



THE USAA
EDUCATIONAL
FOUNDATION®

Good Information for Good Decisions.®

VEHICLE AND DRIVING SAFETY

THE EFFECTS OF AGING ON DRIVING SKILLS



OUR MISSION

The mission of The USAA Educational Foundation is to help consumers make informed decisions by providing information on financial management, safety concerns and significant life events.



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2 UNDERSTANDING CHANGING ABILITIES

Each year millions of individuals become senior adults who rely on driving to maintain independence.

Age And Safety

Age does not reflect driving ability. As a group, older adults are among the safest on the road — wearing seatbelts, obeying the speed limit and avoiding drinking and driving more than other age groups. Nevertheless, older adults are more likely to be injured or killed in a vehicle accident, no matter who is at fault.

Safe driving requires the complex coordination of many skills. Although few individuals associate 40-year-old adults with aging, this is when subtle changes in vision, hearing, fitness and concentration can begin — and may affect driving proficiency.

Pay Attention

By themselves, none of the following changes automatically indicate that an individual should stop driving. They do require paying more attention to driving safely, staying alert to changing capabilities and seeking the advice of a qualified physician. See “*What You Can Do*” on pages 6–7 for information on how to address these changes.

WEAKENING VISION	
WITH AGE, EYES:	THIS CAN CAUSE:
<ul style="list-style-type: none">• Recover from glare more slowly.	<ul style="list-style-type: none">• Temporary blind spots.
<ul style="list-style-type: none">• Have trouble focusing on nearby objects.	<ul style="list-style-type: none">• Difficulty focusing on a vehicle's instrument panel.
<ul style="list-style-type: none">• Have trouble transitioning between near and far objects.	<ul style="list-style-type: none">• Difficulty changing focus from the instrument panel to the road and back.
<ul style="list-style-type: none">• Need more light to see clearly, as pupil reaction time slows and the eye lens thickens.	<ul style="list-style-type: none">• Trouble seeing clearly at night and difficulty seeing low-contrast objects, such as pavement markings.
<ul style="list-style-type: none">• Become susceptible to age-related diseases such as cataracts, glaucoma and macular degeneration.	<ul style="list-style-type: none">• Sensitivity to light and glare and diminished peripheral and central vision.

DECREASING HEARING AND FITNESS

WITH AGE, YOU MAY:	THIS CAN CAUSE:
<ul style="list-style-type: none"> • Lose hearing acuity. 	<ul style="list-style-type: none"> • Difficulty hearing sirens, horns and other warnings.
<ul style="list-style-type: none"> • Lose strength and flexibility in arms, legs, hips and shoulders. 	<ul style="list-style-type: none"> • Difficulty turning the steering wheel, getting in and out of the vehicle and depressing pedals.
<ul style="list-style-type: none"> • Experience joint pain and inflammation, which affects manual dexterity. 	<ul style="list-style-type: none"> • Difficulty using vehicle controls.
<ul style="list-style-type: none"> • Lose mobility in your neck and back. 	<ul style="list-style-type: none"> • Inability to look over your shoulder to safely merge and change lanes.
<ul style="list-style-type: none"> • Become more prone to fatigue. 	<ul style="list-style-type: none"> • Inability to drive longer distances.

DIMINISHED CONCENTRATION AND REACTION TIME

WITH AGE, YOUR BRAIN:	THIS CAN CAUSE:
<ul style="list-style-type: none"> • Processes signals and perceives sensory data more slowly. 	<ul style="list-style-type: none"> • Difficulty complying with traffic signals and recognizing the actions of other vehicles.
<ul style="list-style-type: none"> • Becomes less able to focus on multiple tasks. 	<ul style="list-style-type: none"> • Trouble driving in unfamiliar, congested areas.
<ul style="list-style-type: none"> • Needs more information to select options and make decisions. 	<ul style="list-style-type: none"> • Delayed response to the demands of high speeds or heavy traffic.

4 ASSESSING AND ADDRESSING SKILLS

Stay Alert To Changes

It is never too late to begin maintaining and improving your current physical and mental skills. Use the following chart to evaluate whether your fitness, concentration and vision/hearing are adequate for safe driving.

