





CHAPTER 13

Sharing the Roadway

The society of roadway users includes motorists, pedestrians, and cyclists. It is important to learn how to interact safely with others on the roadways. Good drivers do this by communicating with and anticipating the actions of others.

LESSON ONE

Sharing the Roadway with Pedestrians and Animals

LESSON TWO

Sharing the Roadway with Motorcycles and Bicycles

LESSON THREE

Sharing the Roadway with Other Vehicles

LESSON FOUR

Safe Driving Procedures at Railroad Crossings

OBJECTIVES

1. Describe problems that pedestrians can pose.
2. Explain how to avoid collisions with pedestrians.
3. Describe pedestrian responsibilities.
4. Identify ways drivers can avoid collisions with animals.

KEY TERMS

jaywalking
ground viewing

Sharing the Roadway with Pedestrians and Animals

Drivers must be alert to all roadway users, not just other motorists. Other roadway users such as pedestrians and animals can present special problems. Anticipating these problems can help you protect yourself and others.

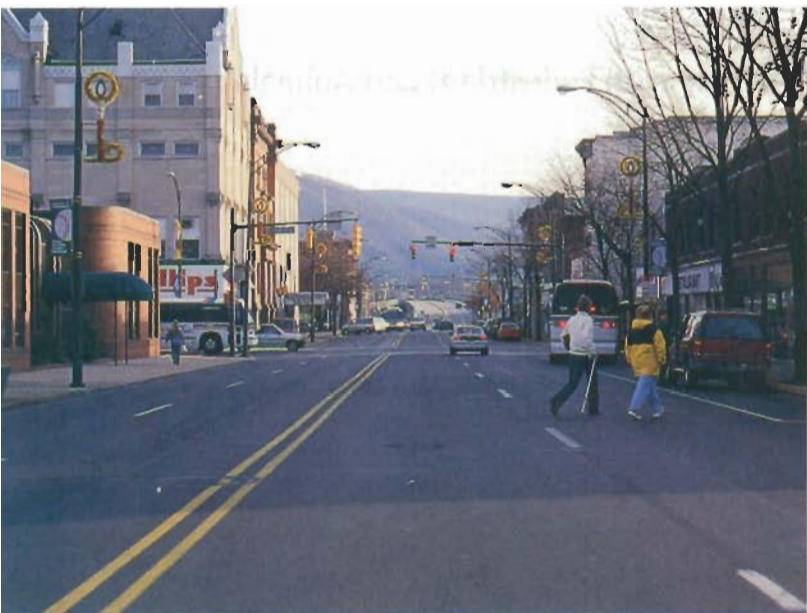
What Problems Do Pedestrians Pose to Drivers?

In 1997, some 5,300 pedestrians were killed and about 77,000 injured in the United States.

Intersections are the most common scene of collisions with pedestrians. Drivers concentrating on traffic, signs, and signals, as well as other roadway users, often fail to see pedestrians until it is too late.

Moreover, pedestrians may be distracted and cross streets without looking. They often run across streets either against a red light or just as a light is turning red.

◆ *Be on the lookout for pedestrians who cross the street illegally or who may need extra time to cross the street.*



Jaywalking, crossing without regard for traffic rules or signals, is a common pedestrian error, as is walking into the street from between parked vehicles.

When traffic is light, pedestrians sometimes cross at places other than intersections because they assume no vehicles are coming. In areas without sidewalks, pedestrians walk in the street or roadway, posing an additional risk to drivers.

Children

Children are at a disadvantage as pedestrians because they're smaller and less visible than adults to drivers. They are also less capable than adults

of judging when it's safe to cross a street and less likely to understand fully the consequences of their misjudgment.

In many urban and suburban areas, children use the street as their playground. When playing on sidewalks, children tend to forget about traffic and dart into the street, often between parked vehicles.

Children on skateboards, sleds, roller skates, or bicycles sometimes lose control and shoot over the edge of a sidewalk into the street.

Adults

Adults should know better than children, but they don't always act that way. Adults commonly jaywalk, particularly when rushing to get somewhere or to escape harsh weather. Adults often assume not only that drivers will see them but that the drivers will always grant them the right-of-way. Making these two assumptions can prove fatal.

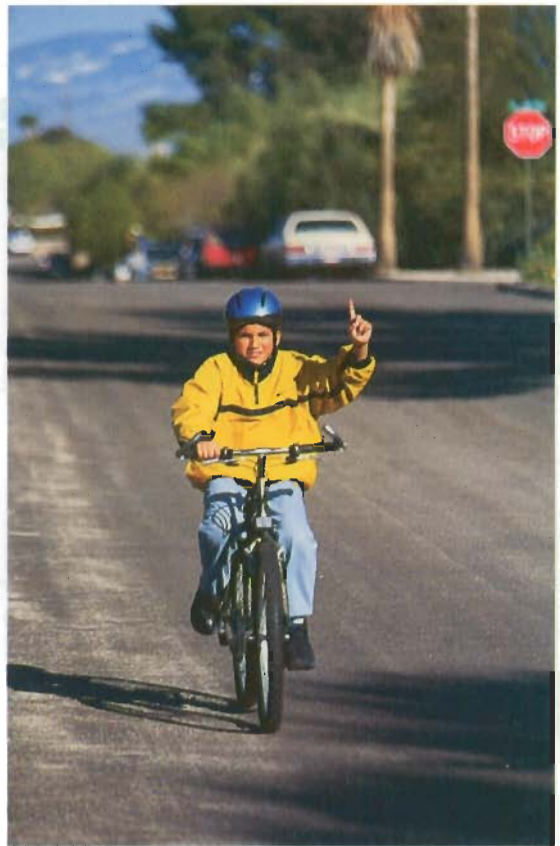
How Can You Avoid Collisions with Pedestrians?

