



Unit 4

Being a Responsible Driver

Chapter 14

Effects of Driver Condition

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Alcohol, Other Drugs, and Driving

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Buying and Owning a Vehicle

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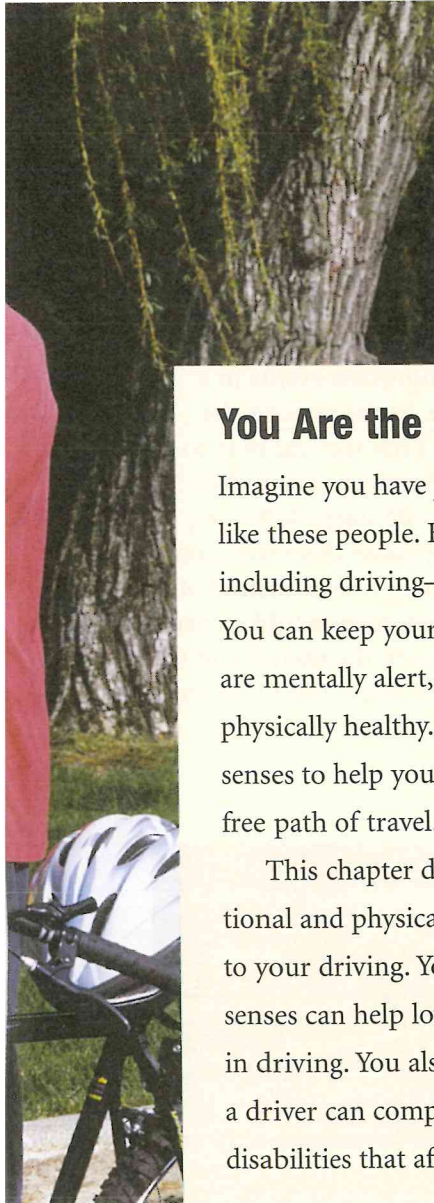
Chapter 18

Planning Your Travel



Chapter 14

Effects of Driver Condition



You Are the Driver!

Imagine you have just been bicycle riding like these people. Every activity you do—including driving—involves some risk. You can keep your driving risks low if you are mentally alert, emotionally fit, and physically healthy. You must rely on your senses to help you stay on a safe, conflict-free path of travel.

This chapter discusses both your emotional and physical abilities as they relate to your driving. You will learn how your senses can help lower the risks involved in driving. You also will discover how a driver can compensate for physical disabilities that affect driving.

14.1

Emotions and Driving

14.2

Physical Senses and Driving

14.3

Physical Disabilities



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Objectives

1. Tell how anger can affect your ability to drive.
2. Explain how passengers can help a driver.
3. Tell how you can manage your emotions while driving.
4. Describe the influence emotions have on your willingness to accept risk.

The word **emotion** is used to name a strong feeling. Anger, fear, and joy are examples of emotions. Emotions add a special flavor to life.

How Emotions Affect Driving

Emotions influence the way you think and act. When emotions affect your thoughts and actions, they can change the way you normally assess risk and make driving decisions. They can lead you to accept more or less risk than normal for the gain you receive. Emotions can be infectious; they can affect others in your vehicle and in vehicles around you.

A driver can minimize the effects of emotions by using courteous driving strategies. Using courtesy to influence the effects of emotions on others empowers you. In effect it can help keep you in control of yourself and others.

Mental Effects of Emotions

Strong emotions can interfere with your ability to think, reason, and make wise decisions. They can increase your chances of making a mistake. Emotions can affect the way you make judgments in a driving situation.

In some situations, a strong emotion can cause you to focus your attention on one event. You might miss other important events in a driving scene. In the picture, the driver in front has just cut over to the right lane and started to slow. This action could startle following drivers. It may cause them to become upset or angry. However, instead of becoming upset, they should increase the space between themselves and the vehicle ahead. Drivers need to reduce their own risk, rather than seek revenge or get even.

You Are the Driver!

How would you feel if this driver cut into your lane? What might the driver behind you think of your response?



Physical Effects of Emotions

Strong emotions also can cause changes in your bodily functions. Your body prepares itself for the stressful event. Your heartbeat increases, your breathing quickens, your digestion slows, and your muscles tighten.

Some emotional stress is needed to sustain life. However, continued emotional stress can exhaust you and contribute to adverse effects on the body such as heart disease and digestive disorders. The more tasks to be handled, the more complex and stressful the situation. Rush hour traffic can cause stress and fatigue in all drivers. Bumper-to-bumper driving situations in the city can also cause stress.

