AARP Driver Safety gratefully acknowledges the many groups and individuals who contributed their time and knowledge to help create the AARP Smart Driver™ Course.

With support from a generous grant from Toyota to AARP Foundation, AARP Driver Safety launched an extensive curriculum research process. Over several years, hundreds of individuals from around the country helped evaluate AARP Driver Safety’s existing course and conducted research for the development of the new AARP Smart Driver Course.

First and foremost, we thank the dedicated members of the Volunteer Driver Safety Task Force, who contributed significant time and talent to ensuring that the AARP Smart Driver Course is beneficial to the hundreds of thousands of drivers who complete it each year. In addition to the Task Force, AARP Driver Safety thanks the members of a volunteer Review Panel and subcommittees, who offered insight and made recommendations on the following aspects of the AARP Smart Driver Course: content, communications, design, diversity, expanded education and tools, implementation, online course, operations, state regulations, video, and volunteer training.

AARP Driver Safety would also like to thank the members of the National Older Driver Safety Expert Panel, who contributed significant time and talent to ensuring that the AARP Smart Driver Course is beneficial to the hundreds of thousands of drivers who complete it each year. In addition to advising on course content, the Expert Panel helped identify technological innovations in cars and provided insight on best practices in adult safety education from around the world. The Expert Panel consisted of members from a number of organizations, including: the American Occupational Therapy Association; the Centers for Disease Control and Prevention; the Center for Translational Research on Aging and Mobility at the University of Alabama at Birmingham; the Federal Highway Administration; Governors Highway Safety Association; The Hartford Center for Mature Market Excellence; the Institute for Mobility, Activity and Participation at the University of Florida; the Insurance Institute for Highway Safety; MIT AgeLab; the National Highway Traffic Safety Administration; the Toyota Collaborative Safety Research Center; the University of Iowa Aging Mind and Brain Initiative; the Veterans Affairs Connecticut Healthcare System; the Virginia Tech Transportation Institute; and Yale University, School of Medicine.

We are also incredibly grateful for the abundant support from AARP Driver Safety Staff and AARP Staff throughout the Association, including AARP Foundation Tax Aide, Audio and Video Programming, Brand Strategy and Services, Digital Services, Education and Outreach, Financial Services, Information Technology Services, Media Relations, Office of General Counsel, Office of Volunteerism and Service, Organizational Development, Procurement, Public Policy Institute, Research and Strategic Analysis, Risk Management, State Offices, and Translations.

Finally, we thank our national network of nearly 7,000 volunteers who dedicate countless hours each year to teaching and promoting the AARP Smart Driver Course. Without their ongoing support, AARP Driver Safety could not exist.
Welcome to the AARP Smart Driver™ Course!

The AARP Smart Driver Course, offered by AARP Driver Safety, is the nation’s first and largest refresher course designed specifically for older drivers. For more than 30 years, the classroom and online courses have taught millions of drivers proven safety strategies so they can continue driving safely for as long as possible.

This course provides research-based information to help you update your driving knowledge and skills. By participating in this course, you are taking advantage of an important opportunity to learn how to drive more safely and confidently. In fact, research shows that as a result of completing the course, most people make positive changes to their driving behaviors.

We are always looking for ways to improve the AARP Smart Driver Course content and participant experience. After you have completed the course, please let us know about your experience—what you enjoyed and how we can improve—by completing and mailing the “Instructor Evaluation” in the Participant Guidebook. Your feedback will be kept confidential.

If you feel that your friends or family members may benefit from the AARP Smart Driver Course, we encourage you to give them a Tell-a-Friend Card, so that they too can take advantage of the opportunity to update their driving knowledge and skills. Tell-a-Friend Cards are attached to your name tent in the Participant Guidebook.

Our goal is for you to become an even safer driver as a result of this course. In addition to this course, we have also created an online Driving Resource Center, www.aarp.org/drc, a website built for you to continue to build on the information and knowledge you have gained through taking this course.

We hope you find the course valuable and worthwhile, and we thank you for your participation in this program.

Sincerely,
The AARP Driver Safety Team
AARP is a nonprofit, nonpartisan organization, with a membership of more than 37 million, that helps people turn their goals and dreams into real possibilities, strengthens communities and fights for the issues that matter most to families such as healthcare, employment and income security, retirement planning, affordable utilities and protection from financial abuse. We advocate for individuals in the marketplace by selecting products and services of high quality and value to carry the AARP name as well as help our members obtain discounts on a wide range of products, travel, and services. A trusted source for lifestyle tips, news and educational information, AARP produces AARP The Magazine, the world’s largest circulation magazine; AARP Bulletin; the AARP website www.aarp.org; AARP TV & Radio; AARP Books; and AARP en Español, a bilingual news source. AARP does not endorse candidates for public office or make contributions to political campaigns or candidates. The AARP Foundation is an affiliated charity that provides security, protection, and empowerment to older persons in need with support from thousands of volunteers, donors, and sponsors. AARP has staffed offices in all 50 states, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands. Learn more at www.aarp.org.

The Course will provide a review of driving skills and techniques, as well as strategies and tips to help you adjust to normal age-related changes that may affect your driving ability.

The information and recommendations contained in this publication have been compiled from sources believed to be reliable and to represent the best current opinion on the subject. No warranty, guarantee, or representation is made by AARP as to the absolute correctness or sufficiency of any representation contained in this publication, and AARP assumes no responsibility in connection therewith, nor can it be assumed that all acceptable safety measures are contained in this publication or that other or additional measures may not be required under particular or exceptional conditions or circumstances.

AARP Driver Safety does not endorse any products or services.
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Introduction

This course offers you an important opportunity to learn how to drive more efficiently and safely. The course contains up-to-date information about changes over time in ourselves, our vehicles, and our roads.

The content of this course can help you boost safety awareness, refresh and improve driving skills, minimize crash risk, increase confidence, prolong mobility, and maintain independence.

GOALS

Review the course objectives and explore the course content.

Discuss the reasons for taking a driver safety course.

Evaluate your current knowledge of driving rules and situations.
Course Objectives

By completing this course, you will:

- Learn research-based safety strategies that can reduce the likelihood of having a crash.
- Understand the links among the driver, vehicle, and road environment, and how this awareness encourages safer behavior.
- Learn how aging, medications, alcohol, and other health-related issues affect driving ability, and ways to adjust to allow for these changes.
- Increase confidence.
- Know how to drive safely when sharing the road with other road users.
- Learn the newest safety and advanced features in vehicles.
- Learn when driving may no longer be safe.
- Explore other ways to travel.

WHY A SAFE DRIVING REFRESHER IS IMPORTANT TO YOU

I’ve been driving safely for years; what can this course teach me?

Here’s what you need to know:

- Our abilities are changing.
- Our cars are changing.
- Our roads are changing.
- Our state laws are changing.

Here’s what you can do with this information:

- Adapt to personal changes.
- Remember simple safety strategies.
- Apply safety strategies in all driving situations.
- Plan for the future.
- Keep your driving knowledge and skills current.
- Adopt strategies to help reduce your chances of becoming involved in a crash.
Course Road Map

1. Why Are We Here?
2. What’s Changing?
3. What Practices Make Us Safer?
4. What Strategies Apply?
5. What About the Future?
6. What Have We Learned?
# Pre-Course Quiz

For each of the following, circle the letter beside the statement that you feel is the BEST answer.

## 1. Benefits from attending the AARP Smart Driver Course include: (Overall)

- a. Improved understanding of changing health, vehicle technologies, and roadways
- b. Awareness of the need to examine all travel options
- c. Identification of potential hazards and safety strategies
- d. All of the above

## 2. Typical challenges for older drivers include: (Unit 1)

- a. Making left turns, especially at intersections
- b. Failing to yield the right-of-way
- c. Merging into another traffic lane
- d. All of the above

## 3. Which of the following types of medications are potentially dangerous in a driving situation? (Unit 2)

- a. Prescribed
- b. Herbal supplements
- c. Over-the-counter
- d. All of the above

## 4. A smart driver knows that this amount of alcohol can impair our driving: (Unit 2)

- a. One drink
- b. Three drinks
- c. The amount you can drink depends on what type of alcohol you are drinking
- d. The amount you can drink depends on how much food you have eaten

## 5. Every four-way, two-lane intersection has how many possible conflict points for vehicles? (Unit 3)

- a. 8
- b. 20
- c. 32
- d. 56

## 6. Roundabouts are found to result in ______ crashes than traditional intersections. (Unit 3)

- a. fewer
- b. more
- c. the same amount of
- d. higher impact
7 Which is NOT a safe strategy of highway driving? (Unit 4)
   a. Stay out of other drivers’ blind spots
   b. The left lane is used for passing
   c. Changing lanes without using turn signals
   d. Avoid unnecessary lane changes

8 Some key driving strategies are: (Unit 4)
   a. Be ready to react to unexpected situations
   b. Drive when you are emotionally and physically fit to do so
   c. Observe and obey all traffic control laws
   d. All of the above

9 A warning sign of unsafe driving is______________. (Unit 5)
   a. stopping at stop signs or stop lights
   b. avoiding left turns
   c. driving too slowly; other drivers often honk horns
   d. allowing at least a 3-second following distance from the vehicle in front of you

10 How do you help someone who has problems driving? (Unit 5)
   a. Start the conversation with concern about his or her well-being and try to let the person preserve self-respect
   b. Ask the person to consider having a formal driving assessment
   c. Be supportive of changes the driver has already made and explain the availability of other travel options
   d. All of the above
National Driving Statistics

Driver Crash Rates

Older drivers are generally safe drivers, but fatal traffic crashes per mile driven become more frequent as age increases (see the chart below).

More than 90% of crashes are preventable.

Other key statistics:

- About 30 percent of fatal crashes involving drivers age 65+ occur at intersections; this jumps to about 40 percent for drivers age 85+.
- Adults age 65+ are over-represented in the number of traffic deaths compared to the rest of the U.S. population.
- Crashes cost the United States more than $230 billion annually in productivity losses, property damage, medical costs, legal costs, emergency services, insurance costs, and costs to employers.

Fatal Crash Rates

Drivers age 85+ have the highest fatality rates per mile driven.
The fatal crash rate begins to increase noticeably at age 70+.

Number of passenger vehicle fatal crash involvements per million miles traveled by driver age group.
Why Are We Here?

Fatality Rates

If involved in a crash, older drivers and older passengers are more likely to be killed than younger persons because of their increased fragility.

Typical challenges for older drivers:

- Making left turns at intersections, especially where there is no traffic signal.
- Failing to yield the right-of-way.
- Merging into another traffic lane.
- Operating a motor vehicle on a high speed roadway.
- Driving at dusk or at dawn.
- Driver distraction.

While such statistics are alarming, they also alert us to our most troublesome driving situations and where we may need to refocus to reduce the chance of a crash.

State-Specific Information

Leading causes of death on my state’s roads:

Leading causes of crashes on my state’s roads:
Complete the sentences on the left with the correct answers from the column on the right.

1. Roads and vehicles, as well as our own _____, have changed over the years.
   a. increase

2. Some of the changes we face can affect our ability to _____.
   b. failing

3. Typical problem situations for older drivers include making left turns (especially at intersections), ____ to yield the right-of-way, and _____ into another traffic lane.
   c. drive safely
   d. merging
   e. current
   f. bodies

4. Crash-related deaths per mile driven begin to _____ markedly after age 70.
   g. local travel options
   h. reduce

5. If involved in a crash, older drivers and older passengers are more likely to be killed than _____.
   i. younger persons

6. This course will help us keep our driving knowledge and skills _____.

7. This course will provide strategies to help ____ our chances of becoming involved in a crash.

8. This course will help us identify ____ that are available if and when we have trips that we want to make without driving.

For more information on anything you have learned in this course, go to www.aarp.org/drc.
Introduction

As experienced drivers, you are familiar with basic driving principles that are not likely to change. For example, a stop sign means stop. That is simple and has not changed over decades. On the other hand, there are components of driving that are new, such as vehicle technology, which did not exist many years ago. In addition to our vehicles, the roads that we use are changing. We are also experiencing changes in our bodies.

Remember our theme throughout the course—things change.

We will discuss and review these changes to highlight the driving-related issues that come with them, and we will discuss how to address these changes in ways that allow us to maintain safe driving practices.

Learn how our driving is affected by changes in ourselves.

- Medications
- Medical conditions
- Alcohol
- Vision

- Hearing
- Brain health
- Flexibility, strength, and endurance

Discuss new vehicle technologies.

Review changes in roadway designs.
Our Changing Selves and How These Changes Affect Our Driving

We are all keenly aware that our bodies and minds are changing. While some changes occur rapidly, some are so gradual that we may not be aware of them until someone like the family doctor asks if we have noticed any changes since the last visit. These changes, both visible and subtle, can have an impact on driving in a variety of ways, some of which are quite surprising. In this section, we will discuss some of the ways our bodies are changing and how these can affect our driving.

Medications

Medications are of concern at any age. They may cause side effects that negatively affect our driving ability.

- The side effects from some medications (blurred vision, confusion, inability to concentrate, drowsiness, dizziness, or general muscle weakness) may gradually become more pronounced with age, and may therefore seriously affect our driving. Because our bodies tend to slow down as we become older, it takes longer for the effects of medications to wear off after we have stopped taking them.

- Medications interact with each other; the more medications we take, the greater the chance for interactions that may influence our driving.

- Over-the-counter medicines, including herbal remedies, may have side effects and interact with prescription medications.
Medical Conditions

Some medical conditions can put limitations on our ability to drive. How a condition affects our sensory, motor, or mental well-being is really important. Here are some functional problems to be concerned about:

- Inability to recognize potentially dangerous situations.
- Inability to react quickly enough to avoid dangerous situations.
- Temporarily losing control of your vehicle’s speed or direction.
- Forgetting how to travel a familiar route.

(See “Red Flag” Medical Concerns on page 113 in the Unit 2 section of the Appendix.)

MEDICATION TIPS

- All medications (prescribed, over-the-counter, and herbal supplements) are potentially dangerous.
- Never take medications prescribed for another person.
- Do not mix medications unless indicated by your physician.
- Take medication at the doses and times prescribed.
- For any new medication, see how you react to it before attempting to drive; each person’s reaction to any medication is unique.
- Make sure you are free of any harmful side effects before driving; plan other ways to get around.
- Never take medicines past their expiration dates.
- Never drink alcohol while on any medication without first consulting with your doctor.
- Carry a list of your medications with you.
- Check with your doctor or pharmacist to find out if any of the medications you are currently taking could affect your driving ability.
- Always read the information that comes with your medication for side effects that could impact your driving.

(See Medical Action Sheet on page 112 in the Unit 2 section of the Appendix.)
The following is a list of specific medical conditions that may affect your driving. Always check with your physician for advice.

<table>
<thead>
<tr>
<th>CERTAIN MEDICAL CONDITIONS MAY AFFECT YOUR DRIVING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Condition</td>
</tr>
<tr>
<td>-------------------</td>
</tr>
<tr>
<td>Alcoholism</td>
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<td>Arthritis</td>
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<td>Dementia/Memory Disorders</td>
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<td>Clinical Depression</td>
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<tr>
<td>Diabetes – Non-Insulin Treated</td>
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<tr>
<td>Diabetes – Insulin-Treated</td>
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<td></td>
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<tr>
<td>High or Low Blood Pressure</td>
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</tbody>
</table>

NOTES
## CERTAIN MEDICAL CONDITIONS MAY AFFECT YOUR DRIVING

<table>
<thead>
<tr>
<th>Medical Condition</th>
<th>Driving Recommendations to Consider</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parkinson's Disease</td>
<td>• Driving may be permitted based on outcome of assessment for severity of symptoms and response to treatment. • Evaluations are recommended every 6–12 months because of the progressive nature of this disease.</td>
</tr>
<tr>
<td>Seizures</td>
<td>People who have suffered seizures should refrain from driving until cleared by a doctor.</td>
</tr>
</tbody>
</table>
| Sleep Disorders            | • **Narcolepsy:** Should cease driving dependent upon diagnosis. Driving may be permitted when satisfactory control of symptoms is achieved.  
                            | • **Sleep Apnea:** Driving permitted when satisfactory control of symptoms is achieved.                                                                                  |
| Strokes                    | People should consult a medical professional before driving.                                                                                                             |
| Surgery's Aftereffects      | People should consult a medical professional before driving. Driving risk varies depending on the type of surgery.                                                        |
| Thyroid Disease            | People may drive if stable; should consult a medical professional.                                                                                                |
| Visual Conditions or Diseases | Many kinds of visual limitations can be corrected or treated, but severe visual limitations may lead to loss of driving privileges.                                      |

### NOTES
Alcohol

Alcohol-impaired driving, or “drunk driving” can occur even with small amounts of alcohol, because alcohol affects everyone differently.

- Alcohol’s effect on driving begins with a person’s first drink.
- Blood Alcohol Concentration (BAC) may be affected by age, gender, physical condition, medication, time, food, and other factors.
- As the body ages, its ability to break down alcohol decreases. Therefore, the alcohol stays longer in an older person’s body.
- Alcohol needs no digestion time and is absorbed directly through the walls of an empty stomach; it can reach the brain within 60 seconds.
- Mixing alcohol and medications may have unexpected effects on your driving. A “drink” is defined as one 12-ounce beer or wine cooler, one 5-ounce glass of wine, or 1.5 ounces of 80-proof distilled alcohol; it takes about an hour for that one drink to leave the body.
- Mixed drinks contain different amounts of alcohol, so it is important to know how much alcohol has been consumed, not just how many drinks a person has had.
- BAC can continue to rise for a period of time after the last drink is consumed.
- Drinking coffee, exercising, or taking a cold shower cannot speed up the rate at which alcohol leaves the body.

### EFFECTS OF BLOOD ALCOHOL CONCENTRATION (BAC)

<table>
<thead>
<tr>
<th>BAC</th>
<th>Level of Impairment</th>
</tr>
</thead>
<tbody>
<tr>
<td>.00</td>
<td>Only safe level!</td>
</tr>
<tr>
<td>.01 – .03</td>
<td>Impairment begins—Reflexes, vision, judgment, and concentration start to become affected.</td>
</tr>
<tr>
<td>.04 – .07</td>
<td>Risk of crash—Greater effects to reflexes, vision, judgment, and concentration. Effects are increased when combined with fatigue, illness, stress, other drugs, or poor driving conditions.</td>
</tr>
<tr>
<td>.08 – .11</td>
<td>Increased risk of crash—Illegal in every state; risk of crash is 6 to 10 times greater than at .00 BAC, and level of impairment is greatly increased.</td>
</tr>
<tr>
<td>.12 – .15</td>
<td>Very high risk of crash—Motor skills, mental functions, and vision are severely impaired.</td>
</tr>
<tr>
<td>.16+</td>
<td>Extreme crash risk!—Possible unconsciousness at .25 – .35 BAC; death may occur at about .35 – .45 BAC.</td>
</tr>
</tbody>
</table>

All 50 states and the District of Columbia have laws making it a crime to drive with a Blood Alcohol Concentration (BAC) at or above .08.
Vision

The use of vision is key to all aspects of driving. Good near and distance vision are needed to identify road hazards, read signs, and view your dashboard.

