

VHA Driver Safety – VA 7350

Course Overview

The goal of the National Safety Council's Defensive Driving Course is to provide drivers with the knowledge and safe driving techniques to prevent collisions and violations.

The course focuses on collision prevention through hazard recognition and application of collision avoidance techniques. In addition, the course also addresses common driving violations that result in collisions, and how to change driving habits to eliminate moving violations.

Let's take a brief moment to review the content that will be covered in each Session in this course.

In Session 1: Get Defensive About It! you will learn how to:

1. Recognize the need for and benefits of defensive driving.
2. Identify risky driving attitudes and behaviors.
3. Explain what it means to be a defensive driver.
4. Recognize that defensive driving involves both legal and personal responsibilities.
5. Determine if a collision was preventable or non-preventable.

List the three basic steps in the DDC Collision Prevention Formula.

In Session 2: Making Driving Choices, you will learn how to:

1. Identify the personal benefits of using occupant protection systems.
2. Explain the affects of alcohol and other drugs on driving ability.
3. Identify physical and mental driver conditions that may affect driving ability.

List techniques you can use to maintain control in adverse driving situations.

In Session 3: What Conditions Drive You?, you will learn how to:

1. Conduct an exterior and interior vehicle check before driving.
2. Identify five uncontrollable driving conditions that contribute to collisions.
3. Identify the driving hazards associated with these driving conditions in time to avoid them.

List defensive driving maneuvers that help drivers maintain control for each uncontrollable driving condition.

In Session 4: The Choice Is Yours, you will learn how to:

1. List the six most common types of driving errors that contribute to collisions.
2. Identify reasons drivers choose to speed.
3. List alternatives to speeding.
4. Explain how to safely approach and proceed through all intersections.
5. Explain how to make safe and legal turns.
6. Identify the hazards involved in passing.
7. Explain how to evaluate a potential passing situation.
8. Explain the three steps needed to complete a safe pass.
9. Explain how to avoid a head-on collision.
10. State how to determine safe following distance.

In Session 5: Infection Control When Transporting a Patient, you will learn how to:

1. Describe how bloodborne diseases are transmitted
2. List the common body fluids that contain other potentially infectious material (OPIM)
3. Identify three risk areas that affect the risk of pathogen exposure
4. Identify ways to prevent exposure to bloodborne pathogens
5. Describe what to do if you are exposed to blood or other potentially infectious material (OPIM)

In Session 6: Safely Managing Oxygen Cylinders During Patient Transport you will learn how to:

1. Identify the hazards of transporting oxygen.
2. Describe the safe way of transporting oxygen in a vehicle.

In Session 7: Conclusion, the reasons why you have taken this course are reviewed and how this training can be of benefit to you

This Defensive Driving Course has been updated much like the vehicles you drive today. It shows you ways to drive safely and responsibly that will become habit as you put them into practice. It provides you with tips for handling what you can control: yourself and your vehicle. It provides you with useful guidelines for coping with everyday driving conditions you cannot control: weather, light, traffic, roads, and other drivers.

All these habits can make the difference between life and death, health and injury. We know your experience in this course will be meaningful and, as a result, you will want to be a defensive driver.

Session 1

Objectives

In this session, you will learn how to:

1. Recognize the need for and benefits of defensive driving.
2. Identify risky driving attitudes and behaviors.
3. Explain what it means to be a defensive driver.
4. Recognize that defensive driving involves both legal and personal responsibilities.
5. Determine if a collision was preventable or non-preventable.
6. List the three basic steps in the DDC Collision Prevention Formula.

Introduction

Do you think you are a good driver? This course will help you to become more than just a **good** driver—it will help you become a safe, responsible, **Defensive Driver**.

Many of us think that we are good drivers. However, the facts indicate that we all could improve our driving habits. Let's take a closer look at what you think about traffic safety.

Recognize the need for and benefits of defensive driving.

Believe it or not, approximately 40,000 people are killed in traffic collisions each year and 2.3 million people are injured in traffic collisions.

Statistically speaking, in your lifetime you will be involved in a collision about **every ten years**. That's about six collisions in your lifetime!