Anger While Driving

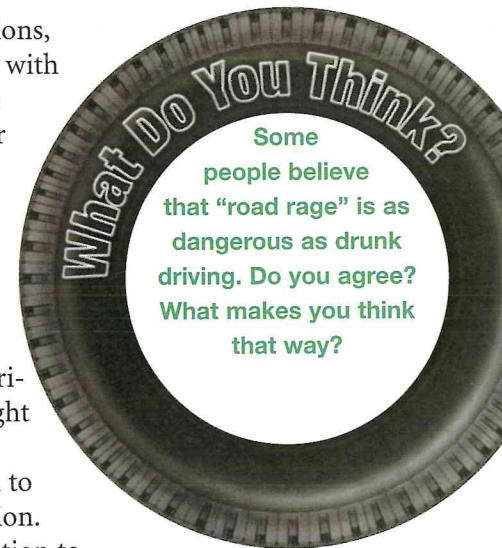
You usually rely upon a set of assumptions or expectations when driving. You assume that others will drive and act in a safe, responsible manner. You might be tempted to react angrily when you must change your expectations.

In normal driving situations, other drivers might interfere with your intended speed or path of travel. They might slow or change lanes improperly. They might not yield, may fail to signal, or may not move quickly enough when a traffic light changes. Sometimes you might think that other drivers are trying to irritate you. As a result, you might become angry.

Anger occurs more often to drivers than any other emotion. It can range from mild irritation to furious rage and can result in aggressive actions or even violent acts of “road rage.”

In this picture, the driver is angry at the people who are talking and blocking his way. The driver is angry because he might be late for an appointment. If he cannot maintain emotional control, he might remain angry and react aggressively.

Anger can impair all of your driving skills. You might take risks



The driver might remain angry long after the people have cleared his path.



SAFE DRIVING

Avoid situations that could evoke anger. Do not make emotional, last-second decisions when driving in heavy traffic.

you would not take if you were calm. You also might not see everything you should see and miss an important clue. You might force other drivers to stop or swerve abruptly. These last-second actions can cause conflicts and added stress not only for you, but for other drivers as well. Good drivers never surprise others.

What might you do when you become angry while driving—or confront other drivers who are? Think positively. Leave punishment to the police. Your acts of punishment may just aggravate the other drivers even more. Model good behavior. Consider that other drivers may have good reasons for their actions. Can you recall times when you have made similar decisions?

Other Emotions and Driving

Sorrow, depression, and anxiety are among other emotions that can adversely affect driving. These emotions can also slow body processes and reduce mental alertness.

Anxiety differs from anger. You might be anxious when driving in an unfamiliar, difficult situation. You might have trouble identifying hazards when you are confused. You might even feel panic-stricken. As a responsible driver, work to recognize difficult situations, and try your best to cope. It may mean delaying driving, but your risks will be reduced.

Excitement and happiness also can prevent you from fully concentrating on your driving task. A happy, excited driver can be just as impaired as an angry driver. After an intense event, such as a sports event, be sure that strong emotions do not impair your driving ability.

Emotions and the IPDE Process

The successful use of the IPDE Process requires total concentration on the driving task. You need time to use the IPDE Process. In a tight, high-stress situation, you need even more time to use the IPDE Process to keep from making wrong or late decisions.



You would need to have your emotions under control if you were driving into this situation.



Spirits might be high after winning a game, but drivers must remain in control.

Your emotional condition can drastically affect your driving ability.

Think how emotions could affect your driving if you were beside the truck pictured on the opposite page. The car ahead has been slowing and forcing you to slow. The truck driver has just decided to pass the car. You are not sure what the driver ahead is going to do. Another truck is behind the passing truck. As a result, the driver ahead and the truck drivers could cause you to make quick, irresponsible errors.

Passengers and Emotions

Peer pressure can be a very strong force, depending upon the situation. In a baseball game, team spirit can help win the game. In a vehicle, your passengers can strongly influence the way you drive.

In most group situations, one or more people need to assume responsibility and lead the group. When you are driving, you must be the leader and take control. You are

responsible for the safety of your passengers.

In this picture, a championship soccer match has just ended. Everyone is going to celebrate. Emotions will be running high. The driver will be under special pressures to concentrate on the driving task. However, to make sure that nothing goes wrong, the driver must be the leader and maintain control of the situation.

Passengers can help the driver maintain control while driving. Here are actions you, as a passenger, can take to assist a driver:

- Avoid saying or doing anything that might distract or upset the driver. Refrain from heated discussions. Talk about positive events.
- Discourage the driver from taking reckless actions. Be prepared to intervene if the driver endangers others by reckless driving. Encourage the driver to let someone else drive, or refuse to ride in the same vehicle. Do what you must to protect yourself and others.

- Do not hesitate to compliment the driver for doing a good job of driving in a difficult situation. You might need the same support when you are the driver.