There are several factors that can affect the health of your eyes. Awareness of vision-related changes and problems will help you to continue to drive safely.

### CERTAIN EYE CONDITIONS HAVE SERIOUS IMPLICATIONS FOR YOUR DRIVING

<table>
<thead>
<tr>
<th>Condition</th>
<th>Symptom</th>
<th>Driving Danger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cataracts</td>
<td>Less light, fuzziness, difficulty focusing</td>
<td>Reduced ability to see signs or objects in dim light</td>
</tr>
<tr>
<td>Glaucoma</td>
<td>Reduced peripheral vision</td>
<td>Reduced ability to judge speed and distance of other vehicles</td>
</tr>
<tr>
<td>Macular Degeneration</td>
<td>Reduced central vision</td>
<td>With severe symptoms, no ability to drive safely</td>
</tr>
</tbody>
</table>

**Visual Acuity**

When your eye doctor asks you to read the letters on an eye chart, you are being tested for visual acuity, or how clearly or acutely you can see. People who have a history of eye conditions that may affect driving seem to have more crashes than others.

There are two types of visual acuity:

- **Static visual acuity** is the ability to see stationary objects clearly.

- **Dynamic visual acuity** is the ability to see objects in motion clearly.

Although many people can continue to see clearly as they get older, there are relatively larger changes in the ability to see moving objects over time.

Acuity problems may lead to a higher risk of crashes. There is also evidence that the lens of your eye becomes yellow and less transparent with age, and your pupils become smaller and less able to dilate in dim light. This can be particularly problematic when driving at dusk or dawn.

**Color Blindness**

Color blindness may cause problems when identifying traffic signals or brake lights of other vehicles while driving. With cataracts, your ability to tell the difference between colors gradually decreases.
Contrast Sensitivity

**Contrast sensitivity** is the visual ability to see objects that are not outlined clearly or do not stand out from their background. Poor contrast sensitivity can be a symptom of serious eye conditions.

Examples of problems could include difficulty seeing pedestrians walking along poorly lit roads and road signs in fog or at night.

Useful Field of View

**Useful field of view** refers to the amount of visual information that can be processed in a brief glance using both eyes. It is directly related to our ability to process information quickly and accurately. It takes less time to simply see and identify a single object than it does to divide your attention between two or more objects.

For example, we can identify and react easily to a stop sign at an empty intersection. If you add a pedestrian crossing in front of you and an oncoming vehicle making a left turn into the intersection, it becomes much more complicated. Our ability to process information gradually slows with age, particularly for situations in which the environment is very complex.

Depth Perception

**Depth perception** gives us the ability to judge the distance of objects in relation to ourselves, especially when those objects are moving toward or away from us.

For example, depth perception is important in judging the distance and speed of approaching vehicles when merging or turning.

Peripheral Vision

**Peripheral vision** is the ability to see outside your immediate field of view, such as seeing a vehicle approaching you from either side, without having to take your attention away from what is in front of you.

Our ability to use depth perception and peripheral vision gradually weakens with age. This decline makes distances and speeds of vehicles more difficult to judge, and objects coming from each side of our field of vision may surprise us.
Activity: Judging Your Vision

Directions: For each question, check Yes or No.

1. Do you experience difficulty maintaining a safe speed for your driving conditions?
   - Yes [ ] No [ ]

2. Does glare present a problem when you are driving during the day or at night?
   - Yes [ ] No [ ]

3. When making a right turn at an intersection, do you sometimes strike the curb or run over it?
   - Yes [ ] No [ ]

4. When approaching an intersection, do traffic signals or control signs appear to be blurred?
   - Yes [ ] No [ ]

5. Do you have difficulty reading the messages appearing on flashing message signs over or along the highway?
   - Yes [ ] No [ ]

6. When following another vehicle, do you have difficulty maintaining a safe following distance?
   - Yes [ ] No [ ]

7. When merging into traffic, are you sometimes surprised by another vehicle occupying that lane?
   - Yes [ ] No [ ]

8. Do you sometimes ask yourself, “Where did that car come from?”
   - Yes [ ] No [ ]

9. When making a left turn at an intersection, are you ever surprised by the speed of the oncoming vehicles as they move toward the intersection?
   - Yes [ ] No [ ]

10. Does driving in less than perfect weather conditions such as rain or fog present a problem for you?
    - Yes [ ] No [ ]

If you answered “Yes” to any of these questions, you may be experiencing a vision problem. If you answered “Yes” to several questions, you may need to schedule an appointment with your eye doctor.
Before You Drive

- Make sure your windshield and windows (inside and out), headlights, and tail lights are clean.
- Wear clean corrective eyeglasses or contact lenses with an up-to-date prescription.
- Make sure your mirrors are always properly adjusted.
- Have a mechanic check if your headlights are properly adjusted, so they light the road properly and don’t cause glare for other drivers.

While Driving

- Watch for parked vehicles, cyclists, pedestrians, children, and animals—especially those in your peripheral vision.
- Use extra caution when turning left and trying to judge the speed/distance of oncoming vehicles.
- Choose roads that are well lit; avoid poorly lit areas.
- Do not wear sunglasses or dark or tinted glasses at night, dusk, or dawn, unless prescribed by an eye doctor.
- Have a good pair of sunglasses handy for daytime glare situations.
- Drive more slowly at night and avoid looking directly into the headlights of approaching vehicles; look slightly to the right.
- Check mirrors every 5 to 8 seconds, and move your eyes every 2 seconds in order to maintain your ability to recognize hazards.
- Watch for painted lane markings, bike lanes, and parking lanes; these lanes can be difficult to see in low light, rain, or snow.

VISION TIPS

- Have regular eye examinations by a licensed ophthalmologist or optometrist.
- Ask if you should get separate eyeglasses for day and night driving.
- Ask about anti-reflective coatings on eyeglasses to reduce glare and improve night vision.
- Do not use eyeglass frames with wide temples (side pieces); they may restrict side vision.
- Reduce driving at night, dusk, or dawn, when visibility is more limited.
- Use caution driving in rain or fog, or when snow, sleet, or ice are present.
- Have regular eye examinations by a licensed ophthalmologist or optometrist.
- Ask if you should get separate eyeglasses for day and night driving.
- Ask about anti-reflective coatings on eyeglasses to reduce glare and improve night vision.
- Do not use eyeglass frames with wide temples (side pieces); they may restrict side vision.
- Reduce driving at night, dusk, or dawn, when visibility is more limited.
- Use caution driving in rain or fog, or when snow, sleet, or ice are present.

- Vision Tips

  • Have regular eye examinations by a licensed ophthalmologist or optometrist.
  • Ask if you should get separate eyeglasses for day and night driving.
  • Ask about anti-reflective coatings on eyeglasses to reduce glare and improve night vision.
  • Do not use eyeglass frames with wide temples (side pieces); they may restrict side vision.
  • Reduce driving at night, dusk, or dawn, when visibility is more limited.
  • Use caution driving in rain or fog, or when snow, sleet, or ice are present.

- Before You Drive

  • Make sure your windshield and windows (inside and out), headlights, and tail lights are clean.
  • Wear clean corrective eyeglasses or contact lenses with an up-to-date prescription.
  • Make sure your mirrors are always properly adjusted.
  • Have a mechanic check if your headlights are properly adjusted, so they light the road properly and don’t cause glare for other drivers.

- While Driving

  • Watch for parked vehicles, cyclists, pedestrians, children, and animals—especially those in your peripheral vision.
  • Use extra caution when turning left and trying to judge the speed/distance of oncoming vehicles.
  • Choose roads that are well lit; avoid poorly lit areas.
  • Do not wear sunglasses or dark or tinted glasses at night, dusk, or dawn, unless prescribed by an eye doctor.
  • Have a good pair of sunglasses handy for daytime glare situations.
  • Drive more slowly at night and avoid looking directly into the headlights of approaching vehicles; look slightly to the right.
  • Check mirrors every 5 to 8 seconds, and move your eyes every 2 seconds in order to maintain your ability to recognize hazards.
  • Watch for painted lane markings, bike lanes, and parking lanes; these lanes can be difficult to see in low light, rain, or snow.
Hearing

Our sense of hearing helps alert us to situations in or around our vehicle that may require us to respond, such as honking horns, engine sounds, and emergency vehicles. Over time, our hearing may gradually diminish, and we may miss cues that we used to hear routinely. Loud sounds, music, or conversation levels in the vehicle can be a distraction and may take some or all of our attention away from the driving task.

HEARING TIPS

• Be alert to changes in your hearing.
• Visit your physician if you think you have hearing loss.
• Give yourself time to get used to a new hearing aid.
• Adjust air conditioning/heating fan control to the lowest settings.

Before You Drive

• Consider properly installed assistive devices on your vehicle such as a wide rearview mirror.
• Make sure your left and right side view mirrors are properly adjusted.
• Minimize the volume level on radio, CD player, and other music devices.

While Driving

• Check your mirrors frequently to observe the traffic around you and remain alert for the flashing lights of emergency vehicles.
• Watch for trains or flashing lights wherever train tracks cross the road.
• Ask passengers to keep conversation to a minimum if their talking distracts you.
• Check your turn signal indicator light on the dashboard to make sure it is not left in the “on” position.
Activity: Judging Your Hearing

Directions: For each question, check Yes or No.

1. Do you find yourself asking people to speak up or repeat themselves (that is, do people seem to be mumbling)?
   Yes ☐ No ☐

2. Do you have difficulty understanding speech or hearing sounds when background noises are present?
   Yes ☐ No ☐

3. Do you experience noises or ringing in your ears?
   Yes ☐ No ☐

4. Do you experience people telling you that you are not paying attention during a conversation?
   Yes ☐ No ☐

5. Do you experience people telling you that you do not seem to hear them?
   Yes ☐ No ☐

6. Do you have difficulty understanding when someone talks to you from another room?
   Yes ☐ No ☐

7. Has anyone in your family history experienced hearing loss?
   Yes ☐ No ☐

8. Do you hear better with one ear than the other when using the telephone?
   Yes ☐ No ☐

9. Do you have trouble determining where sounds are coming from?
   Yes ☐ No ☐

10. Do you have difficulty understanding the voices of women or young children?
    Yes ☐ No ☐

If you answered “Yes” to any of these questions, you may have some degree of hearing loss. If you answered “Yes” to several questions, you may need to schedule an appointment with a licensed audiologist (hearing specialist).
Brain Health

As we become older, changes may occur in our brain. We can lose the ability to quickly assess and react appropriately to the demands of the driving task.

Our brain health and overall mental well-being are important to the task of driving. Your ability to carry out the following processes should be gauged in assessing your driving competence:

- Attention and reaction time;
- Concentration (paying attention to changes in your driving environment);
- Ability to process information quickly and accurately;
- Problem-solving skills (how to get help if you have a flat tire); and
- Memory (how to get to the doctor’s office).

Slowed reaction time, inattention, and poor judgment are responsible for many crashes at all ages. Because we tend to slow down as we get older, these factors assume increasing importance with advancing years.

An older driver who is physically fit may not be able to drive safely on today’s crowded roadways because of mental decline. Just as it is important to stay physically fit, it is also important to stay mentally fit. The two go hand in hand. Research has shown that physical exercise can stimulate nerve growth in the brain.

### QUICK TIPS FOR SELECTING ACTIVITIES TO SHARPEN YOUR MIND

<table>
<thead>
<tr>
<th>Variety</th>
<th>Mastering a new skill gets easier with time and practice, so introduce some variety. By changing things up on a regular basis, your mind will have to work harder to adapt to the exercise or activity.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Challenge</td>
<td>Never let a task become too routine. Try new activities with increasing levels of challenge or difficulty.</td>
</tr>
<tr>
<td>Novelty</td>
<td>Try new things, since very important parts of the brain (prefrontal cortex) are exercised when you learn to master new cognitive challenges.</td>
</tr>
</tbody>
</table>
Dementia/Alzheimer’s Disease

Dementia is a progressive cognitive disease that affects an increasing number of older people. Like hearing loss, this condition may come on gradually. Many people do not realize they are experiencing early stages of dementia and will continue to drive. This may create an unsafe driving situation for themselves, loved ones, and others. As dementia progresses, alternative transportation should be provided by a family member or caregiver.

Psychiatric/Emotional Conditions

Mental illness is common across all ages. The most common psychiatric diseases include mood disorders (depression, bipolar disorder); anxiety disorders; schizophrenia and other psychotic disorders, such as delusional disorder, delirium, dementia (including Alzheimer’s disease); and substance abuse disorders. People with psychiatric disease have a higher risk of crashes. Anyone with these conditions should seek his or her doctor’s advice.

Fatigue

When you are tired or fatigued, your reaction time slows down. Your judgment and vision may not be as sharp, your attention may wander, you may not be as alert, moodiness and aggressive behavior may increase, and you may have problems with processing information and short-term memory.

According to the National Sleep Foundation, symptoms of drowsiness while driving may include:

- impaired reaction time and judgment;
- decreased performance, vigilance, and motivation to continue to your destination;
- trouble focusing and keeping your eyes open or your head up;
- daydreaming and wandering thoughts;
- yawning or rubbing your eyes repeatedly;
- drifting from your lane, tailgating, driving below the speed limit, and missing signs or exits; or
- feeling restless, irritable, or aggressive.
**Attention and Alertness**

Here are some of the techniques to consider to combat drowsiness or fatigue:

- Pulling over in a safe area and stopping; a 30-minute nap may help.
- Stopping and getting a caffeinated beverage.
- If drowsiness persists, stop driving.
- Plan on stopping at least every 2 hours, or every 100 miles.

**Inattentional Blindness**

Inattentional blindness occurs when you do not see something that is in plain sight. You “looked but did not see.”

- Do not engage in other activities while driving; your full mental focus should be directed to the driving task.

**Reaction Time**

As noted earlier, as we age, reaction time slows, and we need more time to process information. The driving strategies below will help compensate for a slower reaction time:

- Try to steer clear of busy highways and congested traffic.
- Increase your following distance.
- Minimize left turns.
- Eliminate distractions inside the vehicle.
- Review your medications.
- Make sure you are alert.

**Flexibility and Strength**

We need to keep our bodies as flexible as possible, because our whole body is involved in driving. Our entire body needs flexibility from head to toe.

<table>
<thead>
<tr>
<th>Areas of the Body</th>
<th>Why Flexibility Is Necessary for Driving</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neck</td>
<td>For checking the rearview mirror and blind spots when changing lanes</td>
</tr>
<tr>
<td>Torso</td>
<td>For turning left or right when backing up</td>
</tr>
<tr>
<td>Arms, Wrists, Fingers</td>
<td>For steering and using dashboard controls</td>
</tr>
<tr>
<td>Legs, Knees, Ankles</td>
<td>For braking, accelerating, and gear changing (in vehicles with manual transmissions)</td>
</tr>
</tbody>
</table>
Flexibility and Strength Exercises

Here are some simple exercises for muscle groups that are used in driving. Note: You should consult your doctor before engaging in any new exercise program.

Before starting any exercise, it is important to warm up by walking or marching in place for about 5 minutes. This will help your muscles to stretch more effectively and safely. If you experience any pain during these exercises, stop. You can resume these exercises when you no longer feel any pain.

**Exercise 1  Neck Stretch**

1. Start with your head in the center.
2. Slowly turn head to your right and hold for 10 seconds.
3. Come back to center.
4. Repeat by turning head to your left.

*Repeat the whole sequence 3 times.*

**Exercise 2  Torso Stretch**

1. Start with your body centered.
2. Slowly turn from waist to your right and hold for 10 seconds.
3. Come back to center.
4. Then turn slowly to the your left and also hold for 10 seconds.

*Repeat the whole sequence 3 times.*
Exercise 3  Shoulder and Chest Stretch

1. Start with your body centered.
2. Raise arms with palms facing up.
3. Slowly bring hands toward the back of your neck or to your cheeks with elbows pointed forward.
4. Open up elbows and hold stretch for 10 seconds.
5. Bring elbows back together and stretch out your arms.
6. Return to your starting pose.

Repeat the whole sequence 3 times.

Exercise 4  Spine Stretch

1. Start with your body centered and standing up straight.
2. Put your hands on the back of your hips.
3. Lean backwards.
4. Return to your starting pose.

Repeat the whole sequence 3 times.
Walking

When it comes to fitness and increasing endurance, walking every day is one of the easiest and most enjoyable forms of exercise. Try to take a brisk walk for 30 minutes every day. All you need is a good pair of shoes, comfortable clothes, and a safe place to walk. Check out local facilities such as malls, recreation centers, or community centers to explore available options. It is a great way to spend time with friends and family.

Exercise 5  Leg and Ankle Stretch

1. Start by sitting up straight with both feet flat on the floor.
2. Lift your heels up while pressing your toes into the floor. Hold this position for 10 seconds.
3. Slowly drop your heels to the floor.
4. Lift your toes up. Hold this position for 10 seconds.

*Repeat the whole sequence 3 times.*

*To really help you get the most benefit from these exercises, you should try to perform them once a day. Each of these exercises can help improve your fitness and may help make driving a bit easier; they can even be done while sitting. Take a few minutes to do this, and you will feel better as a bonus!*
Changing Vehicles and Technologies

Advances in Vehicle Technologies

Vehicles have drastically changed in recent years. Technologies that were considered advanced just a few years ago have become standard, and new technologies that were not even conceivable several years ago could very well become the next standard. For example, as a result of a program by the U.S. Department of Transportation, future vehicles may be able to communicate with one another and with the roadside infrastructure. Drivers could then receive information about a hazard that is not yet visible, such as around a blind curve or at an intersection with a building obstructing the view.

There are numerous technologies that can be beneficial to drivers.