The SIPDE procedure—particularly the first step, Search—is essential to drivers in avoiding and preventing collisions with pedestrians.

Search the roadway and sides of the road continuously as you drive. Watch for children on or near the roadway. Also look for clues that children may be present. Playground and school-crossing signs, toys in a front yard, or a tricycle in a driveway all indicate that children may be nearby.

In residential areas, reduce speed and drive as far away from the curb or parked vehicles as you safely can. Use **ground viewing**, which means searching beneath parked vehicles, for any sign of movement.

Exercise special care at intersections, particularly when you're making a turn. Be alert for people crossing against the light, stepping off a curb prematurely, or rushing to beat a changing light. Watch, too, for pedestrians who need more time to cross a street than the "Walk" signal allows them. Although not exactly a pedestrian, someone riding a skateboard or on roller skates should deserve your attention, especially near intersections.



◆ *Be on the alert for children on bicycles in suburban areas.*

FYI

More than 120 people are killed each year in the United States in collisions with deer and other animals. An equal number are killed when drivers try to avoid striking an animal and instead crash into another vehicle or an object or cause their own vehicle to roll over.



◆ *Because of their size, buses can block your view of pedestrians who are about to cross the street.*

Be alert for adults and children near bus stops, train stations, in school zones, near parks, and in shopping areas.

When backing up, never rely on your rearview mirror alone. Before backing, make certain there is no one behind or next to your vehicle. This is particularly important with regard to children, who may be too small for you to see them when you are behind the wheel.

Never assume a pedestrian can see your vehicle. A pedestrian who is pre-occupied, or who has been drinking, may not notice your approach. You should always be ready to take evasive action. To warn a pedestrian that you are approaching, tap your horn. Blasting a horn loudly could frighten a pedestrian into doing something dan-

gerous. You should always yield to pedestrians. They have the right-of-way, even if they are crossing the road illegally.

What Responsibilities Do Pedestrians Have?

Like drivers, pedestrians, too, must pay attention to rules, signals, and signs. Pedestrians must learn to judge gaps in traffic and then cross streets only when and where it is safe—and legal—to do so.

- Never assume that a driver will see you and stop.
- Cross only at intersections.
- Cross only when the light is green or when a pedestrian signal shows a “walk” symbol.
- Do not step off the curb while waiting for the light to change.
- Pause before crossing to look and listen for approaching traffic.
- When walking on or near a roadway, walk facing traffic.
- When walking or jogging on or near a roadway, wear reflective clothing, especially when visibility is reduced. In addition, do not wear headphones.
- When walking with young children, always take them by the hand when crossing streets.

FYI

Most pedestrians who are hit at intersections are struck just as they step onto the street. Many walk into the side of a moving vehicle that they fail to see.

How Can Drivers Avoid Collisions with Animals?

The dangers posed by animals on the roadway should not be taken lightly. Smashing into a 150-pound deer at 50 miles per hour, for example, will not only kill the animal but will also wreck the vehicle and may well kill the passengers.

The problem of animals on the roadway is particularly severe during the hours between sunset and sunrise, when light conditions limit visibility. Fog can also contribute to vehicle–animal collisions.

Small Animals

Whether it's a cat darting across a city street or a raccoon crossing a highway, small animals cause a surprising number of collisions. In trying to avoid the animal, the driver might swerve and strike another vehicle or a fixed object along the road. Or the driver might slam on the brakes—and be struck in the rear by the vehicle behind. Violent evasive action is not advisable.

Large Animals

Hitting a large animal can prove fatal for both the animal and the vehicle's occupants. Deer are the large animals most often struck, but drivers also have collisions with horses, cows, and other farm animals.

Using SIPDE to Avoid Collisions with Animals

Whether you're driving on city streets or along country roads, using the SIPDE procedure will help you avoid having a collision with an animal.

Be especially cautious when driving through farmland or any wooded areas where you are more likely to encounter deer or other animals alongside or in the road. Search for movement along the sides of the road. At night, search for sudden, unusual spots of light that may be identified as the reflection of your headlights off animals' eyes.

As you're driving, think about what you could do if an animal suddenly darted onto the road and into the path of your car.

FYI

Each year, motor vehicles kill hundreds of thousands of deer, antelope, and other large wild animals.

TIPS

FOR NEW DRIVERS

Pedestrians to Watch For

Certain pedestrians require drivers to pay special attention.

- Elderly pedestrians may have impaired eyesight or hearing. They may move and react slowly and require extra time to cross streets.
- The physically challenged, such as people who are blind and people in wheelchairs, may need extra time to cross streets.
- Pedestrians with strollers or carriages may need extra time to move onto or off a sidewalk.
- Joggers running with their backs to traffic can pose a hazard. Many do not wear reflective clothing, which makes them difficult to see when visibility is low.
- People on the job, such as mail carriers, delivery people, or roadway maintenance workers, may be distracted by their work and step out into the roadway without checking traffic.
- Umbrellas and hooded parkas may impair pedestrians' ability to notice traffic.

SAFETY TIPS

While hitchhiking may be legal in some areas, it is not a safe practice. The hitchhiker has no idea what kind of person the driver is, and there is no guarantee that the hitchhiker will not be robbed or assaulted by the driver, or the driver by the hitchhiker.

What you can do, if you encounter an animal, will depend on the kind of road you're on, traffic conditions, and other factors. As a general rule, try to position yourself so that you have extra room to maneuver. If you're driving on a two-lane road, drive with your headlights on, and when there is no oncoming traffic, move toward the center line to improve visibility. That way, you'll have more room to spot an animal on the side of the road without having to swerve immediately to avoid it. However, always avoid swerving to the left into the path of oncoming vehicles.