Effects on Risk Taking

Your emotions have a big influence on the amount of risk you are willing to take. You probably will be more likely to take risks if you are angry than if you are happy. When a driver cuts you off after passing, you might want to get even by taking chances that you would not normally take.

Mature, responsible drivers do not let their emotions make them take unnecessary risks. Taking a chance while driving can be deadly. You must be mature enough to adjust your behavior so that you do not drive into or create high-risk situations. You also must be mature enough to refuse to take part when other people suggest activities that could endanger you, your passengers, or other drivers.

Your emotions might cause you to take chances at different times on the same roadway. For example, if you were driving an injured friend to the hospital, your concern might cause

you to drive fast, increasing the risks. An hour later, you probably would not drive home in the same manner. You then would drive more cautiously and courteously.

On the other hand, sometimes you might be so uninterested in your trip that you don't give your complete attention to the driving task. Driving the same route over and over may cause you to pay less attention to the driving task.

Controlling Emotions

During some performances, you are asked to hold your applause until a certain point. You must manage your emotions until the proper time. In driving, you must develop this same type of emotional discipline. You must strive to keep emotions from affecting your driving ability.

Coping with Emotions High-stress driving situations can cause emotions to surface. These techniques can help you manage your emotions while driving:

- Use the IPDE Process to drive in an organized manner. Learn and use correct driving procedures until they become habits. You then will be more likely to execute the proper action, even when under emotional stress.
- Anticipate emotion-producing situations, and adjust your expectations. Say to yourself, "I know there will be delays during rush hour, so I will allow more time to get home. I will not let the actions of others bother me."



Even if you drive on the same street every day, always be aware of potential risks.



AGGRESSIVE DRIVING Citizens Against Speeding and Aggressive Driving (CASAD) is a fairly new grassroots organization dedicated to making safer roads. CASAD members feel aggressive driving has become an epidemic. They believe it is socially unacceptable to speed and drive aggressively on any road under any circumstance.

- If you encounter an aggressive driver, do not challenge the driver. Avoid eye contact, ignore gestures, and remain calm. Adopt a “yield” attitude.
- Try to adjust your route to avoid irritating traffic situations.
- If you are tired, make a special effort to manage your emotions. A tired person can become upset more easily.
- Analyze your mistakes. Learn from them so that you are less likely to repeat the same mistakes.
- Keep courtesy as one of your personal rules of the road.

Goal of Emotional Control

Emotions are complicated and powerful forces. Learning about emotions and how to manage them is something most individuals work at all their lives. Maintaining an attitude of “I will always work to manage my emotions when driving” is a big step toward actually mastering your emotions. If you can manage your emotions and maintain your driving ability, those skills will help keep the risks of driving low as well as your stress level.



You can earn the respect of others if your emotions do not interfere with your driving ability.

Review It

1. How can anger affect your ability to drive?
2. How can you help a driver when you are a passenger?
3. What can you do to manage your emotions while driving?
4. How can your emotions affect the risks of driving?

Objectives

1. Define the parts of your field of vision.
2. Describe what you can do to compensate for poor depth perception.
3. Explain how your senses help you drive.

IPDE

You have 20/20 vision in each eye if you can read these letters with each eye from 20 feet away.

Your senses play a vital role in using the IPDE Process. You use your abilities to see, hear, smell, and detect motion to know what is occurring in and around your vehicle.

Driving, like other activities such as sports and mowing the lawn, exposes you to risks. As you drive, your senses help you stay alert and be aware of changing situations. If you know your physical abilities, you have a better chance of maintaining control over your vehicle and minimizing your driving risks.

Seeing

More than 90 percent of the information you gather while driving is received through your eyes. You must be able to clearly and quickly identify closing zones in your intended path of travel.

Your brain directs your eyes to focus on objects in and around your path of travel. Information is sent to your brain and combined with stored information. As a result, you can identify hazards, predict conflicts, decide to maintain or adjust your speed and position, and execute your decisions.

Visual Acuity

When driving you need the ability to see things clearly both near and far away. For example, you may need to read the gauges on your instrument panel in one instant, then identify

oncoming traffic in the next. The ability to see things clearly is called **visual acuity**.

A person with normal visual acuity—called 20/20 vision—can read 11/32-inch letters on an eye chart from 20 feet away. If you have 20/20 vision, you should be able to read the term IPDE in the block on this page from 20 feet away.

You must pass a visual acuity test in order to obtain a learner's permit, and possibly again to get a driver's license. Most states require a minimum corrected visual acuity of 20/40 to drive. A person with 20/40 vision must be twice as close to an object to see it as clearly as a person with 20/20 vision must be. With 20/200, the person would have to be 10 times closer. If you must wear glasses or contact lenses to pass the vision test, then you must wear them whenever you drive.