These advances include:

- **Smart headlights.** Adjust intensity and angle based on the roadway being driven (such as a curve), time of day, weather, and visibility conditions.
- **Reverse monitoring systems.** Provide feedback to a driver while the car is in reverse. This can include back-up cameras and audible warning indicators.
- **Emergency response systems.** Provide an alert and make crash details available to emergency personnel.
- **Assistive parking systems.** Systems that can park a car without input from the driver.
- **Voice-activated systems.** Allow for voice control over many vehicle features.
- **Drowsy driver alerts.** Monitor the driver’s behavior (eyelids, head position), and provide an alert if a driver seems to become drowsy.
- **Crash mitigation systems.** Lessen the impact of a collision by having reinforced body strength, seat belt pre-tensioning (tightening of the seat belt immediately before a crash), and automatic braking.

In addition, there are more hybrid and electric vehicles on the road. These vehicles often rely on some or all of their power coming from batteries that have to be charged. Be particularly mindful that these engines are almost silent at lower speeds, and pedestrians and cyclists may not hear the sound of the engine when they cross an intersection.
Advanced Crash Warning Systems

New vehicle technologies are growing at an increasing rate, especially when it comes to advanced crash warning systems. These are systems that provide alerts and/or automatic braking in the event of an impending crash.

While many manufacturers use different names for these advanced crash warning systems, we will refer to them in generic form.

<table>
<thead>
<tr>
<th>ADVANCED CRASH WARNING SYSTEMS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Forward Collision Warning</strong></td>
</tr>
<tr>
<td>Provides warnings or alerts if you approach a vehicle too quickly. Some systems may also automatically brake to reduce the impact or to prevent a crash.</td>
</tr>
<tr>
<td><strong>Lane Departure Warning</strong></td>
</tr>
<tr>
<td>Provides a warning if you drift outside of the driving lane (for example, if the driver falls asleep). Some systems may also automatically correct the steering or brake to prevent a crash.</td>
</tr>
<tr>
<td><strong>Lane Change Warning</strong></td>
</tr>
<tr>
<td>Provides alerts if you start to change lanes and there is another vehicle or object in the adjacent lane, often an audible warning. Some systems may also automatically correct steering or brake to prevent a crash.</td>
</tr>
<tr>
<td><strong>Blind Spot Warning</strong></td>
</tr>
<tr>
<td>Provides an alert, often a lighted signal in or near the side view mirror, when a vehicle is in your blind spot.</td>
</tr>
</tbody>
</table>
Navigation Systems

These systems are available in some vehicles, as well as smartphones and other portable devices. They provide electronically displayed maps and routing information for your trip and can give step-by-step verbal instructions as you travel your route.

The benefits of navigation systems are:

- You know where you are going and which lane to be in.
- Improves night driving safety. At night, and especially during bad-weather night driving, the system will tell you about and show you an upcoming turn or ramp, long before you can see it. On dark back roads, the system map will give you a preview of what is ahead.

CAUTION

Be extra careful to avoid being distracted by navigation or any voice-activated systems. Never program any system while moving!

Tire Pressure Monitoring System (TPMS)

TPMS continuously monitors the pressure in the tires. The U.S. Government, through the National Highway Traffic Safety Administration, requires that all passenger vehicles, light trucks, and vans be equipped with a TPMS starting in model year 2008. Modern tires often do not obviously show a dangerous lack of tire pressure, so these TPMS warnings provide the driver with valuable information.

The federal standard allows two different low tire pressure warning indicators or icons.

One icon is the cross-section of a tire with an exclamation mark inside.

The other icon is a top view of a vehicle with all four tires exposed.

Cell Phones—Talking and Texting

New technology has been integrated into cars to allow hands-free talking or texting. However, using a hands-free device does not limit the danger of talking while driving. Note: See How to Avoid Distractions in Unit 3, page 60.
Changing Roads

History of Road Design

Just as our bodies and vehicles are changing, so are roadway designs and signage. Think about how much has changed and developed in the last 100 years. In 1905, the Buffalo Automobile Club installed an extensive signpost network in New York State. In 1909, the Automobile Club of California undertook the task of signing the principal highways within a 250-mile radius of San Francisco. Similar clubs conducted comparable efforts in local areas around the nation.

While automobile clubs were busy developing measures to improve the flow of traffic, other entities were developing devices to control the flow of traffic. Here is a chart of the history of road design.

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1911</td>
<td>A centerline is painted on a Michigan road.</td>
</tr>
<tr>
<td>1914</td>
<td>The first electric traffic signal is installed in Cleveland.</td>
</tr>
<tr>
<td>1915</td>
<td>The first STOP sign appears in Detroit.</td>
</tr>
<tr>
<td>1916</td>
<td>The Federal-Aid Act requires that a state have a highway department before it can receive federal money.</td>
</tr>
<tr>
<td>1918</td>
<td>Wisconsin is the first state to erect official route signs as part of its maintenance functions.</td>
</tr>
<tr>
<td>1920</td>
<td>The first three-color traffic signal is installed in Detroit.</td>
</tr>
<tr>
<td>1956</td>
<td>Construction begins on the Eisenhower Interstate System.</td>
</tr>
<tr>
<td>1986</td>
<td>Raised pavement markers go into usage in the United States.</td>
</tr>
<tr>
<td>1987–Present</td>
<td>Advances in roads continue with more roundabouts, alternative intersections design, and Complete Streets Initiatives.</td>
</tr>
</tbody>
</table>
Modern Road Design

The Federal Highway Administration has an ongoing program that highlights safety countermeasures, which can be implemented on roadways and have proven to reduce crashes.

It is important to note that drivers will encounter good and bad road design. Examples include noticeable roadway changes, of which many of us are not aware, but make travel and roads safer for all. The following are proven to have reduced crashes and increased safety:

- **Safety Edge**—Angling the edge of the roadway 30 percent to make it easier for drivers who go off the road to transition back onto the highway.

- **Medians and Pedestrian Crossing Islands in Urban and Suburban Areas**—Areas between opposing lanes of traffic that are raised to provide a separation and refuge for pedestrians crossing traffic.

- **Corridor Access Management**—Controlled entry and exit to roadways.

- **Pedestrian Hybrid Beacon**—Mid-block traffic signals that alert drivers to a pedestrian crosswalk.

- **Backplates with Retroreflective Borders**—Enhances the visibility of traffic signals by including both a contrasting background and a retroreflective border.

- **Road “Diets” (Roadway Reconfiguration)**—More efficient use of roadways to include shared turn lanes and bicycle lanes.

- **Enhanced Delineation and Friction for Horizontal Curves**—Improved curve signage and visibility, as well as “stickier” surfaces to provide greater traction.
Complete the sentences on the left with the correct answers from the column on the right.

1. Check with your doctor or pharmacist to find out if any of your medications have _____ that could affect your driving ability.

   a. depth perception
   b. hearing
   c. side effects
   d. cognitive
   e. fatigue
   f. alcohol
   g. navigation system
   h. flexible

2. _____ is our ability to judge the distance and speed of approaching vehicles when we are merging and turning.

3. Loud music or conversation in our vehicle can distract us from _____ noises, like honking horns and emergency vehicles, which alert us to situations on the roadway.

4. As we age, _____ has a greater effect on our body and stays in our system longer.

5. Very important parts of the brain, like the prefrontal cortex, are exercised when we learn to master new _____ challenges.

6. When a driver is experiencing _____, he or she may drift from his or her lane, tailgate, drive below the speed limit, or miss road signs or exits.

7. We need to keep our bodies as _____ as possible from head to toe, because our whole body is involved in driving.

8. At night and during bad weather, a _____ will show us and tell us about an upcoming turn or ramp, long before we can see it.

For more information on anything you have learned in this course, go to www.aarp.org/drc.
Introduction

Most of you have decades of experience with navigating roadways and applying safe driving behaviors, such as driving the speed limit and wearing a seat belt.

Remember our theme throughout the course—things change. Although you may be very familiar with many of the concepts in this Unit, there are things that have changed over the years.

Review important safe driving practices, skills, and strategies.

- Pre-trip planning and self-preparation
- Checking your vehicle before you go
- Adjusting and/or choosing features to make driving more enjoyable
- Reviewing roadway fundamentals

Discuss state-specific topics related to safe driving practices.

Assess our current knowledge of safe driving practices.
Pre-Trip Self-Preparation and Planning

My Fitness to Drive Today

“Am I fit to drive today?” It is a simple question that can have a major impact on your safety and the well-being of your passengers and fellow road users. Driving is a complex skill that requires adequate physical, visual, and mental abilities to safely execute. These abilities change over time due to age and medical conditions. Notice that this question asks about today.

People are often not aware that driving fitness can vary from day to day. This may be the result of medications, medical conditions, stress, fatigue, weather conditions and how one responds to them, or time of day for a planned trip. Safe drivers ask whether they are fit to drive today based on the circumstances.

Here are several trip planning tools to explore either alone or in combination with one another:

- online map tools and other websites;
- navigation systems;
- mobile apps on a smartphone; and
- paper maps and atlases.

There are several things to consider when properly choosing routes:

- What is the safest route to my destination?
- What areas do I want to avoid? For example, are there busy or confusing intersections, frequent left turns, poorly lit streets, or construction sites?
- Can I combine trips?
- Have I checked the latest traffic report updates using radio, newspaper, email, social media, or my state department of transportation’s website?
- What are the emergency evacuation routes in my community?

Once you select a route, think about how you can make the trip as safe and pleasurable as possible. Some possibilities are to schedule your trip to avoid rush-hour traffic, high speed roads, bad weather, dimly-lit conditions, and times when you, the driver, are not at your best.
Checking Your Vehicle Before You Drive

Vehicle Readiness

Maintaining your vehicle’s condition increases your safety, the safety of others, and helps the environment. To understand your vehicle’s maintenance requirements, you should read your owner's manual and review it frequently. If you follow safe driving strategies and maintain good driving skills, but your vehicle is in poor condition, you are increasing your risk of breakdowns and crashes. Keeping your vehicle well maintained also lowers the cost of operating your vehicle and reduces the likelihood of needing costly major repairs. You also reduce pollution when your vehicle is properly maintained by limiting the amount of dangerous fumes and fluids released.

Brakes

If you notice any abnormal sounds, have a service department check your brakes.

Lights

Periodically check that your headlights, brake lights, turn signals, emergency flashers, and interior lights are clean and working properly. Make sure they are free from mud or dirt that can obscure them. Also, have your lights checked for oxidation and have it removed. You should also check headlight alignment by shining them against a flat surface such as a wall or garage door to see if they are aimed at the same level.

Fluid Levels

- Oil, transmission fluid, and coolant levels should be checked at a scheduled service appointment, based on the miles indicated in the owner’s manual.

- Brake, power steering, and windshield washer fluids should also be checked regularly.

- Make sure each reservoir is full and if you see any sign of fluid leakage, take your vehicle to the repair shop to be serviced.

- Most importantly, make sure you have sufficient fuel.
Although some safety practices have been discussed, the simplest approach may yield the best safety benefits. How many of us regularly walk around our vehicle to see if everything looks okay? This simple habit can help you have a safe trip and only takes a couple of minutes. (See the Vehicle Maintenance Chart on pages 114-115 in the Unit 3 section of the Appendix.)

**Walk Around the Vehicle**

- Check for proper tire inflation.
- Check for clean windows, headlights, and side mirrors.
- Check for fluid leaks.
- Check for wear of windshield wiper blades.

**Check the Environment**

- Check the weather.
- Check road conditions.
- Check for people or obstacles in your path (children playing, trash cans).

---

**Tires**

The condition of your tires plays a major role in the maintenance of your entire vehicle. Well maintained tires provide protection against avoidable breakdowns and crashes, improved vehicle handling, better fuel economy, and increased tire life. When caring for your tires, it is important to do the following:

---

**TIRE SAFETY CHECKLIST**

- **Check the pressure of all four tires regularly.** Additionally, check the spare to make sure they are at the recommended pressure according to the owner’s manual.

- **Always check tire pressure before going on a long trip.**

- **Inspect tires for uneven wear patterns on the tread, cracks, foreign objects, or other signs of wear or trauma.** Remove bits of glass and other foreign objects wedged in the tread.

- **Make sure your tire valves have caps and the lug nuts on the wheels are tight.**

- **Do not overload your vehicle.** Check the tire information decal on the driver side door jamb or owner’s manual for the maximum recommended load for the vehicle.

- **When purchasing tires, ask the date of manufacture.** Recommended shelf life is no more than six years.
Check the Tire Tread

- Many newer tires have built-in treadwear indicators that let you know when it is time to replace your tires. When they appear even with the outside of the tread in two or three places, it is time to replace your tires.

- However, because the indicators are only located at certain parts of the tire, they may not show signs of uneven wear that may occur as a result of under-inflation, for example. You can also check your tread the old-fashioned way with a quarter. As measured with a gauge, tires are not safe when the tread is worn down to 2/32 (1/16 of an inch) or below and should be replaced.

THE QUARTER TEST

Insert a quarter into the tire’s tread, with Washington’s head toward the tire. If no portion of his head is covered, the tread is below 1/8 of an inch and you should consider replacing your tires soon.
### Tire Troubleshooting

**LOOK FOR TIRE WEAR AND POOR INFLATION BY USING THE TABLE BELOW**

<table>
<thead>
<tr>
<th>Clue</th>
<th>Cause</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Both edges worn</td>
<td>Under-inflation</td>
<td>Add more air; check for leaks</td>
</tr>
<tr>
<td>Center treads worn</td>
<td>Over-inflation</td>
<td>Let air out to manufacturer’s specifications</td>
</tr>
<tr>
<td>One-sided wear</td>
<td>Poor alignment</td>
<td>Have wheels aligned</td>
</tr>
<tr>
<td>Treads worn unevenly, with bald spots</td>
<td>Wheel imbalance and/or poor alignment</td>
<td>Have wheels balanced and aligned</td>
</tr>
<tr>
<td>Erratically spaced bald spots</td>
<td>Wheel imbalance or worn shocks</td>
<td>Have wheels balanced or replace shocks</td>
</tr>
<tr>
<td>Edges of front tires only worn</td>
<td>Taking curves too fast</td>
<td>Slow down!</td>
</tr>
<tr>
<td>Saw-toothed wear pattern</td>
<td>Poor alignment</td>
<td>Have wheels aligned</td>
</tr>
<tr>
<td>Whining, thumping, and other abnormal noises</td>
<td>Poor alignment, worn tires or shocks</td>
<td>Have wheels aligned or buy new tires or shocks</td>
</tr>
<tr>
<td>Squealing on curves</td>
<td>Poor alignment or under-inflation</td>
<td>Check wear on treads and act accordingly</td>
</tr>
</tbody>
</table>

If your car is equipped, look for the tire pressure symbol ![tire-pressure-symbol] or ![tire-pressure-symbol] on your dashboard when you turn on your ignition. If this symbol appears and stays on, then it indicates that your tire pressure is too low. Some vehicles will indicate which tire is under-inflated (or you will need to check all tires, including the spare tire, which also has a sensor in some vehicles). Inflate the tire(s) to the appropriate level as indicated in your owner’s manual. Once the tires have been properly inflated, the symbol will disappear the next time you drive your vehicle.
Getting the Right “Fit” in Your Vehicle

Are you comfortable and in control behind the wheel of your vehicle? Checking to see that you and your car “fit” together well can be as important to your safety as a mechanical check-up.

A good fit between you and your vehicle means that you are “car fit.”

- **Clear line of sight over the steering wheel.** You should be able to adjust the steering wheel and/or seat so you can see at least 3 inches above the steering wheel.

- **Adjust the head restraints properly.** The top of the head restraint should be even with the top of your head or as high as it can be adjusted. It should be as close to your head as comfortable and not more than 2½ inches behind your head.

- **Room between the center of your chest and the driver front airbag.** The safe distance is at least 10 inches between your chest and the center of the steering wheel.

- **Fit in your seat comfortably.** You should be able to adjust the seat controls for good visibility (front, side, and rear) and easy access to controls and pedals.

- **Inspect seat belt for proper position and comfort.** The lap belt should fit comfortably but snugly low across your hip bones or upper thighs, below your abdomen. The shoulder belt should fit comfortably across the center of your left shoulder and your chest, never under your arm.

- **Touch gas and brake pedals to measure easy access.** Your feet should be able to reach the pedals without having to stretch. You need to be able to fully depress the brake pedal. You also need to be able to move your foot easily between the brake and gas pedals.

In addition, there are assistive devices that are designed to make you feel more comfortable in the driver’s seat. This equipment may be available for purchase from your local dealership or rehabilitation center. Examples include wedge cushions and seat belt pads. When considering any assistive devices, it is always wise to speak to an occupational therapist about proper use.

Does your car fit you? Go to www.aarp.org/carfit for more information.
Safety Features: Belts, Restraints, Airbags, and ABS

Seat Belts

According to the National Highway Traffic Safety Administration (NHTSA), properly worn seat belts reduce the risk of fatal injury to front-seat passengers by 45 percent. Wear your seat belt at all times, even during short trips. The seat belt must be used with an air bag system to restrain the person until the air bag inflates.

Follow these steps to ensure the seat belt is in the proper position:

1. Check to make sure your belt fits snugly against your body. A seat belt that is too loose is not as effective at preventing injury.

2. Never place the shoulder belt part behind your back or under your arm. Doing this can actually cause injuries. The lower lap part of the seat belt should be placed low and across the hip bones (not across the abdomen).

Child Safety Seats

For the best protection, children younger than 13 should ride in the back seat in an appropriate child safety seat or a properly fitted lap and shoulder belt. Infants should be in the back seat in an appropriate rear-facing child safety seat.

Never place a child safety seat in front of an airbag. Children younger than 13 in the front seat, especially infants in rear-facing child restraints, may be at great risk of injury or death from an inflating frontal airbag.

State-Specific Information

Head Restraints

Neck injuries are reported by drivers in more than 1 in 5 rear-impact crashes. Although studies show that proper adjustment of a head restraint can prevent neck injuries, many drivers do not take the time—or do not know how—to adjust their head restraints.

Here are two tips to help you make sure the head restraint is in the proper position:

- Make sure the middle of the head restraint is even with the middle of your head or as high as it can be adjusted if it will not reach the middle of your head.

- Note the distance between the back of your head and the restraint. The distance ought to be as close as comfort will allow and not more than 2½ inches.
Airbag Tips

Since 1999, all cars have airbags which help save lives. A **seat belt is not enough to totally protect a driver in case of impact.** Airbags provide a cushion from the impact of a car’s hard interior surfaces to reduce death and injury. Driver airbags have reduced driver deaths by about 14 percent, and passenger airbags have reduced deaths by 11 percent. Airbags and seat belts are more effective together in keeping occupants safe.