To most of us, these statistics are just that: numbers. We think that collisions, injury, and death will not happen to us or to someone close to us. But the facts show: it can and does happen every day.

When you think of it that way, these numbers become more than statistics; they become a serious threat to you and me. In other words, we need to be not only good drivers but **defensive drivers** as well. By learning to drive more defensively, we can reduce our chances of being the next statistic.

When you are driving, don't just drive for yourself. Drive for the five other people who are important to you. Make it a habit to protect the area around your vehicle so everyone arrives at his or her destination safely.

Your attitude toward other drivers and driving usually indicates what you are willing to do to get what you want when you are driving. In other words, your attitudes are your collision-risk factors.

The fact is that we all take risks sometimes; and when we do, we temporarily let someone or something else take control of the situation.

Before we choose to take a risk and give someone or something else control, we should ask ourselves two questions:

1. Is getting what I want or where I'm going so important that I am willing to risk my life ... or other people's lives?
2. Am I willing to be involved in a collision or get a ticket just to get to work on time, get ahead of someone else, or have some fun?

If we answer yes even sometimes to these questions, we also have to accept the responsibility and results of risk-taking behavior.

Do you get irritated when other drivers are driving too slowly?

In this case, the attitude is reflected in the word **irritated**. Some drivers might choose to tailgate to get the slower driver to speed up or just to make him or her nervous. Such an attitude contributes to an unsafe behavior, **tailgating**, which could result in a rear-end collision.

If we all lived in a perfect world, driving would be a wonderfully cooperative experience.

If everyone would:

Pay attention

1. Drive at an appropriate speed
2. Show courtesy toward other drivers

We might have no need for a defensive driving course.

But the reality is that we do not live in a perfect world.

Some drivers seem to be out there on the roads just to make driving more difficult than it should be. In contrast, defensive driving protects us from what is happening around us.

Defensive Driving Characteristics.

Developing defensive driving habits involves:

1. Making safe and legal driving decisions
2. Creating a stress-free personal driving space in and around your vehicle
3. Driving to your destination safely, without a ticket or a collision, or compromising other drivers' safety
4. Practicing courtesy, compassion, common sense, and cooperation

Recognizing the risks of hazardous driving conditions and behaviors.

By definition, DEFENSIVE DRIVING is:

“Driving to save lives, time, and money, in spite of the conditions around you and the actions of others.”

Based on what we have covered so far, the following statements are some of the benefits derived from being a defensive driver.

1. Saving my life and others' lives in my vehicle or other vehicles
2. Reducing collision-related injuries
3. Saving time by not getting a ticket or being in a collision
4. Saving money (fines, wages, insurance deductibles, insurance rate increases, attorney fees, car rental)
5. Reducing my chances of getting a ticket or being involved in a collision

When drivers get into a collision or get a ticket, most have enough excuses to write a book:

1. The road was slippery.
2. Everyone else was speeding.
3. The driver slammed on the brakes and made me hit the car ahead.
4. I didn't see the STOP sign.
5. The traffic light turned yellow as I was going through the intersection.

Sound familiar? We have all probably used some of these excuses. On the other hand, a defensive driver does not have to blame the weather, the road, the traffic, or other drivers when something happens.

Often, it seems that you have to drive not only for yourself but for everyone else too.

A defensive driver does everything **reasonable** to avoid a collision or violation. If that means slowing down in bad weather, the defensive driver slows down.

If it means letting a problem driver get ahead, the defensive driver lets the problem driver go and does not challenge the action.

Defensive driving is not trying to “get back” at someone who cuts us off, and it is not trying to get to the front of the line first. In driving, there is no front of the line!

In learning to become a defensive driver, we also have to look at collisions and violations from the point of view of this crucial question:

“What reasonable action should I have taken to avoid the collision or violation?”

Instead of trying to find out who’s to blame or coming up with an excuse, we should be asking how the collision or violation could have been prevented.

Now we will determine if a collision was preventable or non-preventable.

By definition, a PREVENTABLE COLLISION is:

“A collision in which the driver fails to do everything reasonable to avoid it.”

The facts show that the majority of collisions are preventable. What’s even more important is that those same facts show that violations are the cause of most collisions.