Color Vision

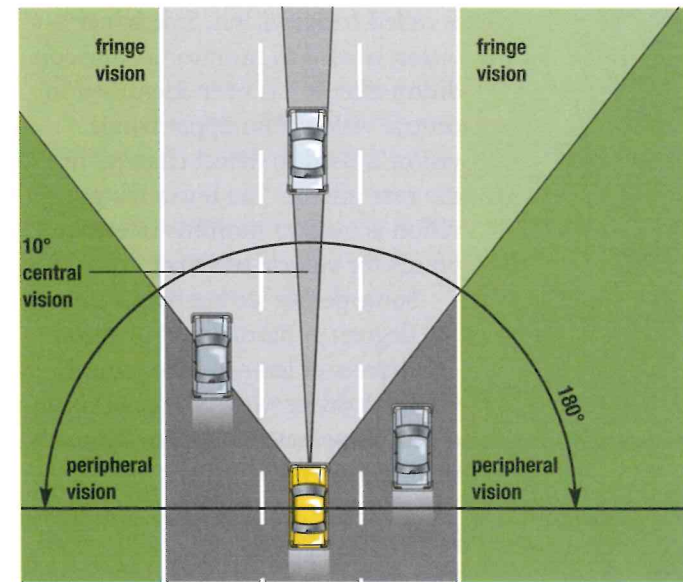
Color vision is the ability to distinguish one color from another. Not being able to distinguish colors is called **color blindness**. Being able to see the colors red, green, and yellow is particularly important since these colors give the messages stop, go, and slow or caution. The most common type of color blindness is the difficulty to distinguish red and green.

A color-blind driver can compensate by

- remembering the order of the lights in a traffic signal. If the lights are vertical, the red light is at the top. If horizontal, the red light is on the left.
- knowing the meanings of traffic signs by their shapes
- reading all signs that appear with traffic signals
- checking all zones and 90 degrees to left and right before proceeding at traffic signals
- taking cues from other drivers

Field of Vision

Your field of vision is all the area that you can see around you while looking straight ahead. From this position, most people can see about 90 degrees to each side, or about a half circle. However, you can only see clearly in your area of central vision as shown in the pictures. This straight-ahead part of your field of vision is a small, 10-degree, cone-shaped area. As you drive, direct your central vision to your target



You see most clearly in the area of central vision, but the fringe vision is also important.

area and 12–15 seconds ahead to identify zone changes.

Surrounding your central vision is peripheral vision. The farther from the central vision, the less clear the view. The part of your peripheral vision closest to your central vision



Use your central vision to check your target area and front zones. Use your fringe vision to check reference points and detect changes in your rearview mirror.

is called fringe vision. Side fringe vision is used to monitor a zone condition after it has been identified in central vision. The upper fringe vision is used to detect changes in the rear mirror. The lower fringe vision is used to monitor reference points for vehicle position.

Some people see less than a total of 180 degrees. A narrow field of vision—140 degrees or less—is called **tunnel vision**. A driver who has tunnel vision must compensate with more frequent head and eye movements.

Depth Perception

The ability to judge distance between yourself and other objects is **depth perception**. When driving you must judge the distance between your vehicle and other vehicles and other objects. Accurate judgment is more difficult when the other vehicle is moving.

A driver can compensate for poor depth perception by

- using a following distance greater than three seconds

- allowing for additional clear distance ahead before passing
- allowing greater distances at night than at daytime. (Darkness hides many guides you use in the daytime.)

Night Vision

The ability to see at night varies from person to person. Some people who see clearly in the daytime have poor night vision. Not being able to see well at night is called **night blindness**.

All people see less at night than in daylight. Colors are harder to identify. Details of objects do not appear as sharp as in daylight.

Your night vision is limited to the area lit by headlights, streetlights, and other lights. In rural areas, you might be in total darkness except for the area lit by your headlights.

At night you might not be able to see anything to the sides. You might be less able to read signs and roadway markings. Compare the two pictures that show the same situation.



You can see nearby objects and distant ones clearly in daylight.



Your ability to see objects and judge distance is limited at night.



You Are the Driver!
Some vehicles reflect sunlight into your eyes. How can you compensate?

The only difference is that one picture was taken during the day and the other one was taken at night. Notice that you cannot see as much at night. Your ability to judge distances accurately also decreases.

Glare

Glare occurs in the daytime when bright sunlight is reflected off shiny surfaces. Sunroofs and convertibles let in additional sunlight that can produce glare. At night, glare occurs when bright lights reflect off shiny surfaces. The term **glare resistance** describes the ability to continue seeing when looking at bright lights. Glare resistance varies from person to person. Some people are more sensitive to light than others.