- Keep at least 10 inches between your chest and the center of the steering wheel.
- In some vehicles an on-off switch allows a frontal airbag to be turned on and off. This switch can be installed for eligible drivers or passengers. Drivers who cannot keep 10 inches between themselves and the steering wheel, or who have certain medical conditions, may be eligible for an on-off switch installation. Consult your local automobile dealership for details.
- Newer vehicles have adaptive front airbag systems that gradually adjust the pressure as the bag inflates. The force of the inflation depends on several factors including the vehicle’s speed at the point of impact and whether the passenger is belted or small.
- Side airbags are also available on most new vehicles and many older ones. Since many crashes involve side impacts, these airbags are essential to prevent injuries and deaths.

Correct Seat Position

To maintain maximum control of the vehicle, drivers should always have two hands firmly on the steering wheel. Drivers should never use one hand or use the steering wheel hub to grip the wheel.

Some drivers may remember being taught the 10 o’clock and 2 o’clock hand position as the only correct position, but research indicates that a safe position for the driver’s hands on the steering wheel can vary. The position of a driver’s hands on the steering wheel may depend on steering wheel design, seat height, and body type.

In the event of a crash, you may be less likely to be injured by an inflating frontal airbag if your hands are lower on the steering wheel. One example of a safe hand position is one hand at 9 o’clock and one at 3 o’clock. Some drivers may even prefer a slightly lower hand position, closer to 8 o’clock and 4 o’clock.
Anti-Lock Brake System (ABS)

ABS brakes are present on most vehicles, and are standard in model year 2012 and newer vehicles.

To determine if you have ABS brakes:

- Check your owner’s manual.
- Look for the ABS symbol on your dashboard when you turn on your ignition before your engine starts.
- When ABS brakes are working:
  - Drivers may experience a rapid pulsation of the brake pedal—almost as if the brakes are pushing back. Sometimes the pedal could suddenly drop.
  - The ABS controller may make a noise that sounds like grinding or buzzing.
  - In some vehicles, you may feel a slight vibration. It is important to keep your foot on the brake pedal when you hear noise or feel pulsations. Do not take your foot off the brake pedal; rather, continue to apply firm pressure.
  - The ABS provides stability and control during skid situations. You should keep pressure on the brakes and steer in the direction you want to go.

### BRAKING WITH ABS

**Remember the three key words:**

**STOMP** Firmly depress the brake pedal.

**STAY** Stay on the brakes. Do not pump the brakes!

**STEER** Steer where you want to go while still braking.
Mirror Settings

All vehicles have blind spots, or places on both sides of your vehicle that you cannot see in the rearview or side view mirrors.

Blind spots for shorter drivers tend to be significantly larger. In addition, the elevation of the driver's seat, the shape of a vehicle's windows, and vehicle design can affect the size of the blind spots.

These simple steps can reduce blind spots/zones:

**Rearview Mirror Adjustment**

1. Sit in the driver’s seat.
2. Adjust the rearview mirror so you can see the entire rear window.

**Left Mirror Adjustment**

1. Sit in the driver’s seat.
2. Rest your head against the driver’s side window.
3. Adjust the left mirror until you can barely see the left rear back of your vehicle.

**Right Mirror Adjustment**

1. Sit in the driver's seat.
2. Lean to your right so you are directly in front of the rearview mirror mount.
3. Adjust the right mirror until you can barely see the right rear back of your vehicle.
**Roadway Fundamentals**

**Signal Lights and Signs**

### Signal Lights

- **Red** Stop.
- **Yellow** Prepare to stop.
- **Green** Go.

### Flashing Red Light

Come to a complete stop and yield to oncoming traffic or pedestrians.

### Flashing Yellow Light

Slow down and proceed with caution.

### Flashing Yellow Arrow

You may proceed in the direction of the arrow after yielding to oncoming traffic.

### Green Arrow

You may proceed in the direction of the arrow. No other traffic is supposed to be in conflict with your turn—your turn is “protected.” You may still proceed once the green arrow turns off if you have a green light, but your turn is no longer “protected.” Other traffic may have the right-of-way, and you must yield.

### Red Arrow

You may not proceed in the direction of the arrow until it turns off. A flashing red arrow means that you must come to a complete stop before proceeding.

### Signs

- **Red Octagon**
  
  Come to a complete stop, and then proceed with caution.

- **Fluorescent Yellow / Green Pentagon**
  
  Pedestrian crossing or school zone.

- **Yellow Circle**
  
  Rail crossing ahead.

- **Yellow Diamond**
  
  General warning about road condition.

- **White Vertical Rectangle**
  
  Regulates driving conditions and/or speed limit.

- **Brown Horizontal Rectangle**
  
  Public recreation or scenic guidance.

- **Red Circle with White Horizontal Bar across Middle**
  
  Do not enter.

- **Inverted White Triangle with Red Border**
  
  Allow other drivers to go first (YIELD).

- **Horizontal Blue Rectangle**
  
  Directions to hospital.

- **Yellow Pennant Pointed Right**
  
  No passing zone.
Pavement Markings

White lane markings separate lanes of traffic traveling in the same direction, or shoulder boundaries.

Crossing a single, solid white line is discouraged.

Crossing double white lines is prohibited.

Yellow lane markings are used to identify lanes of traffic traveling in opposite directions.

Broken lines mean that you are permitted to change lanes or pass when it is safe to do so.

Crossing double yellow lines is prohibited.

When safe to do so, and permitted in your state, crossing solid lines is permitted when turning into driveways.

Lane/Line Markers

Passing Both Directions

Two-lane, two-way roadway: Passing is permitted when safe to do so. Do not try to pass on a hill or on a blind curve.

Passing Prohibited

Two-lane, two-way roadway: Passing is prohibited from both directions. Crossing the centerline is permitted only to turn into driveways, when permitted in your state.
Passing One Direction
Two-lane, two-way roadway: Passing prohibited when the solid yellow line is in your lane.

Undivided Roadway
Multi-lane, two-way roadway: Crossing the centerline is permitted only to turn into driveways.

Center Two-Way Left Turn Lane
Multi-lane, two-way roadway, with two-way left turn lane: This is reserved only for left-turning vehicles in either direction. Special signs and pavement marking arrows are used.

Restricted Lane
Multi-lane, two-way roadway, with special lanes assigned to buses and carpools. Diamond markings for high occupancy vehicles (HOV) and special signs are visible. The double white line indicates that changing lanes at this point is prohibited.
Reversible Lanes

Reversible traffic lanes are usually used to increase traffic flow into and out of the city. Some roadways may have special rules or restrictions during certain early morning and evening hours. These restrictions are often used in large urban areas to improve traffic flow during commuting hours and can include reversing the direction of travel for a lane or road and allowing the use of the shoulder as a travel lane. It is important to know the local traffic restrictions in areas where you plan to drive.

Construction Signs and Construction Zones

Following Signs for Construction Zones

Construction zone areas can be hazardous due to changes in roadway design. With a few exceptions, temporary warning signs for construction, maintenance, and utility work zones are diamond shaped, having a black symbol or message on an orange background.

- Pay attention to where work zones begin and end and any reduced speed postings.
- **Slow down** whether or not workers are present.
- Do not tailgate.
- Be alert for sudden lane changes or shifts.
- Abide by the *posted speed limit* in construction zones.

State-Specific Information
Intersections, Roundabouts, Turning Lanes, and Right-of-Way

Intersections

Intersections are busy places with many hazards for all drivers. At a four-way, two-lane intersection, there are 32 potential conflict points with other vehicles merging, diverging, or crossing, and another 24 possible conflict points if pedestrians are involved.

Older drivers are more likely to be involved in intersection crashes than younger drivers. Remember: One-third of all the fatal crashes of older drivers occur at intersections.

Every 4-way, 2-lane intersection has 32 potential vehicle conflict points.

Your peripheral vision affects your ability to accurately read what is going on at an intersection. Peripheral vision can decline over time, making it harder to see the areas to the sides of your vehicle when facing ahead without turning your head. Changes in depth perception can also affect your ability to judge the speed and distance of oncoming traffic adequately.

Stop Signs

- Stop at the painted stop line or before the crosswalk; if no pavement markings are present, stop just before the stop sign.
- Scan for hazards before entering the intersection by looking left, right, straight ahead, and then left again.
- If another vehicle is stopped ahead of you at the stop sign:
  - Stop where you can still see the back tires of the vehicle ahead of you.
  - When the vehicle ahead of you begins to move, count two seconds before you proceed to the stop sign.

Have you ever said, “That vehicle came out of nowhere”? If so, you may be experiencing decreased peripheral vision.

Or, how about, “That car almost crashed into my right side as I was turning left”? If yes, then you may be having a problem with depth perception.
Six Important Crash Points in an Intersection

Always keep in mind the 6 “crash points” in every two-lane intersection.

- The red vehicle is “your” vehicle as it moves through the intersection.
- The blue vehicle is the “other” vehicle moving through the intersection.
- The yellow “flash” is the point of a possible crash.

Each crash point is numbered and explained.

Crash Point 1
Vehicles coming from your left as you enter the intersection.

Crash Point 2
Vehicles coming from your right as you cross the intersection.
Crash Point 3
Vehicles coming from either the right or toward you from the opposite direction as you make a left turn.

Crash Point 4
Vehicles coming from the left as you make a right turn.

Crash Point 5
Vehicles coming from your right as they are making a right turn.

Crash Point 6
Vehicles tailgating or following too closely can fail to stop in time, causing a rear end crash.
Other Alternative Intersections

The following examples are designed to give you an overview of some common types of intersections one might encounter in various parts of the country.

Restricted Crossing U-Turn Intersection

Traffic from a smaller side road is prohibited from proceeding through a main intersection or making a left turn, and must turn right. After making the right turn, motorists should proceed in the left lane to a median U-turn to go in the desired direction.

Continuous Green T-Intersection

Similar to a standard T-intersection, but the through movement in one direction can flow continuously.

Jughandle Intersection

Ramp is provided at or between intersections for motorists to make indirect left turns and/or U-turns.
Roundabouts

Roundabouts move traffic through intersections without the aid of traffic signals. At roundabouts, vehicles travel counterclockwise around a center island, with entering traffic yielding the right-of-way to circulating traffic.

Some roundabouts have more than one lane of traffic. If there are multiple lanes, observe the signs and pavement markings to determine which lane to use before entering the roundabout. Generally, left turns should be made from the left lane or other lanes that are signed and marked as left turn lanes. If making a right turn, stay in the right lane or other lanes that are signed and marked as right turn lanes.

**Right Turns in a Roundabout**

**Moving Straight Through Roundabout**

**Left Turns in a Roundabout**

**Reverse Direction Through Roundabout**
In any type of roundabout it is important to slow down, obey traffic signs, and yield to pedestrians, bicyclists, and traffic on your left. Only enter the roundabout when there is a safe gap in the traffic. Always remember to use your right turn signal when approaching your intended exit.

Although roundabouts may be confusing at first, they result in slower speeds and fewer crashes, especially the right-angle and head-on crashes that often result in injuries or even deaths. Roundabouts also help decrease vehicle emissions and fuel use and manage traffic congestion.

**Trucks in Roundabouts**

Large vehicles need more space in a roundabout and may cross into other lanes; avoid driving next to or passing large trucks when in a roundabout.

Some roundabouts have a truck apron, or a paved area inside a roundabout for the rear wheels of large trucks to use when turning, and should never be used by cars, SUVs, or pickup trucks.

**Right-of-Way**

Right-of-way laws tell who must yield at intersections or other places where two or more vehicles, or vehicles and pedestrians, cannot all go at the same time.

Laws vary across states, so it is not a certainty that everyone is familiar with the rules in a particular area. Therefore, you must always watch for those who fail to yield and be prepared to take action to avoid a crash.

*Thirty-five percent of traffic citations for drivers age 55+ are issued for failure to yield the right-of-way.*

*As a general rule, remember that right-of-way is something you give, not something you take.*
Roadway Design Safety Features

Rumble Strip

- A rumble strip is a safety feature on some roads that alerts drivers whose vehicles may be leaving the roadway or crossing over into the opposing lane.

- Rumble strips may be raised strips or grooves in the pavement. When tires pass over a rumble strip they create a noise and vibration that continues until the vehicle is brought back into the lane of travel.

- Rumble strips are sometimes installed across the roadway to alert drivers of special conditions, such as lowered speed zones.

Speed Bumps

- Speed bumps in the roadway are designed to reduce speeds, usually in residential areas and parking lots.

- Drivers should slow down before rolling over them so that vehicles are not damaged.
Railroad Grade Crossings

- Trains can be on any track, at any time, going in either direction.

- Always yield the right-of-way to the train. The train cannot yield to you.

- Never ignore warnings at crossings such as:
  - advance warning signs;
  - railroad crossbuck signs; and
  - red flashing lights and gates.

- Trains can arrive at a crossing faster than you anticipate.

- Look both ways and listen when you see advance warning signs indicating a railroad crossing.

- Before starting across the tracks, be sure there is room to clear them.

A motorist is almost 20 times more likely to die in a crash involving a train than in a collision involving another motor vehicle.
Important Driving Skills

There are general habits and skills you should use, regardless of the situation. Be aware of your surroundings and stay alert. Expect the unexpected. A defensive driving mindset can prove valuable. The techniques listed below can be applied continually when driving.

Scanning

Scanning is a way to view the “total traffic scene” as you drive. It prevents tunnel vision, which can isolate you from what is going on in the distance as well as all around your vehicle. Scanning helps drivers remain alert and be prepared for hazards or traffic conflicts ahead.

The elements of scanning are:

- Looking at least a block ahead (city driving) or a quarter mile ahead (suburban or rural driving);
- Glancing slightly to the left and right of the roadway to look for approaching danger from cross streets, or animals, or children darting into the roadway;
- Checking your rearview and side view mirrors every 5 to 8 seconds; and
- Turning to look over either shoulder to check your blind spots, especially before changing lanes.
Safe Following Distance and Space Cushions

Maintain at least a 3-second following distance to help avoid dangerous situations.

1. Locate a fixed point ahead. It can be an overpass, a utility pole, or a shadow across the road.

2. When the vehicle ahead of you passes that fixed point, count to yourself, “one thousand one (1001), one thousand two (1002), one thousand three (1003).” If your vehicle passes the same fixed point when you say “1003,” then you have a 3-second safe following distance.

3. If your vehicle arrives at the fixed point before you reach the count of 1003, you are too close. Slow down slightly and increase the distance between you and the vehicle ahead.

4. Recheck against a new fixed point after you have increased your distance. You should be able to finish the count of “one thousand one (1001), one thousand two (1002), one thousand three (1003)” before you reach that fixed point.

The 3-Second Following Distance Rule

- The 3-second following distance applies to dry roads at any speed.

- Add an additional second when it is raining.

- Add an additional 2 or 3 seconds for torrential rain and thunderstorms, snow or icy conditions, fog, or dust storms.

CAUTION
Do not focus so intently on the fixed point that you fail to observe the total traffic scene.

In some states, different following distances are suggested. In this course, we recommend at least 3 seconds.

In my state, _________ is the recommended following distance.
Stopping Distance

Your stopping distance is the sum of reaction time (the distance needed to react and press on the brake) and braking distance. Reaction time is how long it takes the driver to perceive a hazard, decide on a response, and then react. Braking distance is the distance a vehicle will travel after its brakes are fully applied and comes to a full stop. It is based on things such as weight of the vehicle, speed, tire condition, and roadway characteristics.

Note that speed and stopping distance are directly related. The faster you go, the longer it will take you to stop in case of an emergency. This graph shows the relationship between various speeds and how far it takes an average vehicle to come to a complete stop.
Keep a “Space Cushion” Around Your Vehicle

A space cushion is a buffer around your vehicle that you maintain to allow room to maneuver, if necessary. Know what is in your space cushion, scan frequently, and maintain awareness of other vehicles.

• Keep at least a 3-second following distance in front of you; 4 or 5 seconds in inclement weather.

• If another vehicle is tailgating behind you, use your turn signal and change lanes, as soon as it is safe to do so.

• If a driver near you is driving erratically or aggressively, put distance between you and the other driver by slowing down or changing lanes.

This extra space will help you move or maneuver in case of an emergency or hazardous situation. If you do not have an adequate space cushion on all sides, you must be extra alert. When driving in congested traffic conditions, try to maintain a space cushion in the front and on at least one side. When traffic thins out, you can reestablish the space cushion all around your vehicle.
How to Avoid Distractions

Concentrate on the Driving Task

Driving is a demanding activity that requires your full attention to many things at the same time.

- Do not be distracted by things outside your vehicle that are not directly related to the driving task.

- Eliminate distractions inside the vehicle, and minimize activities that require you to take your eyes off the road, especially in heavy traffic.

Do not use your cell phone while driving:

- Do not send or read text messages while driving.

- Make outgoing calls only when you are at your destination or parked.

- Use your voice mail for incoming calls or let a passenger talk for you.

- Put your cell phone on “silent” so that you are not tempted to answer it while driving.

- Remember, research shows that even talking on a “hands-free” cell phone involves concentrating on the conversation at hand, often at the expense of the driving task.

To reduce distraction, try the following:

- Pre-set your favorite radio stations.

- Load your favorite CD before you start driving.

- Refrain from eating, drinking, and smoking.

- Make sure passengers and pets are properly restrained before starting the engine.

- Know your route before starting out, so that you do not need to consult a map or directions during the trip.

- Set up your GPS-based navigation device and adjust the volume control.

- Manage passenger conversation to keep it from being distracting.
Are You a SMART Driver?

If you are an experienced driver, it has probably been a few years since you learned to drive and tested for your license. Yet vehicles, traffic rules, and the very roads we drive on are constantly changing.

Be a SMART driver, and use these 5 tips to stay safe on today’s increasingly challenging roadways.

- **Seat Belts Save Lives.** According to NHTSA, properly worn seat belts reduce the risk of fatal injury to front-seat passenger occupants by 45 percent.

- **Medications and Driving.** To help avoid drug-impaired driving, talk to your doctor or pharmacist about your medications and be aware of how your body feels or reacts to the drugs and supplements you are taking.

- **Adverse Weather Tip.** It is important to always be mindful while driving, but especially in limited visibility conditions like rain, snow, and fog. Turn on your headlights (not your high beams), and make sure there is plenty of distance between you and the vehicle ahead of you.