DRIVING SKILLS ASSESSMENT			
FITNESS	YES	SOMETIMES	NO
Is it difficult to look over your shoulder before changing lanes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is it difficult to look left and right to check traffic at intersections?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you have trouble moving your foot from the gas pedal to the brake pedal?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you have trouble turning the steering wheel?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do your hands or arms grow tired when driving longer distances?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do your hands or arms become tingly or numb when you drive?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you walk less than 1 block each day?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are you unable to raise your arms above your shoulders?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is it difficult to climb stairs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have you fallen in the past 3 years?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONCENTRATION AND REACTION	YES	SOMETIMES	NO
Do you feel momentarily confused, nervous or agitated when driving?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are gaps in traffic difficult to judge, making it difficult to turn left at intersections or merge with traffic when turning right?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are you slow to recognize vehicles emerging from driveways and side streets?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

DRIVING SKILLS ASSESSMENT (CONTINUED)

CONCENTRATION AND REACTION (CONTINUED)	YES	SOMETIMES	NO
Are you slow to recognize that another vehicle has slowed or stopped in front of you?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you feel unable to respond to the demands of high speeds or heavy traffic?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you take medications that make you drowsy?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you sometimes get lost or become disoriented when driving?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
VISION/HEARING	YES	SOMETIMES	NO
Do you experience eye strain or headaches when you drive?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does driving make you tired?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is it difficult to read highway or street signs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When driving, do pedestrians, parked vehicles or other objects catch you by surprise?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you have trouble seeing pavement markings, bicyclists or other vehicles?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is it difficult to judge your distance from other vehicles?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is it difficult to tell how fast other vehicles are moving?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
At night, do the taillights ahead of you appear to double?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is it difficult to hear outside noises clearly when you are driving?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

IF YOU ANSWERED “YES” TO ANY OF THESE QUESTIONS, SEE “WHAT YOU CAN DO” FOR MORE INFORMATION.

6 WHAT YOU CAN DO

To some extent, you can maintain physical abilities by eating well and exercising regularly. Additionally, you can build driving proficiency with practice:

- Ask a professional driving instructor to assess your skills.
- Register for an accident prevention program tailored for older drivers.

The following checklist offers additional suggestions for keeping your fitness, concentration and vision/hearing as sharp as possible on and off the road.

Fitness

- Schedule regular physical exams.
- With physician approval, begin a regular exercise program.
- Consult a physician immediately if you have pain or swelling in your feet or pain or stiffness in your arms, legs or neck.

Concentration And Reaction

- Consult a physician if you experience memory loss.
- Plan your route before you begin driving.
- Drive familiar roads whenever possible.
- Watch traffic patterns and conditions and avoid driving during heavy traffic or poor weather.
- Avoid driving when taking over-the-counter or prescription medications that cause drowsiness, decrease energy or slow reaction times. Avoid driving for 1 to 2 days when taking any new medication, to ensure you do not have an adverse reaction.

Vision/Hearing

- Visit your eye health-care provider at least annually, or immediately if you experience sudden vision loss, eye pain or irritation.
- See your eye health-care provider annually if you are 60 years of age or older to check for cataracts, glaucoma, macular degeneration, diabetic retinopathy and other age-related conditions. Most eye diseases can be treated effectively when detected early.
- Wear corrective lenses at all times, as appropriate. Keep them clean. If glasses are lost or broken, do not rely on an old pair; replace them immediately with your newest prescription. Avoid eyewear with side pieces that may block your vision.

- Avoid driving at dawn, dusk and night. If you must drive, do not wear sunglasses or tinted lenses during these times. Consider wearing yellow-tinted lenses on gray days and at dusk and dawn.
- Consider wearing amber-tinted lenses on bright, sunny days for glare control.
- Do not darken or tint your vehicle windows.
- Keep your windshield, mirrors and headlights clean, and make sure the headlight aim is checked when your vehicle is inspected.
- Increase illumination on your vehicle's instrument panel.
- Adjust your seat height so that you can see 10 feet of the road in front of your vehicle. This reduces nighttime glare from oncoming headlights. Also, look to the lower right side of the road when there is oncoming traffic.
- Eliminate your driver's side blind spot by adjusting your side mirror. First, lean your head against the window, then move your mirror outward so that when you look at the inside edge, you can barely see the side of your vehicle. If you use a wide-angle mirror, practice judging distances to other vehicles before using it in traffic.
- Be alert to sounds outside your vehicle if hearing is limited. Limit passenger conversation and background noises from the radio. If you wear a hearing aid, avoid driving with open windows; wind noise can impair the aid's effectiveness.