Sudden glare can blind a person temporarily, especially at night. Headlights turn toward you at intersections. Bright lights appear from over hills and around curves. A vehicle using high-beam headlights approaches from behind. Your pupils open wide at night to let in all available light. When your eyes are suddenly exposed to bright lights, your

pupils contract. You might be temporarily blinded before your pupils can adjust to the bright lights.

The term **glare recovery time** describes the time your eyes need to regain clear vision after being affected by glare. Your pupils can take 5–10 seconds to readjust. At 40 mph, you can travel more than the length of a football field while partially blinded.

Take these steps to avoid or recover from glare:

- Avoid looking directly at bright lights. Use the right edge of the roadway as a guide.
- Anticipate glare situations and glance away or squint.
- Use side fringe vision rather than central vision to check your lane position and the location of oncoming vehicles.
- If you are impaired by glare, slow until your vision clears.
- Wear sunglasses and use your vehicle's sun visor in bright sunlight.
- Adjust your rearview mirror for night use.

Vehicle Speed and Vision

As your vehicle's speed increases, your need for accurate vision also increases. Yet, at higher speeds, you have less time to see clearly. Your field of vision also is narrowed. At 55 mph, your clear side-vision area is less than half as wide as at 20 mph.

Objects off to your sides become blurred and distorted as your speed increases. This blur, or **speed smear**, as shown in the picture, has an effect much like tunnel vision. Your eyes tend to focus far ahead to where the roadway appears to come to a point. You see less and less of what is happening on the sides. Increase the frequency of your side glances when driving at highway speeds.

Other Senses and Driving

Sometimes you need to depend on other senses to identify threats to your path of travel. In complex driving situations, you may have to use more than one sense at a time.

Hearing

Your sense of hearing can alert you to the sounds of vehicle horns, train whistles, emergency-vehicle sirens, and engines and brakes of trucks and buses. You can also get early warning of mechanical problems by listening for unusual noises from your vehicle.

Drivers who have sounds blocked from them can be dangerous to themselves and to others. Driving with closed windows and with stereo or headsets on may make a driver unaware of critical traffic sounds. Using a cellular phone while driving creates a similar problem.

Drivers who are deaf know that they must compensate for what they cannot hear. They use their eyes more than drivers who have normal hearing.

Smell

Your sense of smell can identify an overheated engine or overheated brakes. Smelling exhaust fumes inside your vehicle can give you an



When you drive at higher speeds, your side vision is less clear.

early warning to the presence of deadly gases.

Sense of Motion

Certain sensations can give you clues to the movement of your vehicle. Your sense of balance tells you that you are veering right or left, changing speed, or going around a curve. A sudden vibration of the vehicle or jerk of the steering wheel might warn you of a mechanical problem, a flat tire, or a change in the roadway surface.

Risk Management

You increase or decrease your risk of becoming involved in a collision by changing the level of control you have over your vehicle. Impairment or inadequate use of senses of vision, hearing, smell, and motion will affect your ability to manage risks. Also, anything that distracts you from using your senses and concentrating on the driving task will increase your risk of a collision.

Distractions

A driver needs to focus on the driving task at all times. The driving scene can change quickly, and you need to be alert to changes so that you make decisions and act quickly.

An audio system in your vehicle can cause distractions, although it can be helpful if used safely. You need to keep the volume at a level that allows you to hear important traffic sounds such as sirens and horns. Also, do not wear headphones while driving. Headphones will block traffic sounds, and it is illegal in many states to wear them while driving. Avoid changing

radio stations, tapes, and CDs while driving. You increase your risk of a collision any time you take your eyes off the road and a hand off the steering wheel.

Cellular phones can be helpful in a vehicle in emergencies, but they are dangerous to use while driving. Research studies have found that drivers talking on a cell phone were four times more likely to be involved in a collision. You should turn off your cell phone while driving. If you need to use the phone, pull off the road and stop the car.

Other distractions can come from people or pets in the vehicle. The driver is responsible for keeping passengers under control. Pets need to be placed in carriers or secured with special harnesses. The more distractions you can eliminate, the better you will be able to manage risks to avoid collisions while driving.

Review It

1. What is your field of vision? What part of your field of vision provides you with your clearest vision?
2. What can you do to compensate for poor depth perception?
3. How do your senses of seeing, hearing, smelling, and motion help you assess driving situations?

Objectives

1. Tell what you can do to combat fatigue.
2. Explain what to do to avoid carbon monoxide exposure and how to deal with its effects.
3. Describe what drivers who have permanent disabilities can do to compensate.

Experienced drivers have learned to respond to temporary and permanent disabilities. Generally, driving is possible for people who have moderate to severe disabilities. However, a disability needs to be recognized before it can be overcome, whether temporary or permanent.