- **Right-of-Way.** Failure to yield the proper right-of-way is the most common traffic violation in crashes involving older drivers. Other common traffic violations that cause crashes involve making an improper left turn, making an improper lane change, and ignoring a stop sign or traffic light. Be extra cautious at intersections, while merging, and around pedestrian walkways.

- **Three-Second Following Distance.** A 3-second following distance (or more!) will help you spot possible driving hazards and give you time to react.
Unit 3 Knowledge Check

Read the sentences and choose the answer that best fits.

1. To ensure your vehicle’s readiness, you should _____.
   a. check your tires
   b. check your fluid levels
   c. check the weather conditions
   d. all of the above

2. When entering a roundabout, _____ traffic already in the roundabout.
   a. stop for
   b. yield to
   c. slow down for
   d. speed into

3. What counts as a distraction on the road while driving?
   a. texting
   b. making calls
   c. eating/drinking
   d. all of the above

4. A space cushion is defined as a ____ around your vehicle where you maintain room to maneuver if necessary.
   a. buffer
   b. road
   c. blind spot
   d. following distance

5. A seat belt is enough to totally protect a driver in case of an impact.  True  False

6. So that your airbag can deploy safely, you should keep at least 10 inches between your chest and the center of the steering wheel.  True  False

7. When using your Anti-Lock Brakes (ABS) you should take your foot off the brake if you feel any vibrations or strange noises.  True  False

8. Proper mirror adjustment can help to reduce blind spots on both sides of your vehicle.  True  False

For more information on anything you have learned in this course, go to www.aarp.org/drc.
Introduction

This Unit provides an overview of strategies to address key situations that can be challenging for any driver, but especially for older drivers.

This Unit focuses on driving situations that frequently occur, are dangerous, and could potentially be fatal if not addressed appropriately. We will also examine strategies for some emergency situations that might be rare but are still extremely dangerous.

GOALS

Review best practices for safe driving.
Examine driving situations that statistics show to be dangerous.
Discuss how to react safely to those kinds of situations.
Fundamental Driving Strategies

Key Driving Strategies

Here are some of the most fundamental safe driving strategies:

- **Take good care of your vehicle.** Maintain your vehicle in good working condition, regularly checking the tires (condition and inflation), brakes, and suspension. Clean all windows inside and outside.

- **Drive when you are emotionally and physically fit to do so.** Monitor your emotions, medications, and alcohol use. Certain drugs, combinations of drugs, or even small amounts of alcohol can impair the skills you need to drive safely. Impaired driving has been linked to increases in crash risk.

- **Pay attention.** Primary causes of traffic collisions are inattention and distraction.

- **Use all the safety equipment you can, including proper restraints for the driver and all passengers.** The use of seat belts alone typically cuts the rates of injury and death in traffic collisions by about 45 percent.

- **Do not drive faster than the posted speed limits; drive even slower when conditions dictate.** Driving at a speed higher than what is safe for various conditions leaves you with less reaction time and braking distance than you may need to avoid a crash. Speeding also increases the risk of serious injury in a crash.

- **Observe and obey all traffic control laws.** Just as you expect other drivers to follow the rules, they expect you to do so too. Another driver may not be able to stop in time for you if you fail to observe and obey traffic regulations, signs, and signals.

- **Be ready to react to unexpected situations.** Rear-end collisions are very common at intersections. Avoid them by maintaining a safe following distance.

Typical Problem Situations

- Making left turns at intersections, especially where there is no traffic signal.
- Yielding the right-of-way.
- Merging into another traffic lane.
- Driving on a high speed roadway.
- Driving at dusk or at dawn.
- Driving while distracted.
Speed Management

Speed-related crashes cause more than 10,000 deaths a year, which is nearly a third of all crash-related fatalities in this country. Your speed of travel is one of the key items fully under your control. Do not drive faster than the speed limit, even if other drivers are exceeding it.

Which driver is at greater risk?

Higher speeds result in more crashes and are more likely to be fatal.

- A vehicle at a high speed travels a longer distance in the split second it takes to react to an emergency.
- The faster the vehicle is going, the farther it will travel before coming to a stop after you apply the brakes.
- At high speeds, crashes are deadlier, because the energy involved in stopping increases as speed rises.
- At high speeds, the vehicle’s structure may not hold up, and airbags and seat belts may not be able to do their job.

Driving at higher speeds can result in:
- an increase in likelihood of a crash
- a decrease in the odds of surviving one
Strategies to Use in Difficult Situations

Turns at Intersections

Left turns are one of the most dangerous situations for drivers, and for older drivers in particular. Twenty-five percent of traffic violations are due to improper left turns, and left-turn situations have some of the highest crash rates for older adults. There are many types of left-turn situations, for example there are single, double, and triple turn lanes; signalized and unsignalized left turns; and left turns out of a dedicated turn lane.

General Right- and Left-Turn Strategies

• Always use your turn signal. Signal your intention far enough in advance; you should signal before braking. Your state laws will tell you how soon to use your turn signal before making a turn.

• Position your vehicle in the proper lane for turning.

• Reduce your speed as you approach the intersection.

• Check the traffic ahead of you, behind you, and to your left and right on the cross street.

• Look ahead in the direction of the turn. Scan for pedestrians and bicyclists. Turn into the nearest lane of traffic going in your direction, or into the proper lane as indicated by traffic signs and lane markings.

• Pedestrians always have priority at crosswalks and intersections, even when unmarked.

Specific Left-Turn Strategies

• Whenever possible, try to use intersections that have a signal with a green left-turn arrow (protected left turn). When the left-turn arrow is no longer green, you must yield to all oncoming vehicles.

• Position your vehicle in the proper lane for turning. For a left turn, be in the lane closest to the centerline.

• On city streets, rather than making a left turn, consider going to the next intersection, then make three right turns. This may take longer, but you will avoid the left turn altogether and reduce your chances of a crash.

State-Specific Information
Passing

- Do not pass if it is not necessary. If you need to pass, be sure that the road ahead is clear.
- Do not pass if there is a solid white or yellow line on your side of the centerline or if there are double yellow lines.
- Check for approaching vehicles that may be close or another vehicle attempting to overtake you.

Do not pass if there is a sign indicating a no-passing zone, you are approaching a curve or top of a hill, or if you are within 100 feet of or already in an intersection.

Use the following passing process:

- Signal your intentions;
- Mirrors should be scanned;
- Over the shoulder, check blind spots; and
- Go, proceed with the pass.

Before returning to the right lane, activate your right turn signal and check your mirror to ensure that you have adequate clearance. If your rearview mirror is properly adjusted, you should see the headlights of the car you are passing in your rearview mirror. Gradually re-enter the right lane, and maintain your passing speed. Turn off your right-hand turn signal.

Right-of-Way and Merging

Statistics show that older drivers are often cited for driving errors associated with right-of-way and merging. In some respects, merging can be considered to be a special case of right-of-way.

Right-of-Way

Right-of-way refers to a set of rules governing how individuals and their vehicles should interact in situations where they might come into conflict (or, who should let the other person go first). These rules specify who has first priority to use the conflicting part of the road and who has to wait until the other does so. While most of these rules are well known and generally followed, they may vary from state to state. Be prepared to yield the right-of-way if someone else demands it. There is no point in being “dead right.”

Thirty-five percent of traffic citations for drivers age 55+ are issued for failure to yield the right-of-way, so this is a subject that deserves careful attention. Here are the general rules for right-of-way at four-way stops:

- Whichever vehicle arrives first at the stop has priority.
- If two vehicles stop at the same time, priority is given to the vehicle on the right.
- If an intersection is congested, or if the traffic signals are not working, all vehicles should treat it as a four-way stop.
Merging

Merging—entering one roadway from another—can be a tricky or high-risk maneuver, especially in high-traffic situations. It is a source of anxiety for many drivers, but it is a skill that most of us need to use for highway driving.

TIPS FOR MERGING INTO TRAFFIC SAFELY

1. Prepare well in advance. Look around you, in front, behind, and in other traffic lanes.
2. Use your turn signal to let the drivers around you know your intentions.
3. Identify a safe gap that you can merge into.
4. While in the merge lane, adjust your speed to match the speeds of the other vehicles.
5. Check your blind spots to make sure that you still have space to merge into the lane.
6. When there is enough space for you on the highway, merge into that space, bringing your vehicle up to highway speed as quickly as possible, and turn off your turn signal.

If no merge lane exists, signal, identify a gap, and merge, bringing your vehicle up to highway speed as soon as possible.

Remember these cautions about merging:

- Make sure you are going fast enough to merge safely.
- Do not stop before merging into highway traffic unless it is absolutely necessary.
- You must yield to highway traffic.
- If you need to cross several highway lanes, cross them one at a time. Remember to use your turn signal.
- Always keep an eye on how much of the merge lane remains. Merge lanes, even on the same highway, can vary greatly in length.
Highway Driving

The high speeds of controlled-access highways and the density of traffic on them require a special set of driving strategies.

1 Merging

If you accelerate quickly to a proper merge speed, you can merge and safely enter the flow of traffic.

2 Others Merging

Change lanes or adjust your speed to allow others to enter the highway safely.

3 Blind Spots

Stay out of other drivers’ blind spots.

4 Passing

Use the right lane for entering and exiting the traffic flow. The left lane on highways is for passing. Do not frustrate other drivers behind you by staying in the left lane if you are not passing.

5 Lane Changes

Avoid unnecessary lane changes. Check your blind spots by looking over your shoulder before changing lanes. Always use turn signals.

6 Blending with Traffic

Blend your speed with the traffic as much as possible without exceeding the speed limit. If you are uncomfortable driving at higher speeds, find an alternate route.
7 Stopped Vehicles
Give pedestrians and stopped vehicles, including police and emergency vehicles, a wide berth for their safety, moving over a lane when possible.

8 Backing Up
It is illegal to back up on a highway and you may not cross a median. If you miss an exit or need to go back for some reason, do not back up. Proceed to the next exit and then double back.

9 Emergencies
Do not stop on a highway unless you have an emergency. Pull over as far as you can to the shoulder and be sure to turn on your emergency flashers.

10 Emergency Vehicles
Move to the right as far as possible to let an approaching emergency vehicle pass you on the left. Do not come to a complete stop as you would on other roads.
Back Up

The risks are high for collisions when backing up your vehicle. If you need to back up, follow these steps:

- Take special care to check all around your vehicle for people walking, other vehicles backing up behind you, and any other obstructions. Check carefully for children and pets.
- If you are backing straight or to the right, place your left hand on the top of the steering wheel, turn your body to the right, and look over your right shoulder out the rear window. If you are backing to the left, place your right hand on top of the steering wheel, turn your body to the left, and look over your left shoulder. Do not just depend on your mirrors.
- If your vehicle is parked between two SUVs or trucks blocking your view, back up slowly, checking for pedestrians and other vehicles. Tapping your brake pedal as you back out may increase your ability to be seen by others.
- Back up slowly and continually check the rear and sides.

Parking lots can be a particular challenge when backing up. Whenever possible, park away from entrances, exits, and other cars.

Aggressive Drivers

According to the National Highway Traffic Safety Administration, an aggressive driver is an individual who commits a combination of moving traffic offenses so as to endanger other persons or property. Road rage occurs when a traffic incident escalates into a far more serious situation. If you encounter an aggressive driver:

- Make every attempt to get out of the way.
- Do not challenge such drivers by speeding up or attempting to hold your own in your travel lane.
- Ignore gestures and do not return them; avoid eye contact.
- If you feel you are in danger, get to a safe place and call 9-1-1.
Challenging Conditions

There are many situations during which your driving visibility will be challenged or compromised, such as driving in the rain or fog or driving at night. A general rule of thumb is that if you do not have good visibility, safely pull over until visibility improves or avoid driving altogether. If you find you must drive during times of low visibility, you need to know how to deal with these challenging driving and weather conditions when you encounter them. The following strategies will help you to be a safe driver.

Rain

As soon as it begins to rain, adjust your speed, disengage cruise control (if engaged), and increase your following distance to match the current road conditions. Recognize that you are driving under poor conditions and adjust your driving behavior accordingly. Many drivers will not adjust their driving in hazardous conditions.

A good strategy for rain and other challenging conditions is to always use your headlights. In some states, the use of headlights during certain challenging conditions may be required.

Many drivers do not understand the danger of wet roads. Roads become very slippery in the first few minutes of rain as the rain mixes with the oil and dirt on the road, creating a slippery surface. It takes about 30 minutes of steady rain to wash the oil and dirt off the road. Rain-slicked roads decrease your braking ability, so it takes you much farther to stop than on dry roads.

Another rain-related danger is hydroplaning. It can occur during heavy rainfall and happens when the tread “channels” on your tire cannot handle all the water between your tire and the road. The tires are forced to ride on top of the water on the road, which means they do not touch the road surface and thus have no traction. You can think of this as skidding forward. Hydroplaning occurs when you are driving too fast on roads covered with water.

When hydroplaning, the vehicle keeps moving in whatever direction it was moving originally. You will not be able to steer while the vehicle is hydroplaning. If you find yourself hydroplaning, take your foot off the gas pedal, slow down so that your tires can make contact with the road again.
Snow, Sleet, Ice, and Hail

Snow, sleet, ice, and hail are extremely treacherous and should be treated with great caution. Each storm is different and road conditions will change, making it difficult to drive in these conditions. The rule of thumb is to adjust your speed to match the current driving conditions and increase your following distance.

TIPS FOR DRIVING DURING SNOW, SLEET, ICE, AND HAIL

- Bridges freeze before roads. This occurs because a bridge is in contact with freezing air from all sides. A road is in contact only with the air above it.
- Be cautious, you never know if there is a sheet of ice underneath the snow.
- Drive in the tire tracks of other vehicles as there will be more traction in these areas.
- Be careful when changing lanes. The area between lanes may have a buildup of crunchy ice which should be avoided. If you must change lanes, do so gradually while holding the steering wheel firmly.
- All snow is different, so testing is necessary. When you first get on the road, test your brakes before you need to use them to gauge how they react to the conditions.
- Beware of “black ice.” It is ice that forms with almost no air bubbles which makes the ice transparent and appears the same color as the road surface. On asphalt or dark-colored roads, this ice appears black. Black ice is extremely dangerous because it is so difficult to see. The only way you will know if you have hit a patch of black ice is that you will start sliding. Take your foot off the gas pedal and do not step on the brake; continue driving straight. Hopefully, the patch will end soon and you will be back in control on the road again.
- Stay in the right lane. There is no need to drive quickly in snowy or icy conditions.

CAUTION

If at all possible, do not drive under these conditions.
**Fog**

If possible, avoid driving in heavy fog. If you must drive in fog, make sure that you follow these safety practices:

- Turn off your high beams and turn on your fog lights (if available). Your high beams will actually reflect off the fog and bounce back into your eyes.
- Slow down and increase your following distance.
- Since your vision is obscured, use your ears. Turn off the radio and roll down your windows and listen for vehicles braking, spinning out, or crashing.
- Tap your brakes prior to braking to alert the driver behind you.
- Stay in the far right lane and limit passing.

**Glare**

Deal with headlight glare by focusing your eyes slightly down and to the right. One of the purposes of the right-side white stripe outlining the right edge of the road is to provide drivers with a reference line to keep their vehicles aligned with the roadway in poor visibility situations like glare.

- Use the right-side line to keep your vehicle on the road, but stay aware of approaching vehicles by using your peripheral vision.
- Remember to use sunglasses for daytime glare situations or have anti-reflective coatings added to your eyeglasses to reduce glare and improve night vision.

**Smoke**

Large forest or range fires, even controlled ones, can spread quickly and so can the smoke. Smaller fires, like car or house fires, may be passable, but use extreme caution. If you come across smoke while driving, you should:

- Slow down and assess the situation.
- Close all windows and vents.
- Turn on your headlights.
- Watch out for emergency vehicles and personnel.

You should never drive into smoke if you cannot see past it! Alter your route to get away from the smoke.
Emergency Situations

Skids

Skids happen when the tires lose their grip on the road. Skids can be caused by these driver errors:

- **Over-braking**: Braking too hard and locking up the wheels. Skids can also occur when the road is slippery.
- **Over-steering**: Turning the wheels more sharply than the vehicle can turn.
- **Over-accelerating**: Supplying too much power to the drive wheels, causing them to spin.
- **Driving too fast**: Most serious skids result from driving too fast for road conditions. Drivers who adjust their driving to conditions do not over-accelerate and do not have to over-brake or over-steer from too much speed.

One of the best ways to avoid trouble (not just skids) on the road is to drive smoothly. Plan ahead, watch carefully, and slow down, especially if you are unfamiliar with the road. Most skids occur when conditions are slippery.

If you find yourself in a skid, take your feet off the pedals. Stop braking and stop accelerating. Then, quickly turn the steering wheel in the direction you want to go. As your vehicle turns back in the correct direction, you will probably then need to steer in the opposite direction to stop the turning and stay on your desired path.
Roadway Departure Crashes

Roadway departure crashes—crashes that occur after a vehicle crosses an edge line or a centerline and leaves the roadway—are frequently severe. Many single-vehicle roadway departure crashes result in serious injuries and fatalities, since most occur at high speeds.

A vehicle moving at a high speed has a significant amount of momentum. If it stops very suddenly by hitting a fixed object, such as a tree, the result is usually a serious injury or fatality. A vehicle that rolls over after a high speed roadway departure can cause significant injury to the driver and passengers, even if the vehicle does not hit another object. However, hitting a bush or minor objects on the roadside rather than a tree or fixed object could reduce injuries and damages.

Whenever a vehicle departs from its lane or runs off the road, it is mostly due to driver error. Typical factors contributing to driver error include:

- speeding on a sharp curve or a steep grade.
- distraction.
- drowsiness.
- not paying attention.
- intoxication.
- fatigue.
- poor nighttime visibility.

The best way to avoid a roadway departure is to always be alert, attentive, and clear-headed when driving and to conduct periodic inspection and maintenance of your vehicle.

Sometimes when a driver is surprised by the unexpected—an animal running across the road or another vehicle merging into the same lane without a signal—a typical reflex action occurs, and the driver makes an attempt to remedy the situation quickly by jerking the wheel in the opposite direction. This reaction causes the vehicle to suddenly pull to the other side, often sending the vehicle across the roadway or causing it to roll. Instead, if your vehicle leaves the road, you should follow these guidelines:

- Do not panic!
- Slow down by easing off the gas pedal.
- Slowly apply the brakes.
- Bring the vehicle to a stop and then try to get back on the road afterwards.