Be especially careful when driving at night and in fog. At dusk and dawn, deer move around to feed, and these are also the times during the day when visibility is reduced. If you do spot an animal near or on the road, slow down and be prepared to adjust speed or position as necessary. Leave as wide a safety margin as you can when driving around or past an animal. If you spot one animal, assume that others are nearby.

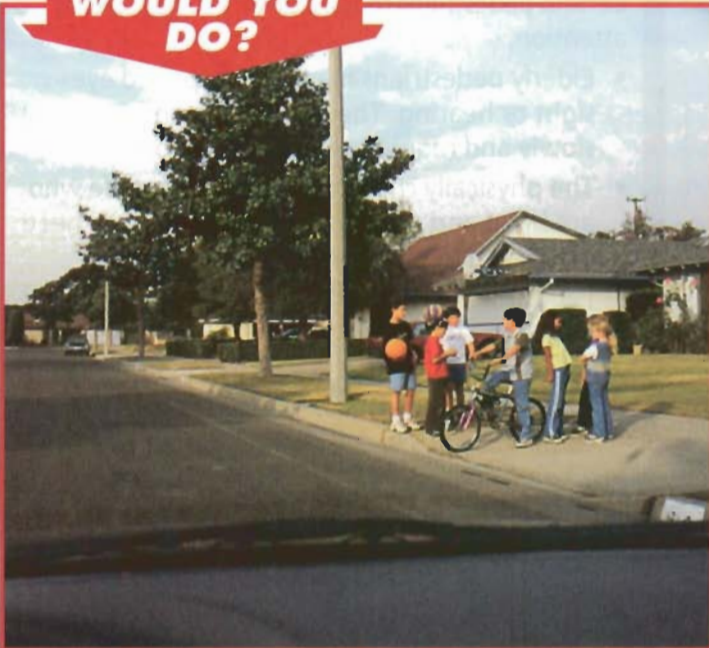
If it appears impossible to avoid striking a large animal, brake firmly and steer to strike it at an angle. Let up on the brake pedal just before hitting the animal. This will cause the front of the car to rise and reduce the chance that the animal will come through the windshield.

If you see signs that say "Cattle Crossing" or "Open Range" or signs that warn of horseback riders, keep a lookout for animals on or near the roadway. Reduce speed as soon as you see an animal.

Always drive past any animal slowly and cautiously; a frightened animal may bolt in any direction.

Finally, keep in mind that in certain situations your best choice is to strike an animal rather than try to evade it. For example, if a small animal darts in front of your vehicle, and swerving or hard braking might cause a collision with a pedestrian or other vehicle, you must choose the less serious of the collisions.

WHAT WOULD YOU DO?



What possible unseen hazards may be present in this situation? How can you manage risk?

Lesson 1 Review

1. What are some pedestrian behaviors that lead to collisions with vehicles?
2. What precautions can drivers take to avoid collisions with children?
3. What are some of the basic safety rules pedestrians should follow?
4. If you can't avoid hitting a large animal, what steps should you take to minimize the damage to your vehicle?

Sharing the Roadway with Motorcycles and Bicycles

In 1997, 813 bicyclists and more than 2,100 motorcyclists were killed in collisions in the United States. As the number of people riding bikes and motorcycles increases, the number of collisions with cars and other large vehicles may increase too.

As a driver, you should recognize the potential risk of collisions posed by cyclists and take precautions to minimize the risk.

OBJECTIVES

1. Identify situations involving cyclists, and explain actions that drivers can take to reduce the risk of collision with them.
2. Describe the responsibilities of motorcyclists on the roadway.

KEY TERM

moped

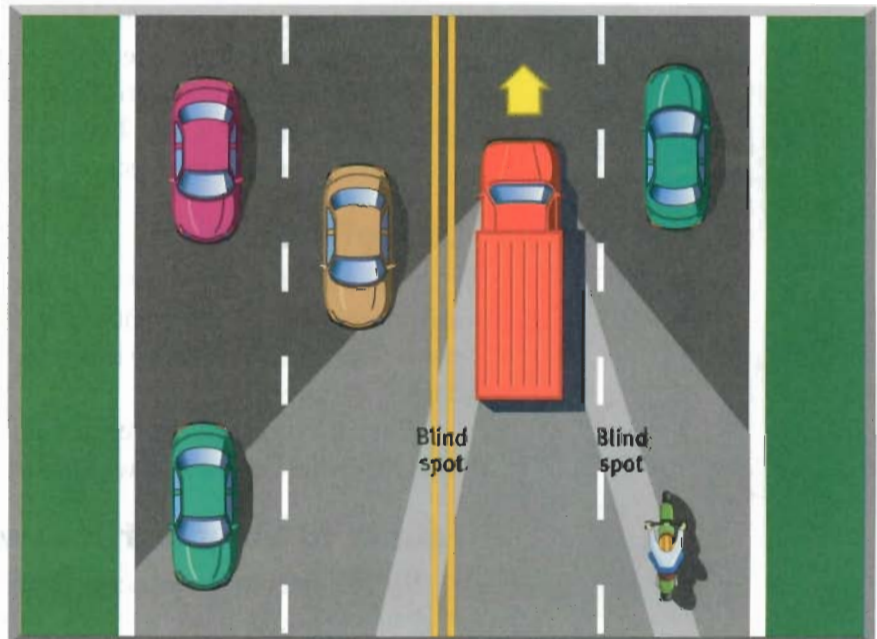
How Can You Recognize and Reduce the Risk of Problems Caused by Cyclists?

Both motorcycles and bicycles are smaller, less stable, and less visible than other vehicles. Two wheels provide less stability than four, making motorcycles and bicycles harder to steer and handle than many people realize. As a driver, you need to be aware of cyclists and of how the roadway problems they face are different from yours.

