Motor Vehicle Safety

In the US, nearly 115 People are killed EVERY DAY in a Vehicle.

Objective of This Lesson

- Basic knowledge of the traffic rules as they apply to VA staff and volunteers.
- The use of caution while performing their driving duties.
- What to expect/look out for while driving on the road.

Introduction

- Risk is always present:

  Approximately 50 percent of ALL vehicle-occupant fatalities involve SINGLE-vehicle crashes, most of which occur on relatively straight roadways.

The Most Common Type of Accident

- The driver runs off the road, responds incorrectly (IF AT ALL), strikes a fixed object or overturns.

- This type of crash occurs more frequently among YOUNG drivers (21 and below) and drivers OVER 65 years of age. The basic difference is that where young drivers tend to crash at night, older drivers tend to have their mishaps during the day.
Perceived risk differs from actual risk.

Whenever visibility is limited (by a bush, tree, another car, a billboard, etc.), drivers must be alert and respond to the increased risk rather than driving blindly into a crisis situation.

Risk Is Shared

- It’s important to remember that actions of ALL roadway users (pedestrians, animals, bicyclists or drivers) – EFFECT ALL OTHER USERS

What are the shared costs?

- The costs resulting from any collision are not restricted to persons who fail to take safety precautions.

Some effects of shared costs from bad drivers?

- High Medical Costs
- Rehabilitation Costs
- Higher Insurance Premiums
- Increased Taxes
- Personal Distress

Risk Levels Can be Altered

- Managing risk starts with an aggressive visual search of the driving environment.
- Don’t try to do too many things at one time – Limit Multi-tasking

An aggressive visual search of the roadway and off-road areas will give you more time and help you to:

- Achieve early awareness of other highway users.
- Identify an escape route if needed.
- Determine how much traction there is.
- Predict possible actions of other highway users.
- Assess the consequences of alternative responses.
- Adjust your speed and/or position well in advance.
SECTION 2  Traffic Laws

References

- All State, Federal and Local Traffic ordinances apply and must be adhered to.
- VHA Handbook 7700-1
- VHA Directive 2004-040 (Volunteers)
- General Safety Guidebook, Motor Vehicle Safety Section

Listening Devices

The wearing of portable headphones, earphones or other listening devices while operating a government vehicle engaged in the transport of patients is PROHIBITED.

Hand-Held Devices

Cell phone use is prohibited while driving government-owned or government-leased vehicles. However, if there is a passenger, the passenger may dial numbers and relay information to and from the vehicle operator.

Drivers shall not engage in text messaging (reading from or entering data into any hand-held or other electronic device, including for the purpose of short message service texting, e-mailing, instant messaging, obtaining navigational information -including GPS units, or engaging in any other form of electronic data retrieval or electronic data communication) when: driving Government Owned Vehicles (GOV); driving Privately Owned Vehicles (POV) while on official government business; or, using electronic equipment supplied by the government while driving.

Driving Regulations

No person shall operate ANY government motor vehicle without a VALID state driver’s license and proof of liability insurance in their possession and on file with Voluntary Service.

SPEED

Vehicles must proceed at no more than the posted speeds, consistent with traffic and weather conditions, so as not to endanger pedestrians or other vehicles.

- Young male drivers are the most likely to speed (AAA survey).
- Young drivers (under 21) who speed also fail to wear safety belts.
- The chance of death or serious injury doubles for every 10 miles per hour over 50 miles per hour that a vehicle travels.
- One mile per hour is approximately 1.5 feet per second. Therefore, a vehicle traveling 60 miles per hour is covering 90 feet per second.
Safety Belts and Restraints

- In 2005, if every person in the front passenger seat had buckled up, an additional 9,835 deaths could have been prevented.
- IT’S THE LAW. OHIO DRIVERS WILL WEAR SAFETY BELTS AT ALL TIMES.

Headlights

- If you have your windshield wipers on for rain or snow, you must also have your headlights on.

Facts and Figures

- The National Highway Traffic Safety Administration tallied the cost of motor vehicle accidents and the figure was $150 BILLION.
- These were based on costs arising from crashes that killed 40,716 people and injured 5.2 million others.
- Personal and household crimes cost their victims $19 billion.

General Information

- 75 percent of all crashes occur within 25 miles of home.
- 60 percent of crashes with deaths or injuries happen on roads with posted speed limits of 40 miles per hour or less.
- In 2005, 41,798 people died in crashes. That’s an average of 115 deaths a day or one every 13 minutes.

Section 3

Identification of High-Risk Highway Conditions

Changes in highway conditions usually create problems.

Three Main Conditions on the highway are critical:

- Visibility
- Space
- Traction

Visibility

- As a driver, you must have a clear field of vision to gather information and guide a motor vehicle effectively.
- Good driving visibility depends on the distance you can see ahead and to the sides.
It consists of your line of sight and field of view.

Your field of view is the entire area of the highway and its surroundings that you can see at any given moment.

Line of sight is the imaginary line that extends from the driver’s eyes to the point of focus.

Highway Conditions

Visibility changes continuously as the driver moves along the highway.

You must identify areas of reduced visibility well ahead.

An area of reduced visibility is any highway area ahead where the sight distance and/or field of view is less than that required for safe travel at your current speed.

Conditions Off-Road

Conditions off-road can also reduce your field of view to either side of your intended path of travel on a highway.

Can you name some of these off-road conditions that could reduce your field of view?

- Shrubbery
- Signs
- Buildings
- Parked cars
- Actions happening off the highway

Those conditions may hide:

- Intersections
- Driveways
- Other vehicles
- Bicycles
- Joggers
- Pedestrians
- Children

Such obstacles not only prevent YOU from seeing, but could prevent OTHER drivers from seeing you.