(See Crash Reporting on page 116 in the Unit 4 section of the Appendix.)
Head-On Crashes

Head-on crashes—crashes in which the fronts of two vehicles collide—are some of the most dangerous types of collisions because they are often fatal. Most head-on crashes are likely to result from a motorist falling asleep, being distracted, or traveling too fast in a curve. There may be other contributing factors, such as alcohol use or speeding.

If an oncoming vehicle veers into your lane for any reason, slow down immediately and blow your horn. Be prepared to get out of the way, drive off the road, or stop.

SAFE STRATEGY REMINDERS

• Drive only when you are alert and sober.
• Use your seat belt.
• Avoid, whenever possible, driving in challenging weather or road conditions.
• Scan the road ahead for hazards. Anticipate where problems might occur.

• Stay well centered in your lane, where oncoming traffic is less likely to stray, and where you can get to the shoulder or side of the road more quickly. On multi-lane roads, the right lane is the safest lane.
• Obey speed limits. You will have more time to react to a hazard and, should a collision occur, it will not be as damaging at a lower speed.
Collisions with Deer and Other Animals

Collisions with animals are a serious problem across the United States. The Insurance Information Institute estimates that there are more than 1.6 million vehicle collisions with deer each year, resulting in over $4.6 billion in vehicle damage, medical costs, and other expenses. Knowing the following information about animal collisions can help you reduce your risk.

• If an animal jumps out in front of you, do not swerve, but brake quickly.

• In most cases, hitting the animal will cause less damage than hitting another vehicle or a tree.

• Be especially alert at dusk and dawn when visibility can be reduced; 90% of collisions with animals occur at these times.

• Deer activity peaks from October to December; nearly half of deer collisions happen during these months.

• Wooded areas are likely crossing spots for animals and many, like deer, travel together, so expect more than one animal to cross the road.

• Call local law enforcement if you have a collision with an animal; some states have reporting requirements.
Breakdowns

If you experience vehicle problems while driving, your first priority is to pull off to a safe location away from the flow of traffic. Take your foot off the gas pedal. Do not brake hard or suddenly. Once off the road, make your vehicle visible. Put reflectorized triangles behind your vehicle to alert other drivers; use your emergency flashers. If it is dark, turn on the interior dome light. When you are safe, you can call your road service provider.

If you have a flat tire, do not attempt to change it unless you can get to the side of the road, and the tire is on the side of the vehicle that is safely away from traffic. Remember, safety must take precedence over your schedule or other concerns you may have. (See Emergency Road Kit on page 117 in the Unit 4 section of the Appendix.)

Turn on your hazard lights.

This warns other drivers that something is wrong. Keep your hazard lights on until your vehicle is safely towed.

Pull over (if the vehicle is still moving).

In an ideal situation, you will want to aim for the right shoulder of the road. If you find yourself on a road that does not have a safe place to pull into, put on your turn signal and try to get off the right lane as quickly as possible. Pulling into the left-hand shoulder is a last resort. If you are driving on residential streets, try to pull into a free parking spot or parking lot if one is nearby.

Turn your wheel to prevent rolling and put on the emergency brake.

Turning your wheel to the right if you are facing downhill or to the left if you are facing uphill will limit your vehicle from rolling very far if you are stuck on a hill.

Triple-check before getting out of the vehicle.

Make sure it is safe to get out of your vehicle, especially on a busy highway. If you feel you would be safer in the vehicle, go with your instincts and stay inside with your seat belt on. If you made it to the right-hand side of the road, get out through the passenger-side door. If your engine is smoking or you see flames, get out of your vehicle as quickly as you can.
Call for help.
If you have a roadside assistance provider, give them a call. If you do not, call for a tow truck or call 9-1-1 if you need further assistance.

Set up your flares or triangles if you have them.
As long as it is safe to do so, put flares or reflective triangles behind your vehicle as follows: one near your vehicle, usually about 10 feet behind it, and the other one farther away.

Wait for help.
If you are driving alone at night, be careful about accepting help from strangers and stay inside your car if you can. Make sure your doors are locked and your windows are up.
Shrinking the Road with Others

Trucks, Buses, and Recreational Vehicles (RVs)

Trucks, buses, and RVs can pose special hazards, because they are significantly larger and heavier than other vehicles. While bus and truck drivers are experienced professional operators, other drivers may not recognize the importance of special considerations in sharing roads with these large vehicles.

Drivers of large commercial vehicles like trucks and buses need you to be aware of their unique circumstances:

- **Give them plenty of room.** Trucks and buses cannot maneuver quickly. A commercial driver is trained to leave plenty of space around the truck or bus. In our smaller vehicles, we often see this space as a convenient avenue to a lane change. Do not cut in front too soon after passing a truck or bus. You should not pull back in until you see both of the truck’s headlights in your rearview mirror.

- **Do not follow closely.** If you are too close behind the truck, bus, or RV, the driver probably cannot see you. You also cannot see the road in front of the driver. Leave yourself extra following distance, so you have more time to react and a better view of the road ahead.

- **Watch for the commercial driver’s signals.** Trucks and buses make wide turns. A collision may occur when a truck or bus swings left to make a wide right turn, and an unaware driver tries to pass on the right as the bigger vehicle starts to swing right again.

- **Beware of no-zones.** Places where a truck driver cannot see you are referred to as “no-zones.” No-zones are immediately in front of trucks, in back of trucks, and to the side of trucks. If you cannot see the truck or bus driver in their side view mirror, the driver cannot see you.
School Buses

Give yourself extra time if you need to drive through a school zone.

- Adjust your route to avoid school zones.
- **Slow down!** Speed limits in school zones tend to be 5 to 10 miles per hour below the normal posted speed.
- **Stop for buses.** Passing a stopped school bus with its red lights flashing and/or stop arm extended is against the law, so do not do it.
- **Watch for pedestrians.** Be cautious and prepared. Look for pedestrians, especially on sidewalks, around driveways, intersections, and residential neighborhoods.

State-Specific Information

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Emergency Vehicles

Emergency vehicles include police vehicles (marked and unmarked cars), ambulance/emergency medical services (EMS) vehicles, and fire trucks.

If you hear a siren or see flashing lights, and an emergency vehicle is approaching you:

- **From behind:** Be ready to safely move out of the way (generally to the right, but this will depend on the particular roadway).
- **From a cross street or toward you:** Be prepared to stop and let the vehicle cross in front of you or make its turn.

If uncertain about where to move over, follow the pattern of the cars around you to create a travel lane for the emergency vehicle to pass. Slow down or stop as required by state law.

When approaching an emergency vehicle with flashing lights that is stopped, proceed with caution, move over a lane when possible, and adhere to your state’s regulations.

State-Specific Information
Motorcycles

Many drivers are not aware of how to safely share roads with motorcycles. The vast majority of vehicle versus motorcycle crashes happen in intersections. Before making a left turn, be sure traffic is clear, and then look again for motorcycles. Vehicles turning in front of motorcycles is the number one cause of fatal accidents for motorcyclists.

Because of road conditions, including potholes, dead animals, and road debris, motorcyclists often need to weave within their lane from side to side. Give them as much room as possible.

Remember that motorcyclists have little personal protection other than helmets and the clothes they are wearing, so please help protect them.

### TIPS FOR SHARING THE ROAD WITH MOTORCYCLES

- Motorcycles have use of the complete traffic lane. Do not share lanes with motorcycles.

- Failure to yield the right-of-way to a motorcyclist is the most frequent driver error in collisions involving a motorcycle and another vehicle.

- Often drivers do not see motorcyclists until it is too late. This is why it is important for drivers to continually scan the roadway in front, to the rear, and to the sides.

- Motorcycles accelerate, turn, and stop more quickly than other vehicles. Bad weather, rough road surface, or inexperience may cause a motorcyclist to fall. All of these are reasons why you should increase your following distance to 4 seconds or more when behind motorcycles.
Many drivers do not think about bicycles and often do not see them. Watch for bikes and be wary in places where bicyclists might be traveling. Especially around intersections, there is potential for conflict with bikes. Watch out for bicyclists who ignore traffic signals, make turns on the roadway, or change lanes erratically.

Bicyclists can legally ride on the roadway, but should remain near the right edge. Avoid sharing a traffic lane with a bicyclist, even if the laws in your state allow you to do so.

Remember: Allow plenty of room when passing a bicyclist and pass only when safe to do so, keeping aware of traffic approaching from the other direction! If there is no room to pass safely, then your only option is to follow them at a safe distance until it is safe to pass.

**TIPS FOR SHARING THE ROAD WITH BICYCLES**

- Do not tap your horn—it may startle a bicyclist.
- Some bicyclists are children who are not aware of all the traffic laws and are often inexperienced riders, so watch for children on bicycles.
- Watch carefully when making a right turn to be sure that there is no bicyclist riding near you on the right side of the road.
- Look behind you and to the side for bicyclists before you open a car door.

Use common sense, always be courteous, and drive responsibly so that we do not cause increased danger or harm.
Pedestrians may assume that, because they can see your vehicle, you can see them and will stop. Check the roadway carefully for pedestrians, especially at intersections, since they may cross the street thinking that you will stop.

- Always look for pedestrians crossing your intended route.
- Do not pass a vehicle that has stopped to allow pedestrians to cross the road.
- When making turns, it is easy for a pedestrian to be hidden by the corner posts between your windshield and side windows. This is a pedestrian blind spot. Use scanning and turn your head to see around these areas framing your windshield.
- In cities, be sure to watch for pedestrians, especially children, darting out mid-block from between parked vehicles.
- Look for pedestrian crossing signals and signs which require vehicles to stop mid-block for pedestrian crosswalks.

- At a stop light, check to make sure no pedestrians are crossing in your path before you proceed.
- Be especially alert for pedestrians and children when backing out of driveways or parking spaces.
What Strategies Apply?

Unit 4 Knowledge Check

Read the sentences and choose the answer that best fits.

1. What is not one of the key fundamental safe driving strategies covered in this unit?
   a. Do not drive faster than the posted speed limit or current conditions warrant
   b. Be ready to react to unexpected situations
   c. Speed to get to your destination quickly
   d. Use all available safety equipment you can

2. What should you do when trying to make a left turn?
   a. Use extra caution
   b. Reduce your speed
   c. Try to turn left only at signalized intersections
   d. All of the above

3. When sharing the road with other vehicles, a general strategy is to ____________.
   a. give the vehicle plenty of room
   b. speed up to pass them
   c. share traffic lanes
   d. go slower than the flow of traffic

4. When driving too fast in the rain, water can get between your tires and the road causing you to lose traction and ____________.
   a. slow down
   b. hydroplane
   c. have a tire blow-out
   d. tailgate

5. Your speed of travel is one of the key items fully under your control. True   False

6. If the traffic signals are not working at an intersection, treat it as a four-way stop. True   False

7. If a deer jumps in front of your vehicle, you should swerve to avoid hitting it. True   False

8. Passing a stopped school bus with its red lights flashing is against the law. True   False

For more information on anything you have learned in this course, go to www.aarp.org/drc.
5 What About the Future?

Introduction

We are going to take another look at our course theme—things change. We change, vehicles change, and roads change.

How can we continue to drive safely for as long as possible?
How do we know when it is time to limit or stop driving?
How do we still get around if we decide to limit or stop driving?

Some of the information in this Unit applies to us or people we may know.

Review the warning signs of unsafe driving.

Recognize the importance and benefits of assessing our driving skills periodically.

Recognize the importance of staying mobile even if not driving.

Review how to develop a plan for using other transportation options.
Driving Problems

Do you know anyone who has problems driving or who has stopped driving? What led you to think that he or she had a problem driving?

Warning Signs of Unsafe Driving

The following warning signs can indicate a physical and/or memory problem that is beginning to affect someone’s driving abilities.

Physical Capabilities

- Not being able to see or hear what is going on outside the car.
- Trouble moving foot from gas pedal to brake pedal.
- Difficulty turning head when backing up.
- Delayed responses to unexpected situations.

Cognitive Capabilities

- Decrease in confidence while driving.
- Needs someone else to tell him or her how to drive.
- Getting lost in familiar places.
- Becoming easily distracted while driving.
- Getting confused at intersections, entrance or exit ramps, or roundabouts.
- Inability to adapt to new situations.
- Failing to recognize dangerous situations.

Poor Driving Skills

- Not using turn signals correctly or not using them at all.
- Having trouble making turns.
- Having difficulty moving into or maintaining the correct lane of traffic.
- Having trouble judging the space between vehicles in traffic on highway entrance or exit ramps.
- Parking inappropriately.
- Hitting curbs when making right turns or backing up.
- Unpredictable stopping in traffic.
- Driving too slowly; other drivers often honk horns.
- Failing to stop at stop signs or stop lights.
- Failing to notice important activity on the side of the road.
Undesirable Behaviors

- Driving too fast or too slow for road conditions.
- Becoming more agitated or irritated when driving.
- Distracted driving.
- Impaired driving.
- Not following doctor’s guidance.

Evidence of Warning Signs

- Getting scrapes or dents on car, garage, or mailbox.
- Having frequent close calls.
- Being warned or ticketed for moving violations.
- Having multiple vehicle crashes.

External Advice

- Doctors or pharmacists have advised him or her that certain medications might affect the capacity to drive.
- Friends, relatives, doctors, or other trusted sources have suggested that driving be limited or that driving cease.
Having Conversations with Someone Who Is Having Driving Problems

If you have noticed that your friends or family members show some of these warning signs, it means it is time to talk with them. Discussions about driving issues can be difficult and emotional. A conversation with him or her may need to be conducted in a sensitive and thoughtful manner.

It is useful to think of these discussions in three parts. First, how do you approach the conversations? Second, what kinds of topics or information should you discuss? Third, who is the best person to have the conversation with the driver?

HOW TO APPROACH THE CONVERSATIONS

✓ Consider the meaning of driving and its significance to the driver. For many, driving is more than just a mode of transportation; it is symbolic of his or her identity, freedom, or independence.

✓ Have conversations before driving becomes a problem.

✓ Before having the conversations, be sure you have observed the driver over time. Write down the abilities the driver still possesses.

✓ Ask the driver if a doctor has reviewed a medical condition or medications to determine if they have any effects on his or her driving.

✓ Do not just have one conversation. Have several conversations over a period of time. Be persistent and do not feel guilty about mentioning the topic multiple times.

✓ To begin the conversations, first pick someone in the family or community whom the driver knows and trusts. This is usually a spouse, an adult child, or the family doctor.

✓ Ask for the help of someone who has recently stopped driving and has found other ways to get around. You may need to ask a friend if he or she knows such a person.

If you are concerned about a loved one’s driving and need additional resources to help you plan these conversations, visit www.aarp.org/weneedtotalk.
What About the Future?

What You Could Tell Someone Who Has Driving Problems

1. **Start conversations with your concern for the person’s overall well-being** and use “I” rather than “you” messages: “I’m concerned about your safety while driving since your surgery … is there anything I can do to help until you are feeling better?” It is not good to say “You’re no longer a safe driver.”

2. **Try to let the person preserve his or her self-respect.** Listen honestly to the person’s viewpoint and reasoning and always show compassion.

3. **Be supportive of any changes the driver has already made,** such as reducing the number of trips he or she makes or limiting night driving.

4. **Explain the availability of other transportation methods** such as family, friends, neighbors, taxis, public and other transportation services, as well as their benefits (safer, less expensive, and less trouble than maintaining a car).

5. **Ask the person to consider having a formal assessment** done by an occupational therapist, who is also a trained driver rehabilitation specialist.

If a person with serious driving deficiencies does not respond to any of these efforts, you may have to report the person to the state’s department of motor vehicles as a last resort. Not all states maintain the confidentiality of those reporting. If it is important to you that your report remains confidential, first check with your state’s motor vehicle department or bureau for details.

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State-Specific Information

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www.aarp.org/drc
Assessing Your Own Driving

Driving fitness can vary from day to day. This may be the result of medications, stress, fatigue, weather conditions (and how one responds to them), time of day for a planned trip, and other factors.

You, more than any other individual or circumstance, should determine how safe you will be. You are primarily responsible for three distinct aspects of your driving safety:

- Your physical and mental readiness to drive.
- Your choices about your car’s safety features and maintenance.
- Your decisions about how, when, where, and with whom you drive.

Self-Assessing Your Skills

There are a number of ways you can test or assess your skills. Do-it-yourself programs using computer, online, or print resources are available. These publications, questionnaires, and quizzes are an important first step, which can help you determine if you need to take action to improve your skills.

Some of these self-assessment booklets and programs include checklists of driving skills and situations. In some cases, it may help to have a relative or friend ride with you and help you complete the checklist.

Judging Your Driving

How is your driving? On the next page is a quick review of some of the issues that we talked about in terms of other drivers. How often does each of these statements apply to your driving? For each statement,

- Enter a 0 if that statement never applies to your own driving.
- Enter a 1 if that statement sometimes applies to your own driving.
- Enter a 2 if that statement most of the time applies to your own driving.
## JUDGING YOUR DRIVING

<table>
<thead>
<tr>
<th>Statements About Your Own Driving</th>
<th>Never</th>
<th>Sometimes</th>
<th>Most of the Time</th>
<th>My Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>I notice that other drivers seem to be honking at me.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>I find space in traffic hard to judge.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>I find that cars suddenly appear from nowhere.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>I find drivers are stopping suddenly in front of me.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>I fail to notice red lights and traffic signs.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>I have trouble looking over my shoulder to back up or change lanes.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>I have trouble remembering to look left and right to check for traffic at intersections.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>I have trouble driving through intersections.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>I get nervous making left turns against oncoming traffic.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>I lack confidence that I am able to drive in heavy traffic.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>I lack confidence that I am able to drive at high speeds.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>I feel overwhelmed by too many road signs, signals, pavement markings, pedestrians, and other vehicles.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>I have trouble moving my foot from the gas pedal to the brake pedal or turning the steering wheel.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>I get lost on roads that should be familiar to me.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>I feel nervous, agitated, or irritated while driving.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>I need someone else to tell me how to drive.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>I have had several close calls or a near crash in the last 3 years.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>I worry that I might make a mistake and will get hurt.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>I worry that I might make a mistake and someone else will get hurt.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>My doctor advised me to limit or stop driving because of my health.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>I have had police warnings or moving violations in the last 3 years.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td></td>
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<tr>
<td>I have had fender benders in the last 3 years.</td>
<td>0</td>
<td>1</td>
<td>2</td>
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</tbody>
</table>

**Total Score (check your score on the next page)**
What About the Future?

Check your Total Score. If your Total Score is:

- **0–5** Do not be concerned at this time.
- **6–16** Do self-assessments on a regular basis.
- **17–26** Consider a formal assessment of your driving.
- **27 and above** Look for other means of travel for most or all of your trips.