◆ *Cyclists should be especially careful to stay out of a driver's blind spots.*

Watching Out for Cyclists

Two-wheeled vehicles are much more difficult than other vehicles for drivers to spot, especially when they approach from behind or from the side. A **moped** is a low-powered, two-wheeled vehicle that shares some of the same visibility problems as a bicycle or motorcycle and is most commonly driven on city streets. On highways, a motorcycle does not take up an entire lane and may not be seen. In addition, drivers tend not to look for cyclists.



Motorcycles and bicycles also are easily hidden from drivers' sight by larger vehicles sharing the roadway. The small handlebar mirrors on both motorcycles and bicycles offer their drivers only a limited view to the rear. In addition, some motorcycles have no windscreen or windshield wipers to aid visibility in case of a sudden shower.

Always make cyclists aware of your intentions and position. Drive with your headlights on, and signal well in advance when turning, changing lanes, or stopping. Tap your horn early to warn a cyclist of your approach.

FYI

Motorcycles have a shorter stopping distance than other motor vehicles. This means you need to increase your following distance when there is a motorcycle in front of you.

Dangerous Roadway Conditions

Drivers must be aware of the problems that cyclists face in order to anticipate situations in which a cyclist might veer or skid into the path of a vehicle, or might suddenly slow down, steer widely left or right, or stop suddenly.

Cyclists must make a much more major adjustment in speed or position than a driver in situations such as these:

- encountering a storm drain, a gravel surface, or a pothole
- driving on a rain-slicked road or through a large puddle
- getting caught in an unexpected rain or snow shower
- being blown by a sudden strong gust of wind

To minimize risk, search the roadway ahead for problems that may cause a cyclist to change speed or direction, skid, or make a sudden stop. Anticipate potential risk by allowing cyclists as much maneuvering space as possible. When driving behind a cyclist, increase your following distance. *Never* try to pass a cyclist in a tight space.

If a cyclist is carrying a passenger, be especially careful. A passenger **leaning the wrong way can throw** a motorcycle or bicycle off balance.

Use your mirrors to check for cyclists approaching from the rear. They often **squeeze between vehicles** traveling in **parallel** lanes. Always **check your blind spots, too, before changing lanes**. Be **on** the lookout for **cyclists approaching intersections and coming around curves**.

Lack of Protection

Unlike drivers, who have the protection of their vehicle's shell, cyclists are unprotected. In the event of a mishap—collision, skid, blowout—the risk of serious or fatal injury is high to the cyclist. Keep this in mind when dealing with cyclists.

When driving through residential areas, watch for bicycles and motorcycles entering the roadway from driveways and side streets.

Failure to Obey Traffic Laws

Human error or ignorance accounts for countless collisions involving cyclists. Although **motorcycles are subject to the same laws** that other

motor vehicles are, some cyclists seem to break every rule. They ride between lanes, weave in and out of traffic, ride in drivers' blind spots, and fail to signal their intentions.

Some bicyclists show an equal disregard for safety. They shoot through stop signs and red lights, and cut in front of vehicles. Children on bikes may ride the wrong way on one-way streets or sail through intersections with barely a glance to either side.

Such **careless** riding poses a danger not just to the cyclist but to all roadway users. You should be alert to the possibility that cyclists may not follow traffic laws, and you should always be prepared to take evasive action if necessary.

On the other hand, you should follow all traffic laws so that you do not endanger cyclists and other users of the roadway.

Irresponsible Drivers

Many collisions involving cyclists occur because drivers have difficulty seeing motorcycles and bicycles. However, some cyclists become the victims of careless or inconsiderate drivers. These drivers may tail-gate cyclists, cut them off, or pass too close for safety. Such reckless actions put both driver and cyclist at risk.

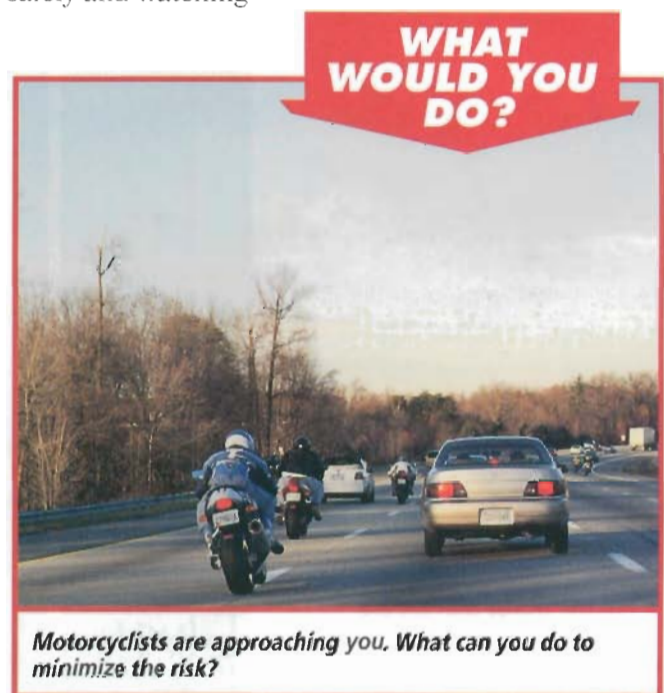
What Special Responsibilities Do Motorcyclists Have?

Motorcyclists have the same rights on the roadways as any other drivers. They also have the responsibility of driving safely and watching out for drivers of other vehicles.

Motorcyclists should not take advantage of the smaller **size** of their vehicles to weave in and out of lanes of traffic at high speeds. This behavior is highly dangerous to the cyclist. **Motorcyclists** should take care to stay out of other drivers' blind spots. Other drivers might **not be as aware as they should be** about looking in **their mirrors for motorcycles** to begin with, so **it is important that a motorcyclist** never be in a **spot that is not visible to nearby** vehicles.