In order to prevent collisions and violations, we need to remember that defensive driving is doing everything reasonable in spite of the conditions around us and the actions of others.

The most difficult thing about being a defensive driver is taking personal responsibility for our actions instead of blaming “the other person” or coming up with other excuses.

As stated earlier, drivers doing something wrong cause most collisions to occur, in other words violating a traffic law or doing something unsafe. On the other hand, if we take personal responsibility for obeying traffic laws and making safe driving decisions, our chances for collisions drop sharply.

Although we cannot control the other driver’s actions, we can defend ourselves from being involved in a collision by developing driving habits that help us recognize hazards.

The National Safety Council has developed the DDC Collision Prevention Formula which is a three-step process to help drivers avoid dangerous situations.

The DDC Collision Prevention Formula includes three lifesaving steps:

1. Recognize the Hazard,
2. Understand the Defense,
3. Act Correctly, in Time.

To recognize a potential hazard, we must give our full attention to the driving task.

If you ever have surgery, you would want the doctors to pay full attention to what they are doing rather than talking on the phone or reading the paper while operating.

Many drivers are not aware that driving, like surgery, is a full-time job that requires all of our attention and use of our senses. Just like we want the doctors to pay attention, we should pay attention too. In both cases, there is a life at stake—our own!

Recognizing hazards requires us to use our senses.

1. Vision
2. Hearing
3. Smelling
4. Touch or Feel

How do you use your vision to recognize hazards?

1. Scan the road ahead and behind your vehicle.
2. Scan ahead to the next intersection or block.
3. Scan ahead to the next overpass, hill, or curve.
4. Check your rear and side mirrors every 3 to 5 seconds.

Step 2 in avoiding collisions is to understand the defense available to us. Recognizing hazards is important, but we also need to know exactly what to do to avoid collisions.

One way to focus our attention on driving, so that we can recognize a hazard and understand the defense against it, is to use the "What If?" strategy.

When you are driving, look around at all the other vehicles. Pick one and think about what that driver might do that could cause you a problem.

"What if that driver were to pull out in front of you?
What would you do?"

If we do this block-by-block, mile-by-mile, this strategy will keep us mentally alert and will also prepare us for the third step of the DDC Collision Prevention Formula, acting correctly, in time.

Step 3 in avoiding collisions is to act correctly, in time. Time is crucial in avoiding collisions. If recognizing the hazard is important, knowing what to do and doing it in time to avoid a collision are even more important.

Acting correctly after it is too late is like sending out wedding invitations after the wedding or locking the door after the house has been robbed!

Let's review a driving scenario and think about if it is a preventable or non-preventable collision.

On a two-lane road, Driver A has been following a contract trash company truck with its taillights flashing for several blocks. The truck has stopped several times along its route, pulling partway over onto the gravel shoulder to pick up trash. Driver A has tried several times to pass the truck, but can't pass because of oncoming traffic. Driver A is getting angry.

As the truck starts to pull over for the next pickup, Driver A sees a break in oncoming traffic and decides it's time to act. After a quick glance at the left side-view mirror, Driver A turns on the left directional signal, turns the wheel quickly, and steps on the gas pedal. Driver B, who was also trying to pass and is in Driver A's blind spot, crashes into Driver A.

Was this collision preventable? Absolutely. This collision was preventable.

In this case everyone contributed to the collision.

1. The truck was not able to pull completely over to the curb.
2. Drivers behind Driver A did not let him or her out from behind the truck.
3. Driver A lost emotional control.
4. Driver B did not scan the road ahead.

Driver A could have used more following distance behind the truck to see around it.
Driver A should have checked the mirror and then the blind spot before pulling out to pass the truck.
Driver A could have turned at the next intersection and taken another street.

Driver B could have avoided the collision by letting Driver A pass the truck.

In this session, you learned how to:

1. Recognize the need for and benefits of defensive driving.
2. Identify risky driving attitudes and behaviors.
3. Explain what it means to be a defensive driver.
4. Recognize that defensive driving involves both legal and personal responsibilities.
5. Determine if a collision was preventable or non-preventable.
6. List the three basic steps in the DDC Collision Prevention Formula.

