage collisions and injuries occur in parking lots, even at very slow speeds. As a pedestrian in parking lots, you should look for brake lights and backup lights on parked vehicles.

Follow these guidelines to lower your risk when driving in parking lots:

- Obey parking-lot speed limits.
- Follow the routes for traffic flow. Do not drive diagonally across parking-lot lines.
- Be alert for pedestrians, bicyclists, roller-bladers, and skateboarders.

- Avoid tight parking spaces. Try to avoid parking in end spaces.
- Drive far enough into the space so the front or rear of your vehicle will not extend into the path of moving traffic.
- Position your vehicle properly in the parking space. Secure the vehicle properly.
- Continually scan in all directions when backing out of a parking space. If vision is blocked by a large vehicle, tap the horn before you back out.
- Watch for others who may back out toward you and may not see your vehicle. The drivers in the picture nearly collided because they were not aware that the other driver was backing out.

### Special-Purpose Vehicles

Besides sharing the roadway with cyclists and pedestrians, you must also share it with an increasing number of special-purpose vehicles. Some special-purpose vehicles can be expected at different times of the



## SAFE DRIVING

Be alert for parking spaces designated for “Handicapped Parking Only.” Do not park in these spaces.



Be alert when leaving a parking space.



Allow extra space to increase your sight distance, and use caution when passing.

year. For example, snow plows can be expected in winter months in cold climates. In rural areas large, slow-moving farm machinery should be expected. When mobile homes are being transported, they often are preceded and followed by vehicles that carry a “Wide Load” sign. Use extra caution when meeting or passing such vehicles.

A **recreational vehicle** is a type of vehicle used mainly for pleasure and travel. Some of the more common types of recreational vehicles are vans, motor homes, campers, travel trailers, pickup trucks, and sports utility vehicles. Because of their size, some of these vehicles can decrease your sight distance or completely block your view. Allow these larger vehicles extra space in traffic and increase your following distance.

### **Buses**

Local buses and school buses are the two most common types of buses

you will encounter. Laws governing school buses are more strict than those governing local buses. School buses usually stop for students right in the lane of traffic. Most states require traffic going in both directions on a two-way street to stop when a school bus stops to load or unload passengers. A school bus has flashing red lights and, in some states, a STOP sign that swings out from the side of the bus. Some buses have flashing yellow lights before the flashing red lights begin. Do not proceed until all the lights stop flashing, the STOP sign is withdrawn, and the bus begins to move.

Most states do not require traffic from either direction to stop for local buses. When stopping to discharge or pick up passengers, local buses usually pull in toward the curb out of the lane of traffic. However, just because a stop is not required for local buses, it is your responsibility to keep alert for pedestrians near the bus who might cause a conflict.



Yield to emergency vehicles at all times.

## Emergency Vehicles

Always yield to emergency vehicles with sirens and flashing lights—regardless of the direction the vehicle is traveling. When you see the lights or hear the siren, pull over to the right as far as possible. Stop if there is space and it is safe to do so. The drivers in the picture have pulled off the roadway and stopped.

If you are in heavy traffic, move in the direction other drivers are moving. Leave as much space for the emergency vehicle as possible.

Some drivers become careless about their response to emergency vehicles. They fail to pull over or stop. Not only are they putting themselves and the emergency vehicle at risk, but they may be harming others who are waiting for the emergency vehicle.

Use the following guidelines to protect pedestrians near buses:

- Expect to see school buses more frequently in mornings and afternoons during school opening and closing times.
- Identify school buses by their yellow color, and then be prepared for stops. Expect some local buses to be used as school buses. Although you are not required to stop for local buses, exercise caution when you approach them.
- Expect pedestrians hurrying to catch a bus to be unaware of your presence. Communicate with horn and eye contact.
- Search areas around stopped or parked vehicles that might hide pedestrians.
- Give buses extra space. When passing a stopped bus, be sure no pedestrian who is blocked from view will enter your path.
- Reduce speed and cover the brake, if needed, to give yourself more time to respond.

## Review It

1. Why should you use extra caution for pedestrians?
2. In what areas should you expect to see pedestrians?
3. What steps should you follow to clear the way for an emergency vehicle?



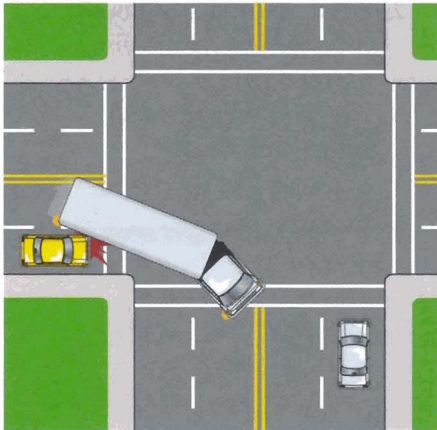
**T**rucks help transport nearly everything we eat, wear, and use in our daily lives. They are an essential part of our national economy.