Lesson 2 Review

1. Describe problems that cyclists can cause for a driver. Explain how you would manage risk in each circumstance.
2. What should motorcyclists do to avoid risks on the roadway?



OBJECTIVES

1. Describe ways to share the roadway with vehicles other than cars and cycles.
2. Describe at least three precautions you should take around slow-moving vehicles.

Sharing the Roadway with Other Vehicles

When driving on any street or highway, you'll share the road with vehicles that range in size from 2-wheel, 30-pound bicycles to 18-wheel, 80,000-pound tractor-trailers. You've already explored some problems you might encounter with bicycles and motorcycles. To manage time and space near larger vehicles, you need to understand their characteristics and limitations.

Energy Tips

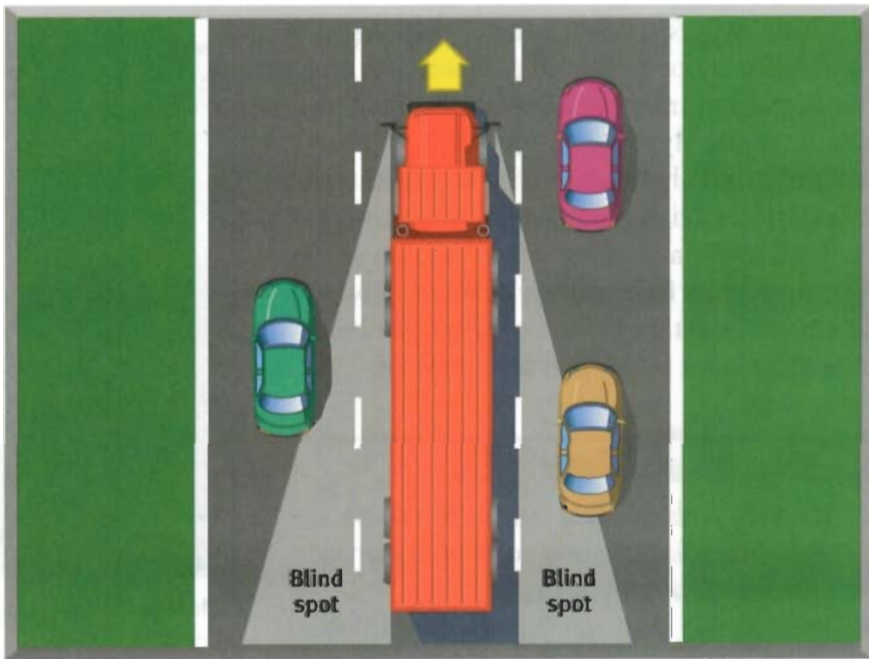
Save fuel by using public transportation, such as buses, or riding a bicycle whenever possible.

How Can You Safely Share the Roadway with Other Vehicles?

Keep in mind that differences in the size, shape, and weight of vehicles affect handling ability as well as the amount of visibility a driver has.

Trucks and Tractor-Trailers

Trucks on the road today can be up to 120 feet long and weigh up to 60 tons. That's about 8 times as long as the average car and 40 to 60 times



◆ *Tractor-trailer mirrors are mounted high, so the driver loses sight of your car if you travel alongside the trailer.*

heavier. **Put yourself** in the truck driver's place. Being aware of problems he or she faces will help you better manage risk.

Visibility Truck drivers sit high above the roadway and have excellent visibility ahead. However, it is hard for them to see to the side and behind the truck. Despite the use of sideview mirrors, some vehicles may be all but invisible to a truck driver.

Trucks create visibility problems for other drivers. With a truck blocking your view, you can't see other traffic or the roadway ahead.

Time Handling a truck is more difficult than handling a car. Weighed down with cargo, a truck accelerates slowly and tends to lose speed when climbing an uphill road. Going downhill, however, a truck's momentum causes it to pick up speed. See Chapter 14 for more on momentum.

When you're passing a truck, allow much more time than you'd need in order to pass a car. Not only is the truck longer, but its bulk creates a wind factor that you'll also have to be aware of as you steer around the vehicle.

Space Trucks, of course, take up much more room on the roadway than do cars. As a result, it's much harder to see around one when you're following it. Increase your following distance when you're behind a truck. Remember that a truck requires a wide turning space and more time and space to stop than cars do. When you approach a truck in an oncoming lane, leave as much space as possible between the truck and your vehicle.

Buses

The same visibility and handling factors that pertain to trucks also apply to buses. Allow buses an equal amount of "elbow room," and follow the same 4-second distance rule when following a bus. Remember that local buses stop frequently to pick up and discharge passengers, often disrupting traffic flow in the process.

TIPS

FOR NEW DRIVERS

How to Safely Share the Roadway with a Truck

Always allow at least a 4-second following distance to make yourself visible to a truck driver and to allow you to see more of the roadway.

When stopping behind a truck stopped at a sign or signal, allow extra distance in case the truck rolls back when starting off.

Allow yourself extra time and space when passing. When a large truck is about to pass you, steer to adjust to the gust of air caused by the truck.

If a truck is bearing down on you as you drive downhill, move into another lane or pull over to let the truck pass.

Try not to drive on the right side of a truck, especially just below the right-front passenger side. This is a blind spot for the truck driver.

Never try to drive by the right side of a truck at an intersection if the truck's right-hand signal is on, even if the truck is in the left lane. Large trucks make very wide right-hand turns.

Never pass a truck on the right side on the roadway.

After passing a truck, do not pull right in front of it after you clear it. Leave plenty of room in case you have to apply your brakes.

FYI

A truck weighing 80,000 pounds traveling at 55 mph takes about 300 feet, or the length of a football field, to brake to a stop. This does not include the distance covered during the time the driver identifies a need to stop. A car typically requires less than half this distance.

You should be especially careful when you approach or pass a stopped bus. Reduce speed and keep alert for pedestrians rushing to catch the bus and discharged passengers hurrying across streets in front of the bus. Always be ready to stop.