Drive Sensibly

- **Avoid distractions.** Do not eat, drink, apply makeup, adjust the radio, pick-up dropped objects, read the newspaper or daydream when operating your vehicle. Avoid using your cell phone. Focus on driving.
- **Yield to other drivers.** Remain on the defensive and assume other drivers have the right of way in all situations.
- **Use caution at intersections.** Be extra careful when entering and leaving intersections. Keep your vehicle's wheels pointed straight ahead when waiting to turn left to avoid being pushed into oncoming traffic should you be rear-ended.
- **Check your blind spots.** Never rely on rear- and side-view mirrors alone. Turn your head and check blind spots before changing lanes.
- **Keep your distance.** Do not follow other vehicles too closely.

8 WHAT ABOUT YOUR VEHICLE?

Maintain Your Vehicle

Staying safe on the road requires a dependable and responsive vehicle as well as an able driver. Regularly check your vehicle's tires, brakes, steering, directional signals, brake lights, and windshield wipers or ask a professional mechanic to do so. Do not wait for your annual vehicle inspection to make sure your vehicle is working properly.

ADAPTIVE DEVICES FOR YOUR VEHICLE

If necessary, the following adaptive devices can help you gain more visibility and control when driving:

Seat and back cushions for improved visibility.

Visor extenders to reduce glare.

Pedal extenders for better control of gas and brake pedals.

Steering wheel covers, or steering devices, to improve your grip and ability to turn.

Corrective mirrors to help eliminate blind spots.

For more information about these devices and their appropriate use, consult an occupational therapist or a driving rehabilitation specialist. You can also visit the following Web sites:

- The American Occupational Therapy Association
www.aota.org
- The Association for Driver Rehabilitation Specialists (ADED)
www.driver-ed.org

THE USAA EDUCATIONAL FOUNDATION PUBLICATION, *SAFE ON THE ROAD*, OFFERS MORE INFORMATION. SEE "RESOURCES" ON THE INSIDE BACK COVER OF THIS PUBLICATION TO ORDER A FREE COPY.

Choose A Safer Vehicle

When purchasing a vehicle, check the safety ratings — crash tests, experience ratings and rollover ratings — as well as safety features that can help provide you more control and comfort including:

- Access to vehicle controls, including gas and brake pedals.
- Airbags.*
- Antilock brake systems and stability tracking systems.
- Anti-skid control.
- Height-adjustable seats for good visibility. You should be able to see at least 3 inches over the top of the steering wheel.
- Legible instrument panel.
- Large, glare-proof mirrors.
- Electric pedal extenders.
- Power steering, windows and door locks.
- Properly adjusted headrests, located against the back of your head.
- Properly fitted restraints.
- Tilt and telescoping steering wheel.
- Turn signals on mirrors.

**When used in conjunction with safety belts, air bags provide the best protection available in a vehicle crash. However, serious air bag injury can occur when drivers are positioned too closely to the steering wheel. Always buckle up and sit at least 10 inches from the steering wheel.*

10 PLANNING ALTERNATE TRANSPORTATION

Even if you currently drive safely, it is wise to prepare for limiting or stopping driving in the future. Take time to learn about transportation options available in your community. After researching these services, you may find them to be more convenient than driving and parking your own vehicle.

When calculating the cost of alternate transportation, consider the savings of reducing or eliminating the expense of owning, maintaining, insuring and parking your vehicle. Also, check with your local branch of the National Association of Area Agencies on Aging (n4a). These agencies plan, coordinate and offer services that help make independent living an option for older adults. Your local branch of the n4a may support taxi cab voucher or other programs that can reduce your transportation costs. For more information, visit www.n4a.org.

City Buses, Trams And Subway Systems

Using public transportation systems for the first time can be intimidating, but public transit departments are willing to teach consumers about their services.

- Ask about schedules, routes, bus stops and safety.
- Recruit friends to help you interpret timetables and maps. Ask them to accompany you as you try routes.
- Request a house-call training session if you are part of a large group.