Temporary Disabilities

Sometimes you must drive even though you are not at your physical best. While you can compensate for some temporary disabilities, with others you should not drive until they no longer exist.

Fatigue

Mental or physical work, emotional stress, or loss of sleep can cause fatigue. Fatigue lessens your fitness to perform tasks, including driving. It dulls your senses and slows both

mental and physical processes. If you are fatigued, you will need more time to use the IPDE Process.

Fatigue can also cause drowsiness. Drowsy driving is estimated to cause at least 100,000 collisions a year.

There are several danger signs of drowsiness:

- trouble keeping your head up
- drifting between lane positions
- wandering, disconnected thoughts
- inability to stop yawning
- eyes closing or going out of focus
- inability to concentrate on driving task

When are you about to fall asleep? That is hard to predict. Most people biologically prefer to sleep between 12:00 A.M. and 6:00 A.M., and again around 2:00 P.M. You may experience drowsiness during these times. Be cautious.



Drowsiness can interfere with a person's driving abilities.

Rest is the only safe remedy for fatigue. However, people often need to drive even when they are tired. If you are tired after work or school, take a break for a few minutes before you drive. You might also choose a quieter, less congested route home.

Take these actions to deal with fatigue on long drives:

- Rest before you start.
- Change drivers often.
- Stop every two hours. Walk, stretch, get a beverage or snack, or take a nap on long trips.
- Wear sunglasses in bright sunlight and to shield against snow glare.
- Use your orderly visual search pattern to keep your eyes moving.
- Be active—listen to the radio, sing, or talk with your passengers.
- Stop in a safe, well-lighted place if you feel drowsy. Lock the vehicle and take a nap.

If you feel tired often, check with your doctor. You may have a chronic illness or sleep disorder.

Temporary Illness or Injury

Any illness, even a cold, can impair driving to some extent. A temporary physical injury, such as a broken bone or a sprained ankle, also can

DRIVE RIGHT

DID YOU KNOW?

DROWSY DRIVERS According to a national poll, half of the people surveyed said they had driven while feeling drowsy. One in five admitted they had fallen asleep behind the wheel.

impair your driving. These and other temporary conditions can cause discomfort and pain, limit physical movement, lessen endurance and strength, or dull your senses.

Effects of Medicines Many medicines have side effects that can interfere with your driving ability and risks. For example, medicine that reduces headache pain or relieves hay fever, might also cause drowsiness, dizziness, or reduced alertness.

If you take medicine, consider these points before you drive:

- Read the label to learn the possible side effects, as shown in the picture. Ask your physician or pharmacist about side effects.



Many commonly used medicines can affect your driving ability.

ALLERGY TABLETS

INDICATIONS FOR USE: provides relief from hay fever, upper respiratory allergy symptoms; sneezing; runny nose; itchy, watery eyes.

DOSAGE: Adults and children over 12: 1 tablet every 4 to 6 hours. Not to exceed 6 tablets in 24 hours. Children 6 through 11 years: ½ the adult dose (break tablet in half) every 4 to 6 hours. Not to exceed 3 whole tablets in 24 hours. For children under 6, consult a physician.

WARNING: Do not take this product if you have asthma, glaucoma, or difficulty in urination due to enlargement of the prostate gland, except under the advice and supervision of a physician.

CAUTION: Do not drive or operate heavy machinery as this preparation may cause drowsiness. Avoid alcoholic beverages while taking this product. May cause excitability, especially in children.

WARNING: Keep this and all drugs out of reach of children. In case of accidental overdose contact a physician or poison control center immediately. As with any drug, if you are pregnant or nursing a baby, seek the advice of a health professional before using this product.

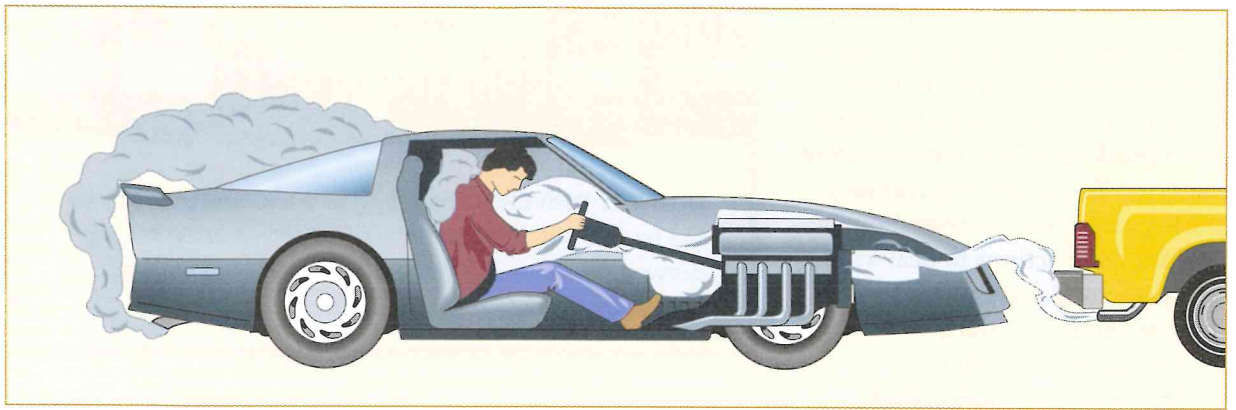
FORMULA: Each tablet contains Chlorpheniramine Maleate 4mg.