Remember, drivers traveling in either direction on a nondivided roadway must stop for a school bus that has flashing red lights to indicate it is picking up or dropping off children.

Small Cars

There are more small cars on the road today than ever before. While these vehicles may cost less to buy and operate than larger vehicles, they have some drawbacks.

Small cars may have less power than larger vehicles. As a result, a small car may take a lot longer to pass other vehicles. Small cars may also lose speed when climbing a steep hill. In many small cars, the driver also sits lower and therefore has reduced sight distance.

When driving a small car, allow yourself extra space and time to pass another vehicle. If a small car is passing you, give the driver ample space and time to maneuver.

Also give small cars extra room when roads are slippery or there are strong winds. Lightweight cars tend to skid more easily than heavier vehicles on slick roadways.

CONNECTIONS

History



In Japan in the year 1635, a law was passed that caused Japanese lords and thousands of their household staff to take to the roadways of that island nation. The law required that the nation's lords, known as *daimyo*, or "great names," build mansions in the capital city of Edo, now known as Tokyo. The lords were to keep their families in Edo and spend every other year at the court of the ruler, or *shogun*.

Because of this law, the *daimyo* had to travel once a year to or from their country estates and Edo. Moreover, the *daimyo* were told how many

of their household staff must travel with them, what equipment to take, and what route to follow. The wealthiest *daimyo* had to take 1,000 or more of their household staff both to and from Edo.

Since there were more than 250 *daimyo* to which the law applied, there would be many great processions criss-crossing Japanese roads in all seasons. These groups, known as *Daimyo Gyoretsu* or "Processions of the Lords," were on the roadways for several weeks. Each night they would stop at one of a huge network of inns established along the national roadways to accommodate the travelers in these processions. In no other country of the world was there such an extensive and elaborate system of overnight accommodations at the time.

Other Kinds of Vehicles

You may encounter other kinds of vehicles on the roadway.

Emergency vehicles When you meet ambulances, police vehicles, and fire trucks with lights flashing or sirens blaring, you should yield the right-of-way. Pull to the right and stop, or otherwise provide a clear path for the emergency vehicle.

Snowmobiles Snowmobiles are allowed on certain roads in some states. They can come onto the roadway in unexpected places. They are often hard to see and can be difficult for their drivers to handle and to stop. Allow extra time and space to adjust to any maneuver that a snowmobile makes.

Sport utility vehicles Sport utility vehicles (SUVs) are taller than the average passenger car. This gives the driver a better view of the traffic ahead. It also means that a driver following an SUV will have an obstructed view of the traffic ahead. Keeping an extra distance behind an SUV may help you to see around the vehicle. Also remember that sport utility vehicles need extra stopping distance.

Ice-cream trucks Approach ice-cream trucks cautiously. Watch for children darting into the street and emerging from between parked vehicles. In some states, drivers must stop for an ice-cream truck equipped with flashing red lights and must yield the right-of-way to pedestrians going to and from the truck. Check your state driver's manual.

Maintenance vehicles Roadwork involves vehicles of many sizes and shapes with the potential to disrupt traffic. Drivers need to be alert to such vehicles and to adjust speed and position to accommodate sudden changes in traffic flow.

How Do You Deal with Slow-Moving Vehicles?

Slow-moving vehicles, such as farm tractors, horse-drawn wagons, and various special-purpose vehicles, move at a much slower speed than other traffic.

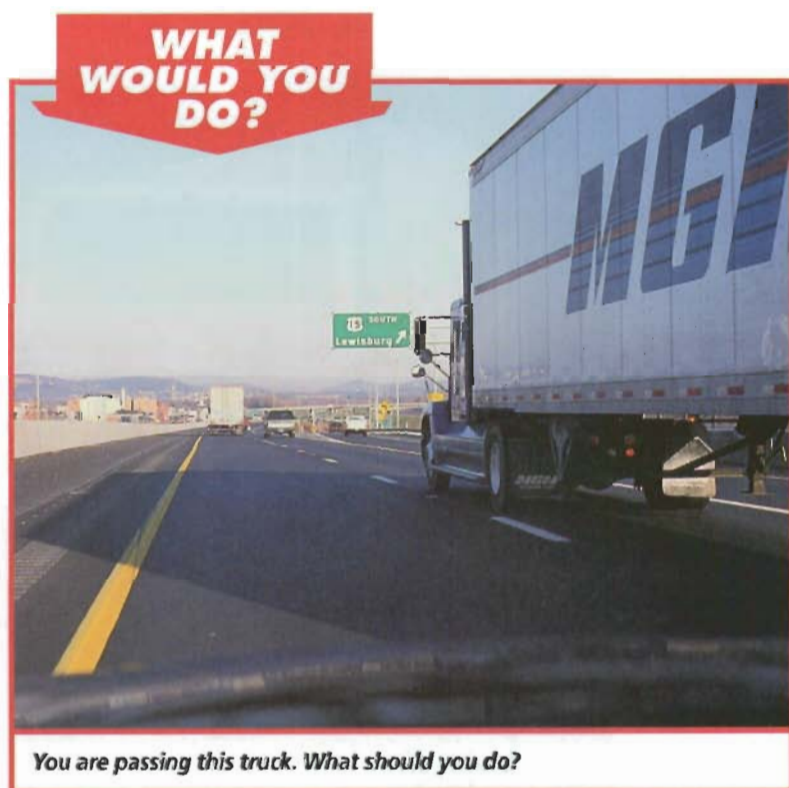
Try to spot a slow-moving vehicle as early as possible, because your vehicle will approach it

◆ You may encounter slow-moving maintenance vehicles in city traffic.