Taxi Cabs And Personalized Driver Services

These services are available in larger metropolitan areas and are useful when you live in suburban areas where public transportation is less available.

- Learn how these services assess rates and fees.
- Determine the cost of transportation to and from places you frequent.
- Take several short trips to see how you like the service.
- Request a house-call training session if you are part of a large group.

Shuttle Buses

Many churches, senior centers, retirement communities and municipalities offer shuttle bus services for their members and seniors.

- Become familiar with the pick-up and drop-off points and hours of operation for these services.
- Determine the costs and take several trial runs if possible.
- Ask whether transportation is available at night and on weekends or holidays.

Many adults make appropriate adjustments for changing capabilities and maintain safe driving habits well into their 80s. However, driving skills inevitably deteriorate with age. You may eventually need to stop driving.

If you wonder whether that time is approaching, reflect on recent driving experiences, making every effort to be honest about your abilities and possible limitations.

CHECK THE FOLLOWING STATEMENTS THAT APPLY TO YOU

- | | |
|--------------------------|---|
| <input type="checkbox"/> | I have trouble seeing over the dashboard. |
| <input type="checkbox"/> | I have trouble recognizing or observing traffic signs and signals. |
| <input type="checkbox"/> | I have trouble moving my foot from the gas to the brake pedal. |
| <input type="checkbox"/> | I have trouble turning to look over my shoulder. |
| <input type="checkbox"/> | I have trouble hearing emergency sirens. |
| <input type="checkbox"/> | Sometimes other vehicles seem to “come out of nowhere” and surprise me. |
| <input type="checkbox"/> | It is difficult to judge gaps between vehicles when merging with oncoming traffic. |
| <input type="checkbox"/> | It is difficult to judge gaps between oncoming vehicles when making a left turn. |
| <input type="checkbox"/> | Other drivers honk at me. |
| <input type="checkbox"/> | I sometimes feel overwhelmed by the signs, signals, pedestrians and other vehicles I must be aware of when driving. |
| <input type="checkbox"/> | I sometimes forget how to drive to familiar places. |
| <input type="checkbox"/> | I have been getting lost more frequently. |

IF YOU CHECKED ANY OF THE ABOVE ITEMS, IT MAY BE TIME FOR YOU TO LIMIT OR STOP DRIVING.

What You Can Do

With a family member's help, seek a professional evaluation of your driving skills. If possible, look for a safe driving course offered by an adult education program, local rehabilitation center or the American Association of Retired Persons (AARP).

If a driving test is scheduled with a public testing center such as the Department of Motor Vehicles (DMV), you should prepare for the consequences that could occur if you fail the test. Your license could be revoked immediately, so you will need to have alternate transportation plans in place.

Driving Well

Driving well requires the complex coordination of many physical and mental skills. It requires experience, ongoing training, good judgement and the ability to respond quickly and decisively to changing conditions. When you understand the changes that accompany aging and take steps to address these changes, you can maintain your ability to drive safely — and enjoy the independence and freedom it provides.

For More Information

AAA Foundation For Traffic Safety

607 14th Street NW, Suite 201
Washington, DC 20005
(202) 638-5944
www.seniordrivers.org/home

Insurance Institute For Highway Safety

1005 N. Glebe Road, Suite 800
Arlington, VA 22201
(703) 247-1500
www.iihs.org

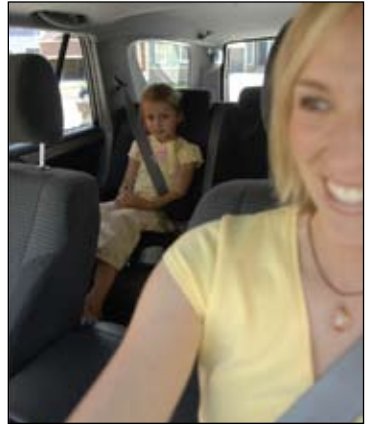
National Highway Traffic Safety Administration

1200 New Jersey Avenue SE
West Building
Washington, DC 20590
(888) 327-4236
www.nhtsa.gov

U.S. Administration On Aging

One Massachusetts Avenue NW
Washington, DC 20201
(800) 677-1116
www.aoa.gov

RESOURCES



The USAA Educational Foundation offers the following related publications.

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