These situations are especially risky; hidden dangers can appear suddenly in your stopping zone.
Traffic Conditions

- Can reduce a driver’s sight distance and visual lead time.
- Fixed or slow moving objects may come into view too late.
- Larger vehicles can also reduce your view of the path ahead.

Section 4

Your Driving Environment

Examples that may affect your driving environment

- Bright Glare
- Sunglasses
- Driving at Night
- Driving at Dusk
- Bad Weather

Bright Glare

During daylight hours, backgrounds such as snow or sand causes glare, which sharply decreases your ability to see. Driving toward the sun can be a particular problem because your eyes adapt slowly to changes in light intensity. So WHAT can you do?

**SUNGLASSES!!**

Keep sunglasses clean and free of scratches. Polaroid, neutral gray or green are rated the best for reducing glare.

Driving at Night

Visibility problems associated with nighttime driving are the least understood. Aside from reduced details, darkness conceals many objects that you can see during daylight.

No one can see as well at night as during the daytime. Sight distance is limited to the distance illuminated by your headlamps. At night, you do not have the advantage of color or contrast that you have during the daytime.

Night Vision

Three factors affect your night vision:

- Ability to see under conditions of low light.
- Ability to see against glare.
Time needed to recover from exposure to bright light.

Other Factors

Because you can see well during the daytime, it doesn’t mean you can see well at night.

Persons who have been driving 4 to 5 hours on a bright sunny day often find they need an hour or more for their eyes to adjust to low light at dusk or at night.

Some people simply CAN’T drive at night because of their inability to adjust to glare or low light.

Night driving also reduces your ability to see to the side. Regardless of how good your headlights are, headlights don’t adequately light off-road areas.

To minimize the problems of night driving:

Adjust your speed to compensate for reduced visibility.

Keep your eyes moving. Don’t focus on the middle of the lighted area.

Use your high and low beams correctly.

Avoid steady driving around your usual bedtime.

Look to the sides of objects.

Protect your eyes from glare.

Keep windshields and headlights clean.

Make it easier for others to see you.

Use cars without tinted windshields.

What may affect your driving environment?

Bright Glare

Sunglasses

Driving at Night

Driving at Dusk

Bad Weather

Driving at Dusk

Be especially alert at dusk. The sky is quite bright, but objects on the road can merge with shadows and fade into darkness.

Bad Weather
Visual problems can occur during snowstorms or rain showers. If weather becomes too bad, pull to the side of the road in a safe place and wait for conditions to improve.

Drive with your headlights on!!

Although not the law, driving with your low-beam headlights on during daylight hours makes you much more visible to other drivers.

Following Distance

- For safe movement forward, a vehicle must have a clear path equal to the minimum stopping zone for the speed traveled.

Allow a safe interval.

- Space allows you time to stop safely if other drivers brake suddenly.

A GENERAL RULE IS:

With good visibility and a safe alternate path of travel, allow a 2 to 3 second interval when you follow another vehicle on dry pavement.

Traction (Adhesion)

The listed variables can affect your adhesion with the road:

- Types of surfaces:
  - Concrete
  - Blacktop
  - Brick
  - Dirt
  - Gravel
  - Sand on hard surface

- Surface conditions:
  - Water
  - Snow
  - Ice & BLACK ICE
  - Dirt
  - Oil from cars

- Temperature changes
Seat Belt Myth

Have you heard this myth? I don’t need a safety belt when I’m traveling at low speeds or going on a short trip.

More than 80 percent of all motor vehicle crashes occur at speeds less than 40 MPH and within 25 miles from home.

Safety belts are designed to allow you to reach necessary driving controls. The newer shoulder belt retractors give you more freedom.

The fact is that your chances of being killed are FOUR times greater if you’re thrown from a car.

BOTTOM LINE

ALWAYS WEAR YOUR SEAT BELT.

“IT’S THE LAW.”
1. At what time is an older driver more likely to have a mishap?
   A. Daytime       B. Afternoon       C. Night

2. Managing Risks starts with ________________?
   A. Checking Traffic Flows  B. Watching Traffic Lights/ Signs  C. Aggressive Visual Search

3. What’s important to remember about actions of all roadway users?
   A. They affect all other users  B. They are unexpected  C. They don’t pay attention

4. In managing risk, a visual search will help you identify ____?
   A. As escape route if needed  B. A way to pass slower traffic  C. Warning signs

5. Who are the most likely to speed?
   A. Young Male Drivers  B. Older DriversYoung  C. Female Drivers

6. A vehicle traveling 60 miles per hour is covering how many feet per second?
   A. 60 feet per second  B. 90 feet per second  C. 120 feet per second

7. Who is required to wear safety belts?
   A. Everyone  B. All Passengers  C. Driver Only

8. What are the three Main Conditions of the highway called?
   A. Control, attention & visibility  B. Speed, time, use & distance  C. Visibility, space & traction

9. We know that good driving visibility depends on two things, _____________, _____________?
   A. No glare, good weather  B. Line of sight, field of view  C. Mirror adjustment, clean windows

10. Which two conditions can reduce a driver’s visibility?
    A. Off-road and traffic  B. Weather and traction  C. Vehicle and maintenance
11. What can YOU do about bright glare?
A. Sunglasses  B. Drive at night only  C. Stop driving

12. These are two ways to minimize the effects of night driving?
Adjust your speed to compensate for reduced visibility. Use high or low beams correctly.
True  False

13. How many seconds is needed for a safe following distance?
A. 2 to 3 seconds  B. 4 to 6 seconds  C. 5 to 7 seconds

14. If you can’t see, you should pull to the side of the road at a safe place and wait for the weather to clear.
True  False

___________________________________________________/______________________
Signature  Date