◆ **Allow a wide vehicle more room to maneuver, especially on turns.**



more rapidly than a vehicle traveling at a normal rate of speed. Slow-moving vehicles often, but not always, display special signs identifying them as slow-moving. If a vehicle is especially wide, it may carry a “wide load” sign on the rear. Once you identify such a vehicle, reduce speed immediately and follow at a safe distance.

Before passing, consider the driver’s likely actions. For example, the driver of a construction vehicle may drive on the roadway for only a short distance before turning off. A road maintenance or utility truck may stop or pull over to the side.

If you decide to pass, do so safely and only where it is legal to pass. Be especially careful on narrow, single-lane country roads, where you’re more likely to encounter a slow-moving vehicle. Visibility and space are limited on such roads, and if the vehicle you’re following is large, you’ll have added difficulty seeing past it.

If you see a slow-moving vehicle traveling in the opposite direction, be alert for oncoming vehicles moving into your path as they pass the vehicle.

Lesson 3 Review

1. Name three types of motor vehicles with which you might share the roadway. Explain how you can reduce risk when interacting with these vehicles.
2. When you are sharing the roadway with a slow-moving vehicle, what are three precautions you should take?

Safe Driving Procedures at Railroad Crossings

OBJECTIVES

1. Explain how to drive safely through a railroad crossing.
2. Describe what to do if your vehicle stalls on railroad tracks.

Despite warning signs, crossing gates, and signals, many collisions occur at railroad crossings each year. Among the causes of these crashes are driver impatience, driver inattention, and poor judgment.

How Can You Drive Through a Railroad Crossing Safely?

Too many drivers forget, or ignore, safe-driving procedures at railroad crossings, often with fatal consequences. This lesson describes those procedures.

Determine When It Is Safe to Cross

Slow down as you approach a railroad crossing. Look for warning lights or signals or lowered crossing gates.

Stop no closer than 15 feet from a railroad crossing if a train is approaching. *Never* attempt to cross a track if warning lights are flashing.

Even if warning lights are not flashing, look both ways and listen to make sure no train is coming before you cross a track. Never rely solely on mechanical warning equipment—it could be broken.

If there are no lights or crossing gates present at a railroad crossing, proceed with extra caution. If there is any question about safety, stop, look, and listen for approaching trains before moving ahead.

After a train has passed, check in both directions to see that no other trains are coming, especially before you start across multiple sets of tracks.

Always wait for the vehicle ahead of you to clear the tracks before you start across. Never stop on the railroad tracks.

◆ **Be patient and very cautious at railroad crossings. Never think you can beat the train to the crossing.**



ADVICE FROM THE EXPERTS



Bruce J. Oliver

Manager of Driver Training, AAA Mid-Atlantic

Remain alert to share the roadway safely:

- *Bicyclists are expected to obey all traffic laws and regulations. Bicyclists have the same rights, privileges, and responsibilities as drivers.*
- *Think ahead. Drivers can often anticipate dangers involving pedestrians.*
- *Even if you obey all traffic laws, unexpected events can and do occur. Managing time and space effectively will help minimize risk should an emergency occur.*
- *Maintain respect for all roadway users to aid in the safe, smooth flow of traffic.*

Stay Alert

Drivers who travel the same route day after day tend to pay less attention to their surroundings. Such inattention can have tragic consequences at a railroad crossing.

Don't take familiar crossings for granted. Never assume that the track is clear: be alert, look, and listen for trains.

Do Not Panic If Your Vehicle Stalls

Never stop your vehicle on railroad tracks for any reason whatsoever. In the rare event that your vehicle stalls on the tracks, don't panic.

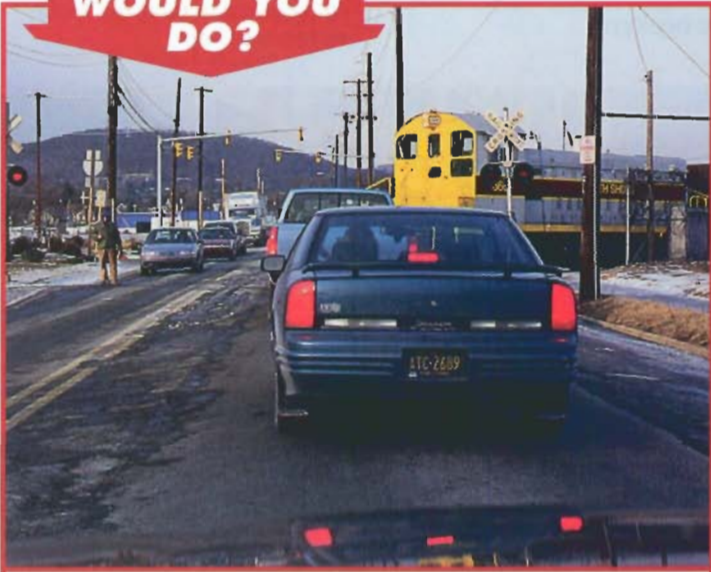
Immediately check in both directions for approaching trains. If a train is coming, leave your vehicle at once, walk in the direction the train is coming from, but move away from the tracks. If no train is approaching and you have a clear view of the tracks in both directions, try to restart your engine. Continue to check for trains.

If you can't start your vehicle and you're sure no trains are coming, try to push your vehicle off—and well away from—the tracks.

Lesson 4 Review

1. What must you do to negotiate a railroad crossing safely?
2. What would you do if your vehicle stalled on railroad tracks?

**WHAT
WOULD YOU
DO?**



The train has just about passed. Describe your procedure as you get ready to resume movement.

Figuring Travel Time

Travel involves rate of speed, distance, and time. To find how long it will take you to get somewhere when you know your distance and speed, divide the distance by the speed. (To get an exact answer, you may have to change miles per hour to miles per minute by dividing mph by 60.)

$$T = D \div S, \text{ where } T = \text{time,}$$

$$D = \text{distance, and } S = \text{speed.}$$

For example, suppose you will drive 270 miles at an average speed of 45 mph. How long will the trip take?

$$T = 270 \div 45$$

$$T = 6$$

The trip will take 6 hours.