May also contain: Cellulose, Color, Croscarmellose Sodium, Dicalcium Phosphate, Lactose, Magnesium Stearate, Povidone, Sodium Starch Glycolate, Starch, Talc, and other ingredients.

Store at room temperature (59°-86°F).

Protect from excessive moisture.

Keep tablets in carton for better identification until used.



In heavy traffic, your intakes might draw in carbon monoxide from the exhaust of the car ahead.

- A medicine can affect you differently at different times.
- If possible, drive to your destination before taking the medicine.
- If you must drive after taking medicine, try to choose a quiet, less-congested route.

Effects of Carbon Monoxide Your vehicle's exhaust fumes contain **carbon monoxide**, a colorless, odorless, and tasteless gas. Carbon monoxide is present in all engine exhaust gases.

You can sometimes detect carbon monoxide in a vehicle because it is mixed with other exhaust fumes that do have an odor. However, you cannot tell how concentrated the carbon monoxide is by the odor of the exhaust fumes. If there is no odor, you cannot be sure there is no carbon monoxide.

Small amounts of carbon monoxide can cause drowsiness, headaches, muscular weakness, mental dullness, and nausea. Too much carbon monoxide can cause death.

Be alert for the danger of carbon monoxide in heavy traffic and in

such enclosed areas as tunnels and underground parking facilities. Your heater or air conditioner vents might draw in exhaust fumes from the car ahead, as shown here. Leaving a rear window open might create a slight vacuum that pulls in exhaust fumes.

Take these actions to prevent carbon monoxide exposure and combat its effect:

- If your vehicle is parked in a garage at home, open the garage door before starting the engine.
- Avoid running the engine inside a garage. Move your vehicle outside after starting the engine.
- In stop-and-go traffic, keep a three-second following distance. Stop where you can see the tires of the vehicle ahead touching the pavement.
- In traffic jams, especially in enclosed areas, turn off the engine when possible.
- Check your exhaust system regularly.
- Do not drive with the rear windows open.

- Move a person who is overcome by carbon monoxide into fresh air. Seek medical help immediately.

Smoking Be aware that smoking while driving is dangerous. Smoking raises the carbon monoxide level in a person's blood. Smoke residue accumulates on windows and affects vision.

Discourage your passengers from smoking. Carbon monoxide from tobacco smoke can affect even non-smokers in an enclosed area such as a vehicle. If someone does smoke in your vehicle, open a window to provide fresh air.

Effects on Risk Taking

Temporary illness, such as a cold, can affect a driver's risk-taking decisions. Because they are temporary, many drivers do not recognize the illness's influence on their driving skills. They might be more willing to,

and often do, take chances they would not take if they were well. Being tired or under the influence of medicines can increase your chances of being in a collision. Be aware of the side effects of medicines by reading the labels. Compensate for side effects of medicines and for illness by using an extra space cushion and taking even fewer chances.

Permanent and Physical Disabilities

Special vehicle equipment and controls can make it possible for many people with permanent disabilities to drive, as shown in the picture. Still others can control their disabilities with medication.

Older Drivers As a nation, we are healthier and living longer. As a result, more older drivers are using the roadways. One in six drivers is over age 65. Eighty percent of drivers over age 75



Vehicles are often adapted to help physically challenged people maintain independence.



Special parking areas and license plates help disabled drivers reach their destinations safely.



SAFE DRIVING

It is illegal to park in handicapped-designated parking spaces unless you have special identification.

take prescribed medicines. Aging slows reflexes, dulls vision and concentration, can make muscles weaker and inflexible, and reduces depth perception and field of vision. Failure to yield the right of way is the main factor in collisions involving older drivers. However, drivers over 65 are still involved in fewer collisions per mile driven than those under 30.

Chronic Illnesses A chronic illness is an ailment that lasts over a period of years. Some chronic illnesses have little effect on driving. Other illnesses, such as heart disease, could seriously impair a person's ability to drive.