Formal Driving Assessments

A comprehensive driving evaluation by a trained professional is an objective process for determining:

- Whether you have the skills and abilities to drive safely.
- What corrections (if any) are needed.
- What specific steps you can take to become a better, safer driver.
- What on-the-road training may be necessary to improve your skills.

Formal driving evaluations generally take 2 to 3 hours. They usually consist of a clinical evaluation (including a variety of cognitive, visual, and physical assessments) and an on-the-road test with oral feedback or a written report on the results. Programs may vary somewhat; some programs may also use a driving simulator as part of their evaluation process.

*There may be fees associated with some of these assessments.*
Reasons to Consider a Formal Driving Assessment

1. If you feel that your driving continues to be fine, you may appreciate getting a professional opinion to verify your confidence.

2. If you feel like you are not seeing as well as you once did, or are experiencing slowed reaction time or a loss of flexibility, you may benefit from learning how these changes could affect your driving and discover new strategies or tips to keep your driving skills sharp.

3. If you have one or more medical conditions or physical limitations that may lead to a loss of range of motion, flexibility, or strength in your arms or legs, you may benefit from an evaluation. It may also provide you with a plan for rehabilitation and/or assistive equipment, if appropriate.

4. If you have experienced a loss of peripheral vision or depth perception or have another vision-related change, a driving evaluation can help.

5. If you have been told that you should stop or limit driving—but you disagree—getting an opinion from an occupational therapist who is also a trained driving rehabilitation specialist may be beneficial. You will undergo a thorough evaluation process that takes a complete picture of your driving skills and abilities and your potential for improvement.

6. If you would like to resume driving after a period of non-driving, you could benefit from getting a driving “check-up.” For example, if you stopped driving after an illness such as a stroke, an evaluation could show you what effects, if any, the stroke had on your ability to drive safely. It could also point out strategies, rehabilitation therapies, or special equipment that could help you drive safely again.

People sometimes find that after recovery, some coaching and retraining helps prepare them to get back behind the wheel.

7. If a lifestyle change such as a recent move or an illness affects where or how much you drive, you may benefit from a driving evaluation to sharpen skills and build confidence.

8. If you have been diagnosed with dementia or Alzheimer’s disease but are in the early stages, you may not need to stop driving immediately. A comprehensive driving evaluation can determine whether you can continue to drive safely for the time being. It can also help you make plans for other ways to travel in the future.
Benefits of a Formal Driving Assessment

A formal driving assessment can provide many benefits:

- Behind-the-wheel practice to reduce or eliminate any problems or unsafe behaviors.
- Professional prescriptions and instructions for assistive equipment that can help you drive longer. These include:
  - pedal extenders;
  - panoramic rear and side view mirrors;
  - seat lifts to aid in getting into and out of the car;
  - spinner knobs for steering wheel or other hand controls; and
  - seat belt extenders.
- Flexibility exercises to keep you in good driving shape.
- Counseling and advice on how to meet your specific transportation needs if driving is found to be unsafe.

Resources for Formal Assessments

There may be several community resources available to help you conduct a more formal assessment of your driving. Your local hospital could be a good source for finding these resources:

- Occupational therapy driver rehabilitation specialists;
- Programs sponsored by your county or city office on aging;
- Veterans Administration and other rehabilitation facilities;
- Your state’s bureau or department of motor vehicles or motor vehicle administration, which may have special programs or special licensing options.
Travel Options for Mobility and Independence

There are many ways to get around besides driving. Sometimes, these other ways may be preferable to driving for certain trips, even if you are still an active driver. By becoming familiar with these travel options now, you can:

- Practice using them in your community while you still have a choice of driving or not driving;
- Have a backup plan for emergencies or when road conditions are not favorable; and
- Avoid travel difficulties or surprises later.

Assessing Your Travel Options

Where Do You Need to Go?

Think about where you need to go so you can review your travel options and plan on how to get there. Answering the questions below is the first step in making your plan.

1. Where will I be going?
2. Do I need to make multiple stops during the trip (grocery, doctor’s office, bank)?
3. How close or far are these places from a public transportation route?
4. When do I need a ride (times and dates)?
5. Will I be traveling with members of my family or friends?
6. Can I negotiate my appointment times to help make my travel easier?

(See Assessing Your Travel Options on page 118 in the Unit 5 section of the Appendix.)
Taking Charge of Your Travel

Decisions to limit or stop driving can be difficult for many people. Exploring and discussing these issues with someone you trust, before they become critical, can help. Understand that we should not stop being mobile if we stop driving; there are lots of other ways to get around.

The biggest issue is how to get from Point A to Point B, if not driving. Knowing what transportation options are available to you and planning ahead can make getting there less stressful and help you maintain your independence.

What Does It Cost to Own and Operate a Vehicle?

Most people underestimate the cost of owning a vehicle. They may count monthly payments, regular operating expenses, and maintenance, but too many people forget about other major costs like depreciation and insurance. The following expenses must be included to calculate the true yearly cost of owning a vehicle.

VEHICLE EXPENSES

- Monthly purchase payments or lease payments.
- Regular operating expenses (gasoline, parking, and tolls).
- Regular and long-term maintenance (oil changes, tune-ups, repairs, and parts).
- Insurance.
- Taxes.
- Depreciation.
- Registration or license fees.
- Inspections or emissions fees.

Of course, your own vehicle costs can vary quite a bit depending on how old the vehicle is and how many miles it is driven and under what conditions. Whether the vehicle is purchased or leased is another important factor. (See the Cost Worksheet for Owning and Operating a Vehicle on page 120 in the Unit 5 section of the Appendix.)
What Are Your Choices for Local Travel?

This section is designed to help you identify available transportation alternatives in your area.

Do you sometimes want to take trips that do not involve driving? Are you thinking about limiting or stopping driving? There are many ways to get where you need to go, so you can remain engaged in activities that are important to you, even if you do not drive to get there. No single method of transportation is likely to meet all your needs.
What About the Future?

Family and Friends

The most common alternative to driving is getting rides from family members and friends. This mode of transportation may seem more familiar, comfortable, and social to many older adults. That said, there may be conflicting feelings of burdening or inconveniencing others. Some people may want to do something in exchange for the ride.

Local Service Programs That Offer Rides

These are locally developed programs, often sponsored by faith-based or non-profit organizations, which provide rides for older adults. The programs may charge nominal fees or accept donations, and often operate with the help of volunteer drivers.

Public Transportation (also called Mass Transit) and Paratransit Services

Public transportation, where available and convenient, can be an affordable option for some people. These services generally offer service at designated stops and destinations. Paratransit services have been referred to as Dial-a-Ride or Elderly and Disabled Transportation Services. These programs are almost always provided by public transit agencies.

Taxis or Car Services

These private services offer flexible scheduling and charge a fee. Many older adults may perceive these services as expensive or a luxury, but they can cost much less than owning and maintaining a car. Some taxi or car services may be willing to set up accounts that allow other family members to pay for services. Budget permitting, some people might want to hire their own driver.

Private Organizations or Business Shuttles

Services such as adult day centers, sheltered workshops, housing programs, churches and synagogues, and stores, malls, or other businesses may offer transportation for program participants or customers.
How Can You Pay for Your Trips?

DIFFERENT PAYMENT PROCEDURES APPLY TO THE TRAVEL OPTIONS LISTED BELOW

<table>
<thead>
<tr>
<th>Travel Options</th>
<th>Who Pays For Your Trips?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal vehicle</td>
<td>In nearly all cases, you do.</td>
</tr>
<tr>
<td>Family and friends</td>
<td>They do, but you might pay something.</td>
</tr>
<tr>
<td>Public transportation</td>
<td>You pay for each separate trip; there might be some discounts.</td>
</tr>
<tr>
<td>Paratransit</td>
<td>If sponsored by a public transit agency, you pay a reduced price. Other paratransit services may operate on a donation basis.</td>
</tr>
<tr>
<td>Local service programs</td>
<td>Many programs do not charge a fare but do ask for donations.</td>
</tr>
<tr>
<td>Taxis or car services</td>
<td>You pay; these trips might be expensive.</td>
</tr>
<tr>
<td>Private organizations</td>
<td>Generally, they pay; you do not.</td>
</tr>
</tbody>
</table>

It is important to remember that owning and operating a vehicle is expensive! When you compute your actual expenses for owning and operating your vehicle, you will discover two things:

- How much you are already spending on transportation.
- How much money could be available for another travel mode if you are thinking about not driving.
Match the car on the right with the most appropriate garage on the left.

1. Extend your years behind the wheel as a safe driver.
2. Know if you are driving safely.
3. Know about these for times when you cannot drive.
4. This is a factor when deciding to keep a personal vehicle.
5. Family, friends, taxis, and public transportation.

a. Budget.
b. Examples of alternate transportation options.
c. Get a detailed assessment, behind-the-wheel practice or add assistive devices.
d. Available transportation options in your local area.
e. Self-assess your driving skills with a quiz or questionnaire.

For more information on anything you have learned in this course go, to www.aarp.org/drc.
Introduction

Our goals for this course are to teach you how to boost your safety awareness, refresh and improve your driving skills, minimize crash risks, increase confidence, prolong mobility, and maintain independence.

Driving safely is a challenge that needs attention. It is particularly important to remain aware of the changes all around us: to ourselves, our vehicles, and our roads. We can use that knowledge to be safer drivers and travelers. Now that you have taken this course, you have gained many valuable strategies to renew your smart driving skills, improve your flexibility and fitness, and extend safe driving for many years.

Review key lessons learned.

- Understanding how changes can affect our driving
- Using strategies to extend our years of safe driving
- Exploring multiple travel options that help maintain our mobility and independence

Discuss how to get additional information about the topics covered in this course.
Key Lessons Learned

Be Aware of Changes

- Vision problems, including reduced ability to see signs or objects in dim light, reduced ability to judge speed and distance of other vehicles, and a greater sensitivity to glare.

- Hearing problems that interfere with recognizing potential danger signals.

- Increases in time needed to react to unexpected situations.

- Loss of muscular strength and flexibility, especially in the neck, legs, and feet, leading to a loss of balance and stability.

- More frequent use of multiple medications, which can be a problem because drug interactions can sometimes cause side effects such as blurred vision, confusion, inability to concentrate, drowsiness, dizziness, or weakness.

- Side effects of medical conditions that interfere with basic driving skills.

- Gaps in awareness, inability to concentrate, momentarily falling asleep, inability to remember places and tasks, or getting lost on familiar routes.

The aging process can interfere with the skills needed to safely operate a vehicle. Fatality rates per mile driven for persons in the 75- to 79-year-old range are more than twice as high as for persons in the 30- to 59-year-old range; the fatality rates for drivers age 80+ are even greater. When looking at fatalities per mile driven, drivers age 80+ have fatality rates that are almost as high as for novice teenage drivers.

You can reduce your likelihood of having a crash when you use the research-based safety strategies featured in this course. With the additional factor of bones becoming much more fragile with advanced age, traffic crashes can lead to serious consequences.
Consider New Approaches and Strategies

The good news is that smart drivers can adapt to these changes by practicing basic skills, being aware of potential dangers, and applying specific strategies to be safer in problem situations. The overwhelming factors affecting your risk in driving are how you drive and how others drive; this means that a large amount of the risk is under your own control.

BASIC DRIVING SKILLS REFRESHER

**Check before you go:** Check your fitness to drive today; consider alternative routes and times of travel; check your vehicle; and check around your vehicle before you go.

**Scan the area:** Viewing the total traffic scene helps you remain alert and prepared for hazards or traffic conflicts ahead.

**Create a space cushion:** Keep an adequate space cushion around your vehicle. This requires looking out for other vehicles traveling in front, behind, and on either side of your vehicle. This creates a buffer that provides time for you to react to a vehicle or object entering your path of travel.

**Look out for other drivers:** You can control your driving, but it is often amazing what others will or will not do on the road. Expect the unexpected!

**Give yourself time to react:** Take into account your driving situation. No matter what, be sure you can stop in time. Give yourself extra time in difficult road situations like rain, snow, or heavy traffic.
Pay special attention to specific challenging circumstances. Typical problem situations for older drivers include making left turns, especially at intersections; failing to yield the right-of-way; driving on a high speed roadway; merging into another traffic lane; driving at dusk or at dawn; and being distracted. Applying specific strategies to these situations helps increase your safety.

<table>
<thead>
<tr>
<th>SITUATIONS AND STRATEGIES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Left Turns</strong></td>
</tr>
<tr>
<td><strong>Intersections</strong></td>
</tr>
<tr>
<td><strong>Merging into Another Traffic Lane</strong></td>
</tr>
<tr>
<td><strong>Driving on a High Speed Roadway</strong></td>
</tr>
<tr>
<td><strong>Driving at Dusk or Dawn</strong></td>
</tr>
<tr>
<td><strong>Distracted Driving</strong></td>
</tr>
</tbody>
</table>
Another key strategy is trying to avoid situations that are difficult or especially risky.

**Some of the “self-limiting” strategies used are:**

- avoiding driving at night, at busy times, or in bad weather;
- making fewer trips;
- traveling shorter distances;
- taking routes with lower speed limits; and
- avoiding busy streets or highways, construction zones, and challenging intersections.

These strategies help limit driver risk and exposure; they can alleviate problems and make us all safer drivers.

**Look into Other Ways to Travel**

At some point in time, it might be necessary to limit or stop driving. Yet it is vital to remember there are lots of ways to get around besides driving. As drivers reduce their amount of time behind the wheel, they will need to explore the available travel options in their area and arrange the best choices for their trips.

Some of the transportation options (which may vary substantially from community to community) include:

- asking for rides from friends, family, and neighbors;
- paying someone to drive;
- taking taxis;
- using public transportation;
- walking; and
- arranging for door-to-door product deliveries.

Each of these options has advantages and disadvantages, and some are not available in all communities. Many are not as convenient as jumping into your car whenever you want to go somewhere, but all of them can and do work.

Most important of all is to stay connected, active, mobile, and safe.
Post-Course Quiz

For each of the following, circle the letter beside the statement that you feel is the BEST answer.

1. **Benefits from attending the AARP Smart Driver Course include:** (Overall)
   - a. Awareness of our changing selves, roadways, and vehicles
   - b. Learning to manage one’s travel needs and goals, and to be aware of all options
   - c. Knowing difficult driving situations and strategies to deal with them
   - d. All of the above

2. **Typical challenges for older drivers include:** (Unit 1)
   - a. Making left turns, especially at intersections
   - b. Failing to yield the right-of-way
   - c. Merging into another traffic lane
   - d. All of the above

3. **Which of the following medications are completely safe in every driving situation?** (Unit 2)
   - a. Herbal supplements
   - b. Over-the-counter
   - c. Prescribed
   - d. None of the above

4. **The edges of only the front tires being worn is a sign of _____**. (Unit 3)
   - a. taking curves too fast
   - b. poor alignment
   - c. under inflation
   - d. over inflation

5. **_____ of all fatal crashes involving older drivers occur at intersections.** (Unit 3)
   - a. 1/3
   - b. 1/2
   - c. 1/5
   - d. 2/3

6. **Roundabouts are considered to be _____ than traditional intersections.** (Unit 3)
   - a. a bigger cause of traffic congestion
   - b. safer
   - c. more controversial
   - d. less fuel efficient for vehicles
7 Which is NOT a safe strategy of highway driving? (Unit 4)
   a. Changing lanes without using turn signals
   b. The left lane is used for passing
   c. Stay out of other drivers’ blind spots
   d. Avoid unnecessary lane changes

8 Some key driving strategies are: (Unit 4)
   a. Be ready to react to unexpected situations
   b. Drive when you are emotionally and physically fit to do so
   c. Observe and obey all traffic control laws
   d. All of the above

9 Approaching someone with a potential driving problem should never include the following: (Unit 5)
   a. Starting the conversation with concern about their well-being, while allowing the person to “save face” or avoid embarrassment
   b. Accusing the person of being silly for wanting to continue driving
   c. Explaining that there are other travel options and acknowledging that the person has made progress in dealing with driving issues
   d. Suggesting that person consider a formal driving assessment by a professional

10 Warning sign(s) someone is becoming an unsafe driver include _______. (Unit 5)
    a. drives too slowly; other drivers often honk horns
    b. does not stop at stop signs or stop lights every time
    c. does not avoid left turns, even when problematic
    d. All of the above
How to Get More Information

You can improve your safety by staying up to date on the latest information about your health, your vehicles, and the roads you use. There are a number of ways that you can do this.

- Throughout this Guidebook, you have seen references to resources in the Appendix. Use them to help you stay informed and safe.
- Please visit the Online Driving Resource Center at [www.aarp.org/drc](http://www.aarp.org/drc) to access tools and resources.

---

### How to Obtain a Replacement Certificate

Complete the form below and mail with a check payable to AARP Driver Safety for $10.00 to:

AARP Driver Safety Replacement Certificate  
601 E Street, NW  
Washington, DC 20049

<table>
<thead>
<tr>
<th>Field</th>
<th>Information</th>
</tr>
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<tbody>
<tr>
<td>Today’s Date</td>
<td>____________________________</td>
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<tr>
<td>Name</td>
<td>____________________________</td>
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<tr>
<td>Address</td>
<td>____________________________</td>
</tr>
<tr>
<td>Date of Birth</td>
<td>____________________________</td>
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<tr>
<td>Date Course Completed</td>
<td>____________________________</td>
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<tr>
<td>Volunteer Instructor’s Name</td>
<td>____________________________</td>
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<tr>
<td>Driver’s License Number</td>
<td>____________________________</td>
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<tr>
<td>Course Location</td>
<td>____________________________</td>
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<tr>
<td>Male</td>
<td>□</td>
</tr>
<tr>
<td>Female</td>
<td>□</td>
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</table>

Please retain a copy of this request for your records.
# Medical Action Sheet

## MEDICATION AND MEDICAL CONDITIONS ACTION SHEET

<table>
<thead>
<tr>
<th>Medication</th>
<th>Dosage and How Often</th>
<th>Physician/Pharmacist</th>
<th>Potential Effects on Driving</th>
</tr>
</thead>
<tbody>
<tr>
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</table>

## MEDICAL CONDITIONS I SHOULD TALK TO MY DOCTOR ABOUT:

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10.
## Unit 2  “Red Flag” Medical Concerns

According to the National Highway Traffic Safety Administration (NHTSA), there are several red flags of medical concerns that may compromise driving ability. These can be found in the following table.