### Types of Trucks

The three main classifications of trucks are light, medium, and heavy. Most trucks are light or medium and are the types you commonly see as service trucks, pickup trucks, and delivery trucks. Heavy trucks include dump trucks and tractor trailers.

### Tractor Trailers

A truck that has a powerful tractor that pulls a separate trailer is called a **tractor trailer**. The tractor is the front part that includes the engine and the cab. The most common size tractor trailer is the **tractor-semitrailer**. This is a tractor that pulls one trailer and



To avoid conflict, keep out of the open space to the right of a tractor-semitrailer making a right turn.

is commonly called an “eighteen wheeler.” Next in size is the double trailer, two trailers pulled by a tractor. The largest trucks, triple trailers, consist of three trailers pulled by a tractor.

Even though most truck drivers practice a high degree of safe-driving behavior, be aware that there are times when drivers suffer from fatigue or loss of sleep. Drivers often face the problem of tight scheduling and drive over long periods of time.

### Large Trucks Making Right Turns

Many drivers following a tractor-semitrailer assume that if the truck moves to the left it is preparing to make a left turn. However, drivers of large trucks usually swing out to the left as the first step in making a *right* turn. If you begin to pass on the right at that time, you could be caught in the “right-turn squeeze,” as the picture shows. Always check a truck’s turn signals before you start to pass.

### Following Large Trucks

Drivers of large trucks sit high above the road and have an excellent view of the roadway ahead. However, their view to the sides and rear is often restricted by the size of their rig.

Large trucks often create visibility problems for other drivers. When you follow a large truck, the truck causes a line-of-sight restriction.

There are large blind spots in front, to the sides, and to the rear

### Objectives

1. Define “no-zones” around large trucks.
2. Explain precautions to take when following large trucks.
3. List guidelines to follow when passing large trucks.

of every large truck. These blind-spot areas, called **no-zones**, are where truck drivers cannot see other vehicles and where most collisions occur. The picture at left shows these no-zones.

When drivers travel in a truck's no-zones, they put themselves at a high degree of risk because they cannot be seen by the truck driver. When you are following a large truck, increase your following distance to allow clear sight distance ahead. Stay far enough back so you can see the sideview mirrors of the truck. If you can't see one of the driver's sideview mirrors, then the driver can't see you.

### Passing Large Trucks

Whenever possible, plan to pass a large truck when the driver shifts gears to gain speed. Passing is more easily done when you leave a STOP sign or a traffic light. Do not begin to pass until you are both clear of the intersection.

Use the following guidelines when passing large trucks:

- Check front and rear zones, signal a lane change, and change lanes smoothly.
- Stay in lane position 2 during the passing maneuver, and complete your pass as quickly as possible.
- After you can see both headlights in your rearview mirror, signal, check over your right shoulder, and return to the right lane.

**CAUTION:** *In many trucks, the front no-zone can extend over 20 feet. Be sure you are well beyond that distance before you return to the right lane.*

- Do not slow during or after completing the pass. Maintain your highway speed.

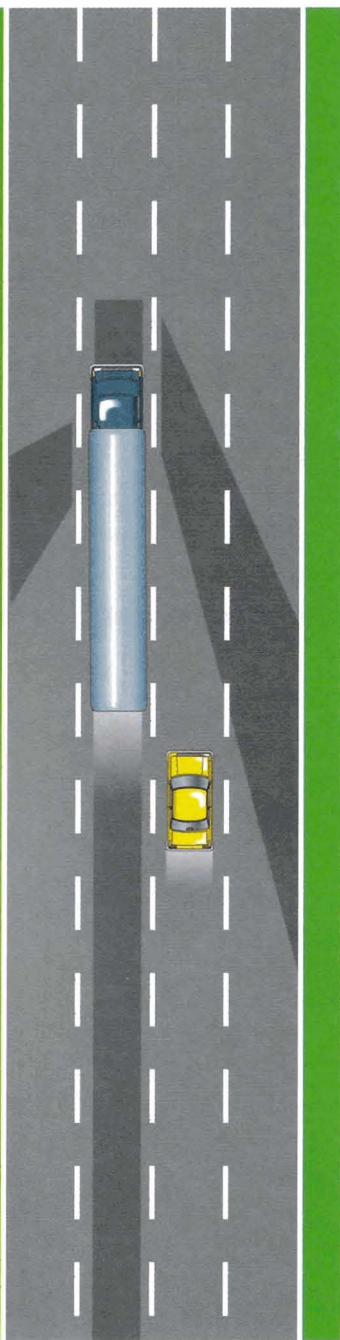
Passing a large truck during rain or snow increases your level of risk. Both traction and visibility are reduced. When passing under such conditions, flash your headlights so the truck driver will know you are passing.

### Meeting Large Trucks

You do not have much room when meeting large trucks on narrow two-lane highways. When you meet a large truck, move to lane position 3. Look well ahead and drive in a straight line. Try to choose a meeting point where the shoulder offers an escape path. Hold the steering wheel firmly because you might encounter a wind gust as you meet the larger vehicle.