Some chronic illnesses require regular medications that can cause side effects that interfere with driving. Some people have diseases that cause sudden loss of consciousness or muscular control. Before these individuals can receive a driver's license, they must provide medical proof that their chronic illness is under control.

Effects on Risk Taking

Most drivers with permanent disabilities do not take unnecessary chances with driving decisions influenced by their disabilities. These drivers often understand that the disability itself may put them at a higher level of risk. The solution is knowing that you have the disability, admitting you have it, and compensating for it.

Whatever the illness or disability, everyone who can perform the driving tasks safely and successfully earns the privilege of being licensed to drive when all other requirements are met. Sometimes they are required to take more frequent testing to maintain that privilege.

Some drivers with permanent disabilities have special license plates or window cards with the handicapped symbol. The symbol also appears on license plates or window cards of drivers who often transport handicapped people. Vehicles with these license plates can park in specially marked areas in parking lots and on streets.

Review It

1. How can you compensate for the effects of fatigue?
2. How can you avoid and combat exposure to carbon monoxide?
3. How can a permanent disability affect your driving?

Reviewing Chapter Objectives

1. Emotions and Driving

1. How can anger affect your ability to drive? (293–294)
2. How can you help a driver when you are a passenger? (295–296)
3. What can you do to manage your emotions while driving? (296–297)
4. How do emotions influence your willingness to accept risk? (296)

2. Physical Senses and Driving

5. What are the parts of your field of vision? (299–300)
6. What can you do to compensate for poor depth perception? (300)
7. How do your senses help you drive? (298–303)

3. Physical Disabilities

8. What can you do to combat fatigue? (304–305)
9. What can you do to avoid carbon monoxide exposure and deal with its effects? (306–307)
10. What can drivers who have permanent disabilities do to compensate? (307–308)

Projects

Individuals

Investigate Research newspaper articles about traffic collisions involving drivers who were fatigued. Write a report about a collision involving a driver who fell asleep at the wheel.

Observe Traffic Keep track of the sounds you hear for a week as a passenger in a vehicle. Make a list of each sound you hear, and count the number of times you hear that particular sound. (Focus on vehicle-related sounds and sounds coming from outside the vehicle. Do not include sounds made by the driver or passengers.) At the end of the week, compare your results with those of your classmates.

Groups

Demonstrate Prepare a short skit that takes place in a vehicle. Six students have just attended a football game at another school. They are on their way to a victory party. Demonstrate examples of good as well as unacceptable behaviors in the vehicle. Present the skit to your class.

Use Technology Prepare a spreadsheet that contains each group member's visual acuity score. (If you do not know your visual acuity score, you need to take a visual acuity test to find out.) List the different ratios in descending order.

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.

- Emotions influence driving because they
 - cause you to drive fast.
 - change the way you assess risk.
 - change the way you make driving decisions.
 - both b and c
- A person who must be twice as close to an object to see it as clearly as a person with normal visual acuity has
 - 20/20 vision.
 - 20/40 vision.
 - 20/60 vision.
 - 20/200 vision.
- The part of your peripheral vision closest to your central vision is called
 - fringe vision.
 - tunnel vision.
 - depth perception.
 - side perception.
- The best way to prevent fatigue on long drives is to
 - increase speed to shorten trip time.
 - wear sunglasses.
 - turn on the air conditioner.
 - rest before you start.

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

- While driving, drivers experience the emotion of _____ more often than any other.
- Your _____ allows you to judge the distance between yourself and other objects.
- Carbon monoxide gas is present in the _____ of a vehicle.
- Most collisions involving older drivers are caused by failure to _____.

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

- ability to continue seeing when looking at bright lights
- occurs when objects off to your sides become blurred and distorted as your speed increases
- ability to see things clearly both near and far away
- time your eyes need to regain clear vision after being affected by glare
- ability to judge distance between yourself and other objects
- not being able to distinguish colors
- not being able to see well at night
- narrow field of vision of 140 degrees or less

List B

- | | |
|------------------------|---------------------|
| a. color blindness | e. night blindness |
| b. speed smear | f. glare resistance |
| c. glare recovery time | g. depth perception |
| d. visual acuity | h. tunnel vision |

Think Critically

Write a paragraph to answer each question.

- List and discuss the techniques you can use to control your emotions while driving.
- Explain how you would prevent exposure to carbon monoxide poisoning in the vehicle you drive.

Decision Making



1. Where should you direct your clear central vision in the next few seconds of driving?



2. What is causing this driver to be impaired for a few seconds? What actions could the driver have taken to prevent this impairment? What can the driver do now to minimize the danger?



3. These people are having an argument. How could the argument affect the driver's ability to drive?



4. How are these passengers affecting the driver? What should they be doing to help?