<table>
<thead>
<tr>
<th>Red Flag Medical Concerns</th>
<th>Background Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Visual Conditions/Diseases</strong></td>
<td>• Low vision: vision ranging from 20/200 to 20/50</td>
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<tr>
<td></td>
<td>• Cataracts: clouding of the lens of the eye</td>
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<tr>
<td></td>
<td>• Diabetic retinopathy: disease of the retina that can cause blindness</td>
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<tr>
<td></td>
<td>• Glaucoma: increased pressure in the eye</td>
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<tr>
<td></td>
<td>• Monocular vision: especially right eye blindness</td>
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<tr>
<td></td>
<td>• Macular degeneration: a gradual loss in the central part of the field of vision</td>
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<tr>
<td></td>
<td>• Visual field defects</td>
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<tr>
<td><strong>Heart Disease (if associated with cerebral ischemia)</strong></td>
<td>• Uneven heart beat</td>
</tr>
<tr>
<td></td>
<td>• Artificial cardiac pacemakers</td>
</tr>
<tr>
<td><strong>Cerebrovascular Disease</strong></td>
<td>• Congestive heart failure: heart cannot maintain an adequate circulation of blood</td>
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<tr>
<td></td>
<td>• Transient ischemic attacks (TIA) or mini strokes</td>
</tr>
<tr>
<td><strong>Diseases of the Nervous System</strong></td>
<td>• Narcolepsy: a sleep disorder characterized by sudden uncontrollable spells of daytime sleep and disturbances of nighttime sleep</td>
</tr>
<tr>
<td></td>
<td>• Sleep apnea: a sleep disturbance caused by obstruction of the airway</td>
</tr>
<tr>
<td><strong>Respiratory Diseases</strong></td>
<td>• Chronic obstructive lung disease, if associated with respiratory failure resulting in cognitive impairment</td>
</tr>
<tr>
<td></td>
<td>• Respiratory failure</td>
</tr>
<tr>
<td><strong>Metabolic Diseases</strong></td>
<td>• Hypothyroidism, or deficiency of the thyroid gland, if condition results in mental deficits</td>
</tr>
<tr>
<td></td>
<td>• Diabetes</td>
</tr>
<tr>
<td><strong>Renal (Kidney) Disease</strong></td>
<td>Chronic renal failure, if associated with cognitive impairment</td>
</tr>
<tr>
<td><strong>Dementia</strong></td>
<td>Progressive dementia (Alzheimer’s disease, Multi-infarct dementia)</td>
</tr>
<tr>
<td><strong>Psychiatric Diseases</strong></td>
<td>• Schizophrenia</td>
</tr>
<tr>
<td></td>
<td>• Personality disorder</td>
</tr>
<tr>
<td></td>
<td>• Chronic alcohol abuse</td>
</tr>
<tr>
<td><strong>Medications</strong></td>
<td>• Antidepressants</td>
</tr>
<tr>
<td></td>
<td>• Antihistamines</td>
</tr>
<tr>
<td></td>
<td>• Any drug that has prominent central nervous system effects (analgesics, some antihypertensives, sedatives, hypnotics, anxiolytics, benzodiazepines, stimulants)</td>
</tr>
</tbody>
</table>
## Unit 3  Vehicle Maintenance

<table>
<thead>
<tr>
<th>Vehicle Part</th>
<th>Why Check</th>
<th>What to Check</th>
<th>When to Check</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brakes</td>
<td>• They may not stop you fast enough to avoid a collision.</td>
<td><strong>Driver checks</strong></td>
<td><strong>Driver checks</strong></td>
</tr>
<tr>
<td></td>
<td>• They may pull the car to the side when stopping.</td>
<td>• Pedal pressure (pedal when pushed should stay well above the floor).</td>
<td>• Every time you start the engine.</td>
</tr>
<tr>
<td></td>
<td>• Failure to fix brakes is unsafe and can lead to more costly repairs.</td>
<td>• Car pulling to the side when brakes are used.</td>
<td>• Every time you drive.</td>
</tr>
<tr>
<td></td>
<td>• If you repair brakes when a problem first appears, it saves costly repairs later.</td>
<td>• Scraping and squealing noise.</td>
<td><strong>Mechanic checks</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Brake lining wear and fluid leaks.</td>
<td>• When driver thinks something is wrong.</td>
</tr>
<tr>
<td>Engine/Tune-Up</td>
<td>• Vehicle may lose power that is needed for normal driving and emergencies.</td>
<td><strong>Driver checks</strong></td>
<td><strong>Driver checks</strong></td>
</tr>
<tr>
<td></td>
<td>• Poorly tuned engines reduce gas mileage.</td>
<td>• Signs of less power (lugging).</td>
<td>• Every time you drive.</td>
</tr>
<tr>
<td></td>
<td>• Engine may not start.</td>
<td>• Hard starting.</td>
<td>• Every few fill-ups.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Gas mileage shouldn’t be allowed to drop more than 2 miles per gallon.</td>
<td><strong>Mechanic checks</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Mechanic checks</strong></td>
<td>• Every 10,000 miles, or</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Plugs and ignition system.</td>
<td>• Every 12 months (if possible, before winter).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Wiring and timing.</td>
<td><strong>Mechanic checks</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Fuel system.</td>
<td>• Every 12 to 24 months; or</td>
</tr>
<tr>
<td>Cooling System</td>
<td>• Engine may overheat or freeze.</td>
<td><strong>Driver checks</strong></td>
<td>• Every 15,000 to 30,000 miles.</td>
</tr>
<tr>
<td></td>
<td>• To prevent unnecessary engine wear, and serious engine damage.</td>
<td>• Cracked or broken hoses.</td>
<td><strong>Mechanic checks</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Loose belts.</td>
<td>• Every 12 to 24 months; or</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Insufficient levels of anti-freeze coolant.</td>
<td>• Every 15,000 to 30,000 miles.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Radiator rust, clogs, and leaks.</td>
<td><strong>Mechanic checks</strong></td>
</tr>
<tr>
<td>Oil and Oil Filter</td>
<td>• To prevent excessive heat, engine wear, and serious engine damage.</td>
<td><strong>Driver checks</strong></td>
<td>• Every 5,000 to 10,000 miles (gasoline engine); or every 3,000 to 5,000 miles (diesel engine); or every 12 months, depending on manufacturers’ recommendations.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Oil level and miles driven since last checked.</td>
<td><strong>Mechanic checks</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Mechanic checks</strong></td>
<td>• Every time you fill-up, or per your owner’s manual.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Oil and oil filter for cleanliness.</td>
<td><strong>Mechanic checks</strong></td>
</tr>
<tr>
<td>Vehicle Part</td>
<td>Why Check</td>
<td>What to Check</td>
<td>When to Check</td>
</tr>
<tr>
<td>----------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>---------------------------------------------------</td>
<td>-------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Headlights</strong></td>
<td>• Improves your night vision up to 90%.</td>
<td><strong>Driver checks</strong></td>
<td><strong>Driver checks</strong></td>
</tr>
<tr>
<td></td>
<td>• Even with good lights, at 50 mph, you can see only about 4 seconds ahead.</td>
<td>• Burned out bulbs.</td>
<td>• When you fill up with gas.</td>
</tr>
<tr>
<td></td>
<td>• A dead headlight may keep you from seeing a stalled car or a sharp curve in time.</td>
<td>• Dirty lenses.</td>
<td>• After driving on wet or muddy roads.</td>
</tr>
<tr>
<td></td>
<td>• An out-of-line light can shine where it doesn’t help you and may blind other drivers.</td>
<td><strong>Mechanic checks</strong></td>
<td>• Shine the lights on a wall before driving at night. Make sure that both high and low beams are working.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Headlight alignment.</td>
<td><strong>Mechanic checks</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Twice a year and as needed.</td>
</tr>
<tr>
<td><strong>Brake and Signal Lights</strong></td>
<td>• Brake lights tell others that you are stopping.</td>
<td><strong>Driver checks</strong></td>
<td><strong>Driver checks</strong></td>
</tr>
<tr>
<td></td>
<td>• Signals tell others what you are about to do.</td>
<td>• Burned out bulbs.</td>
<td>• When you fill up with gas.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Mechanic checks</strong></td>
<td><strong>Mechanic checks</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Wiring and sockets.</td>
<td>• Twice a year.</td>
</tr>
<tr>
<td><strong>Windows and Windshields</strong></td>
<td>• Dirty windows make it hard to see.</td>
<td><strong>Driver checks</strong></td>
<td><strong>Driver checks</strong></td>
</tr>
<tr>
<td></td>
<td>• Scratched, cracked, or dirty glass can increase glare and make it hard to see.</td>
<td>• All glass inside and out to make sure it is clean.</td>
<td>• When you fill up with gas.</td>
</tr>
<tr>
<td></td>
<td>• Damaged glass can break even in a minor collision.</td>
<td>• Scratches and cracks to see if glass needs to be changed.</td>
<td>• Every time you drive.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Windshield wiper fluid level to make sure there is a sufficient amount.</td>
<td>• Whenever you check under the hood.</td>
</tr>
<tr>
<td><strong>Tires</strong></td>
<td>• Worn or bald tires increase your stopping distance on wet surfaces, sand, and gravel.</td>
<td><strong>Driver checks</strong></td>
<td><strong>Driver checks</strong></td>
</tr>
<tr>
<td></td>
<td>• Worn or bald tires lessen overall control.</td>
<td>• Test air pressure when tires are cold. (Inflate to maximum pressure as recommended by vehicle manufacturer.)</td>
<td>• Once a week.</td>
</tr>
<tr>
<td></td>
<td>• Unbalanced tires and low pressure can cause tread wear.</td>
<td>• Treadwear indicators.</td>
<td><strong>Mechanic checks</strong></td>
</tr>
<tr>
<td></td>
<td>• Unbalanced tires cause the steering wheel to shake.</td>
<td>• Stick a quarter into the tire “head” first. If the tread doesn’t come up at least to Washington’s head, the tire is unsafe.</td>
<td>• Twice a year or during a tune-up or oil change.</td>
</tr>
<tr>
<td></td>
<td>• Low air pressure cuts down on gas mileage and vehicle control.</td>
<td><strong>Mechanic checks</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Worn tread or underinflation are causes of hydroplaning.</td>
<td>• Tire balance, alignment, and damage.</td>
<td></td>
</tr>
</tbody>
</table>
Unit 4  Crash Reporting

In Case a Crash Occurs:

• STOP.
• If you can, move your vehicle off the road so that you do not block traffic.
• Do not move an injured person unless necessary.
• Call 9-1-1, if needed.
• Get the names and addresses of all people involved in the crash and any witnesses.

Give the following information to the driver of the other vehicle and request it in return:

• Name and address.
• Driver license number and state of issue.
• Vehicle license plate number and state of issue.
• Make of vehicle.
• Model and year of vehicle.
• Damage to vehicle.
• Insurance company name.
• Names and addresses of passengers.
• Any other actions required by your state.

State-Specific Information
# Unit 4  Emergency Road Kit

The first rule is **be prepared**. The following items are suggested for an emergency kit and will make it easier to deal with most problems on the road:

<table>
<thead>
<tr>
<th>Most Important</th>
<th>Good to Have</th>
</tr>
</thead>
<tbody>
<tr>
<td>• spare tire in good condition.</td>
<td>• ice scraper.</td>
</tr>
<tr>
<td>• jack and lug wrench for changing tires.</td>
<td>• pocket knife.</td>
</tr>
<tr>
<td>• flashlight with good batteries.</td>
<td>• rags.</td>
</tr>
<tr>
<td>• fire extinguisher.</td>
<td>• water.</td>
</tr>
<tr>
<td>• first aid kit.</td>
<td>• empty container (at least two gallons).</td>
</tr>
<tr>
<td>• flares or a reflective day/night device.</td>
<td>• pair of pliers.</td>
</tr>
<tr>
<td>• a white rag or flag to signal for help.</td>
<td>• flat head and Phillips head screwdrivers.</td>
</tr>
<tr>
<td>• spare fuses.</td>
<td>• adjustable wrench.</td>
</tr>
<tr>
<td>• jumper cables.</td>
<td>• electrical and duct tape.</td>
</tr>
<tr>
<td></td>
<td>• sandpaper (to clean battery terminals</td>
</tr>
<tr>
<td></td>
<td>if the car will not start).</td>
</tr>
<tr>
<td></td>
<td>• tire chains, sand, or kitty litter for extra</td>
</tr>
<tr>
<td></td>
<td>traction in snow or ice.</td>
</tr>
<tr>
<td></td>
<td>• small shovel.</td>
</tr>
<tr>
<td></td>
<td>• camera to document a crash.</td>
</tr>
</tbody>
</table>
Unit 5  Assessing Your Travel Options

How Can You Get There?

Here are some more questions that you will want to answer about individual transportation planning:

My Current Transportation Experience

1. Do I usually drive to where I need to go?  
   Yes  \  No  
   If yes, are there times of day, locations, or weather conditions where I now restrict my driving?

2. Am I an experienced public transportation user?  
   Yes  \  No  
   If yes, what is my experience in using public transportation?

   If no, is there a particular reason(s) why I do not use public transportation?

3. Do I use any equipment or support to help me move around either at home or when I go out?
   \ Cane or walker
   \ Manual wheelchair
   \ Power chair
   \ Service or comfort animal
   \ Scooter
   \ Other ____________________________
Traveling with Others

1. Do I ever travel with someone who is paid to travel with me?  
   Yes ☐  No ☐

2. Do I usually travel with a family member or friend?  
   Yes ☐  No ☐

3. What kinds of support do these companions provide for me?

Transportation Services I Prefer to Use

1. Which kind(s) of transportation service(s) do I prefer to use?

2. What are other types of transportation service(s) would I consider for future use?

3. Will print and/or online Transportation Planning Guides assist me?  Yes ☐  No ☐

4. Am I comfortable reading and understanding transportation schedules, signs, and instructions?  Yes ☐  No ☐

5. What type(s) of assistance would be helpful for me?

What Can I Do from Home?

1. Are there tasks that I can accomplish without leaving my home?  Yes ☐  No ☐

2. Will my supermarket deliver groceries?  Yes ☐  No ☐

3. Will my pharmacy deliver my medications?  Yes ☐  No ☐

4. Can I get Meals-on-Wheels services or someone else to deliver meals?  Yes ☐  No ☐

5. Can I shop online or from catalogs for what I need?  Yes ☐  No ☐
Unit 🌟 Cost Worksheet for Owning and Operating a Vehicle

To find out how much it costs to own and operate your vehicle every year, list all the related expenses in the table and then add them up.

*If you list expenses on a monthly basis, do not forget to multiply by 12 to get the annual expense amount. If you list expenses on a weekly basis, multiply by 52 to get the annual expense amount. For less frequent expenses, such as tires, estimate the cost and divide by the number of years between expenses.*

<table>
<thead>
<tr>
<th>If your expenses are . . .</th>
<th>Then multiply by . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly</td>
<td>12 to get the annual expense amount</td>
</tr>
<tr>
<td>Weekly</td>
<td>52 to get the annual expense amount</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of Expense</th>
<th>Annual Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle payment/lease payment</td>
<td>$</td>
</tr>
<tr>
<td>Fuel</td>
<td>$</td>
</tr>
<tr>
<td>Insurance</td>
<td>$</td>
</tr>
<tr>
<td><strong>Routine Maintenance</strong> (oil, wiper blades, wash)</td>
<td>$</td>
</tr>
<tr>
<td>Repairs (tires, brakes)</td>
<td>$</td>
</tr>
<tr>
<td>Registration/License Fees</td>
<td>$</td>
</tr>
<tr>
<td>Taxes</td>
<td>$</td>
</tr>
<tr>
<td>Depreciation</td>
<td>$</td>
</tr>
<tr>
<td><strong>TOTAL ANNUAL COST TO OPERATE YOUR VEHICLE</strong></td>
<td>$</td>
</tr>
</tbody>
</table>
Quiz and Knowledge Check Answer Key

Unit 1 Pre-Course Quiz (page 4)
1. d; 2. d; 3. d; 4. a; 5. c; 6. a; 7. c; 8. d; 9. c; 10. d

Unit 1 Knowledge Check (page 8)
1. f; 2. c; 3. b; 4. a; 5. i; 6. e; 7. h; 8. g

Unit 2 Knowledge Check (page 32)
1. c; 2. a; 3. b; 4. f; 5. d; 6. e; 7. h; 8. g

Unit 3 Knowledge Check (page 62)
1. d; 2. b; 3. d; 4. a; 5. False; 6. True; 7. False; 8. True

Unit 4 Knowledge Check (page 86)
1. c; 2. d; 3. a; 4. b; 5. True; 6. True; 7. False; 8. True

Unit 5 Knowledge Check (page 102)
1. c; 2. e; 3. d; 4. a; 5. b

Unit 6 Post-Course Quiz (page 108)
1. d; 2. d; 3. d; 4. a; 5. a; 6. b; 7. a; 8. d; 9. b; 10. d
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The Driving Resource Center is uniquely designed for participants of the AARP Smart Driver Course to build upon the course and create a lifelong safe driving experience. We invite you to visit the Driving Resource Center, where you can create a custom experience based on your driving and select topics of most interest. More importantly, you can easily share your experience with friends and family and be an inspiration to their safety on the road.
Help make the roads safer in your neighborhood by volunteering with AARP Driver Safety. You will join a family of nearly 7,000 unpaid volunteers who are dedicated to teaching older drivers to be safer drivers.

Sign up to be an Instructor today and you will have the opportunity to organize, promote and teach at least 3 AARP Smart Driver Courses in your community each year. Instructors receive special training and are reimbursed for all approved program-related expenses.

If you have access to a computer, enjoy meeting new people, and are ready to make a difference in your community, please fill out an application at the end of the course!

BECOME A VOLUNTEER TODAY!

For more information on volunteering with AARP Driver Safety, talk with your Instructor today, or visit:

www.aarp.org/driversafetyvolunteer
AARP Driver Safety, which offers the nation’s first and largest refresher course for older drivers, and AARP Foundation would like to thank Toyota for its generous grant.

For more information about AARP Driver Safety, visit: www.aarp.org/drive

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