### Review It

1. Where are the no-zones?
2. What precautions should you take when following a large truck?
3. How should you pass large trucks?



Stay out of the No-Zones where truck drivers cannot see you.

## Reviewing Chapter Objectives

- 1. Sharing the Roadway with Motorcyclists**
  1. Why do drivers have responsibility for protecting motorcyclists? (150)
  2. How would you use the IPDE Process to protect motorcyclists while driving? (150)
  3. In what situations should you look for motorcyclists while driving? (150–152)
- 2. Motorcyclist Actions Can Affect You**
  4. What is the difference in acceleration and braking abilities between motorcycles and other vehicles? (155)
  5. What protective equipment should motorcyclists wear? (156)
  6. What are motorcyclists' riding problems? (156–157)
- 3. Bicycles, Mopeds, and Motor Scooters**
  7. How can you help protect bicyclists? (160)
  8. What guidelines should moped and motor scooter drivers follow when riding? (161)
- 4. Pedestrians and Special Vehicles**
  9. Why should you use extra caution and care to protect pedestrians? (162)
  10. In what areas will you see pedestrians? (162–163)
  11. What procedures should you follow to clear the way for emergency vehicles? (166)
- 5. Sharing the Road with Trucks**
  12. What are the “no-zones” around large trucks? (167–168)
  13. What precautions should you take when following large trucks? (167–168)
  14. What guidelines should you follow when passing large trucks? (168)

## Projects

### Individuals

**Investigate** Research driving rules or laws in your state as they pertain to motorcyclists. Make a list of rules or laws that motorcyclists must follow that are not required of other drivers.

**Interview** Interview someone you know who drives a truck for a living. Ask the person how driving a truck is different from driving a car. Write a report based on your conversation. (If you don't know anyone who drives a truck, interview a person who drives a motorcycle. Ask how driving a motorcycle is different from driving a car.)

**Observe Traffic** Observe the traffic for fifteen minutes at a busy intersection in your area. Make a record of the different types of vehicles you see (including cars, trucks, bicycles, motorcycles, etc.) Compare your results with those of your classmates.

### Groups

**Debate** Break your group into two and discuss the pros and cons of having two-wheeled vehicles (such as motorcycles, mopeds, and motor scooters) share the roadways with other vehicles.

**Use Technology** Make a group video about bicycle safety. Share the video with your class.



# Chapter 8 Review

## Chapter Test

### Check Your Knowledge

**Multiple Choice** Copy the number of each sentence below on a sheet of paper. Choose the letter of the answer that best completes the statement or answers the question.

1. Why do car drivers have responsibility for avoiding collisions with motorcyclists?
  - (a) Cars need less stopping distance.
  - (b) Motorcycles maneuver more easily.
  - (c) Car drivers have more protection.
  - (d) Motorcyclists have less experience.
2. Which of the following is NOT a safe practice for bicyclists?
  - (a) wearing a helmet
  - (b) obeying signs, signals, and traffic laws
  - (c) having reflectors on bicycles
  - (d) listening to music with headphones while bicycling
3. When meeting a truck on a two-lane road,
  - (a) flash your headlights.
  - (b) pull off the road and stop.
  - (c) move to lane position 3 and drive straight ahead.
  - (d) move to lane position 1 and slow down.

**Completion** Copy the number of each sentence below. After each number, write the word or words that complete the sentence correctly.

4. To reduce risk of collision, motorcyclists should increase their \_\_\_\_\_.
5. Users of mopeds have limited speed and \_\_\_\_\_.
6. Many collisions involving pedestrians occur at crosswalks and intersections in \_\_\_\_\_.

## Unit 2

### Review Vocabulary

Copy the number of each definition in list A. Match the definition in list A with the term it defines in list B.

#### List A

7. two-wheeled vehicle that can be driven either with a motor or pedal
8. large blind-spot areas where truck drivers cannot see other vehicles
9. items a motorcyclist wears to protect head, eyes, and body
10. truck that has a powerful tractor that pulls a separate trailer
11. large vehicle used for pleasure and travel
12. type of tractor trailer commonly called an "eighteen wheeler"

#### List B

- |                    |                         |
|--------------------|-------------------------|
| a. no-zones        | d. recreational vehicle |
| b. tractor trailer | e. protective equipment |
| c. moped           | f. tractor-semitrailer  |

### Think Critically

Write a paragraph to answer each question.

1. Why is it important for drivers of four-wheel vehicles to use the IPDE Process when encountering two-wheel vehicles?
2. Discuss the different ways in which rain and snow affect pedestrians and motorcyclists.



## Decision Making



1. What is the car driver's responsibility in avoiding a collision? How could the car driver have avoided this possible conflict?



2. What is wrong with the motorcyclists' position in the traffic lane? Why is this position hazardous? What is the correct position for the cyclists in the traffic lane?



3. What should the car driver do to clear the way for the emergency vehicle?



4. If you were the driver of the car following this truck, what error would you be making? What procedure should you follow when driving behind a large truck?