Figure the time for each distance and speed below.

TIME	DISTANCE	SPEED
(a)	20 miles	30 mph
(b)	40 miles	35 mph
(c)	115 miles	50 mph

To estimate distance when you know speed and time, multiply the speed and the time.

$$D = S \times T$$

How far can you travel in 5 hours at an average speed of 35 mph?

$$D = 35 \times 5$$

$$D = 175$$

You can travel about 175 miles.

Figure the distance for each speed and time below. Round your answer to the nearest whole mile.



DISTANCE	SPEED	TIME
(d)	25 mph	30 minutes
(e)	45 mph	2¼ hours
(f)	30 mph	1 hour 20 minutes

Now look back at each problem. If you wanted an estimate instead of an exact answer, what shortcuts could you take?

Try It Yourself

- Traveling at local speeds, about how many miles away is someplace 20 minutes from your home?
- Use a map to plan a trip from one city to another. Estimate the amount of time it will take to travel the distance between the two cities.
- Use a map to figure out which cities or towns are about 3 hours away from your home.

CHAPTER 13 REVIEW

KEY POINTS

Lesson One

1. Pedestrian problems may be caused by people who cross a roadway without regard for rules or signals, children who run into or play in the street, people who need extra time to cross, and joggers.
2. To prevent collisions with pedestrians, use the SIPDE process to develop effective visual search habits.
3. Pedestrians should obey all rules, signals, and signs; walk facing traffic if walking on the road; wear reflective clothing when jogging; hold children by the hand; cross streets only when and where it is safe and legal to do so.
4. To avoid collisions with animals, be careful when driving through wooded areas, especially when visibility is reduced.

Lesson Two

1. Motorcycles and bicycles have less stability and protection than other vehicles. To reduce the risk of collision with cyclists, anticipate problems they may have, and adjust your speed or position. Always make cyclists aware of your position and intentions.
2. Cyclists should not weave in and out of traffic and should make themselves visible to drivers.

Lesson Three

1. Trucks and tractor-trailers: when passing allow extra time; when you approach a truck or tractor-trailer in an oncoming lane, leave plenty of space between it and your vehicle. Buses: react as you would to a truck, but remember that approaching and passing requires special care because buses may be picking up or discharging passengers. Small cars: allow extra room on slippery roads or windy days.
2. Try to spot a slow-moving vehicle early. Reduce your speed, and follow at a safe distance. Pass only where it is legal and safe to do so.

Lesson Four

1. Slow down as you approach a railroad crossing. Look for warning lights or signals or lowered gates. Before you cross, stop, look, and listen for trains. Never assume the track is clear.
2. If your vehicle stalls on a railroad track and a train is approaching, leave the vehicle and walk in the direction the train is coming from, but away from the track. If no train is coming, try to restart the engine or push the vehicle off the track.

PROJECTS

1. Observe the interaction between pedestrians and traffic at a busy intersection for about 15 minutes. Make note of unsafe actions taken by both pedestrians and drivers. Discuss your observations with the class.
2. Visit a bicycle shop or sporting goods store. What products does the store sell to help make cyclists, joggers, and others more visible in dim light?

interNET
CONNECTION



To learn more about safety on the road, visit Glencoe's driver education Web site for the most current Traffic Safety Facts from the U.S. Department of Transportation.
drivered.glencoe.com

CHAPTER 13 REVIEW

CHAPTER TEST

Write the letter of the answer that best completes each sentence.

- When driving behind a tractor-trailer,
 - allow at least a 4-second following distance.
 - attempt to pass.
 - tap your horn lightly.
- Collisions with pedestrians occur most often
 - at intersections.
 - on highways.
 - on weekends.
- Drivers who travel the same route every day
 - have fewer collisions than other drivers.
 - pay less attention to their surroundings.
 - fall asleep at the wheel more often.
- As the use of cycles increases,
 - collisions with other vehicles will decrease.
 - air pollution will decrease.
 - the number of collisions with other vehicles might also increase.
- Drivers use ground viewing to
 - search the road for animals.
 - search beneath parked vehicles for signs of movement.
 - avoid large puddles.
- Because truck drivers sit high above the surface of the roadway, they
 - don't have any blind spots.
 - have great visibility of the road ahead.
 - are able to see above fog.
- If it appears impossible to avoid striking a large animal, you should
 - accelerate and move forward.
 - turn off your vehicle's engine.
 - steer to strike it at an angle.
- When driving behind a cyclist, you should
 - increase your following distance.
 - pass at the first opportunity.
 - turn on your high beams.
- Most small cars have
 - more power than larger cars.
 - the ability to pass easily.
 - less power than larger cars.
- If you approach a railroad crossing when a train is coming, you should
 - stop at least 15 feet from the crossing.
 - stop directly in front of the crossing signal.
 - try to cross the tracks if the gate is open.

Write the word or phrase that best completes each sentence.

traffic flow parallel hazard
stability stalls jaywalking

- Crossing a street without regard for traffic rules or signals is called _____.
- Motorcycles are harder to steer than many people realize because two wheels provide less _____ than four.
- If your vehicle _____ on railroad tracks while a train is coming, you should leave the vehicle at once.
- Cyclists often squeeze between vehicles traveling in _____ lanes.
- Local buses stop frequently to pick up and discharge passengers, often disrupting _____ in the process.

DRIVER'S LOG

In this chapter, you have learned about the responsibilities and risks of sharing the roadway with motorists, pedestrians, cyclists, and animals. Write what you think are the five most important responsibilities a driver has when sharing the roadway.