Session 2: Making Driving Choices

Objectives

In this session, you will learn how to:

1. Identify the personal benefits of using occupant protection systems.
2. Explain the affects of alcohol and other drugs on driving ability.
3. Identify physical and mental driver conditions that may affect driving abilities.
4. List techniques you can use to maintain control in adverse driving situations.

Introduction

One of the personal choices you can make as a driver is to protect yourself and your passengers every time you get behind the wheel. Let's start by taking a look at some vehicle safety features that can save your life: occupant protection systems.

Occupant Protection Systems

Most vehicles are equipped with several types of occupant protection systems. Safety belts, air bags, child safety seats, head restraints, and door locks are examples. All play a role in keeping you and your passengers safe.

First, let's take a closer look at why these systems are valuable.

Dynamics of a Collision

Why are occupant protection systems so important? One way to understand their value is to look at the dynamics of a collision. Every motor vehicle collision actually includes three crashes.

Three Stages of a Collision:

1. The Vehicle Crash
2. The Human Crash
3. The Internal Crash

Stage 1: The Vehicle Crash

The first stage is the vehicle crash. The vehicle strikes an object causing it to buckle and bend as it hits and comes to an abrupt stop.

The front end absorbs some of the force of the collision and cushions the rest of the vehicle. As a result, the passenger compartment comes to a more gradual stop than the front of the car.

Stage 2: The Human Crash

The second stage is the human crash. The vehicle's occupants hit some part of the vehicle. At the moment of impact, unbelted occupants are still traveling at the vehicle's original speed.

Another form of the human crash is person-to-person impact.

Unbelted occupants colliding with each other cause many serious or fatal injuries.

In a collision, occupants move toward the point of impact, not away from it. Unbelted rear seat passengers become high-speed projectiles striking people in the front seat. As a result, the front seat passenger's risk of death greatly increases.

For example, if a vehicle is traveling at 55 mph, how fast will the unbelted occupants still be going at the moment of impact? The unbelted occupants would still be traveling at 55 mph at the moment of impact. And, just after the vehicle comes to a complete stop, the occupants will slam into the steering wheel, windshield, dashboard, seat, or other interior surfaces.

Stage 3: The Internal Crash

The final stage is the internal crash, which often causes serious or fatal injuries.

After the occupant's body comes to a complete stop, his or her internal organs are still moving forward. Suddenly, these organs slam into other organs or the skeletal system.

Without occupant protection systems, our chance of survival in a collision is significantly reduced.

When used properly, occupant protection systems can be lifesavers. The one we are most familiar with is the safety belt. Safety belts are lifesavers. Safety belts PROTECT, CONTROL, and help you to SURVIVE.

1. Safety belts **protect** you by absorbing the force of a collision.
2. Safety belts help you stay in **control** of your vehicle.

Safety belts increase your chances of **surviving** by more than 50 percent. They reduce the risk of fatal injury to front-seat passenger-car occupants by 45 percent.

How do safety belts work?

A properly fastened safety belt is your best protection during a collision. As a vehicle rapidly slows down, it distributes the force over the stronger and larger parts of your body. This includes your chest, hips, and shoulders. The safety belt stretches slightly to slow your body down.

To protect yourself and your passengers, make it a habit to buckle everyone up properly, lock the doors, and adjust the seat and head restraint properly.

There are two types of safety belts:

1. Lap belts
2. Unibelts

Lap Belt

1. Secure it low and across the hips.
2. Drivers are required to wear them in older or antique vehicles, if the vehicle has had them installed.
3. Back-seat passengers need to buckle them.

Unibelt

1. Always buckle the lap belt low across the hips.
2. The shoulder harness should be snug against your chest.

There are some misconceptions or myths about safety belts that have been around for years.

Such as, "I can move around, back and forth, in my shoulder harness, so the safety belt isn't working."

This is a myth. Newer safety restraints are designed to allow movement. The belts "lock" to prevent us from hitting the dashboard when we step on the brake firmly or move forward quickly.

Another myth is "Safety belts trap passengers in burning or submerged vehicles."

This is also not true. Less than one-half of one percent of injury-producing collisions involve fire or submersion. If we don't wear our safety belts, we have a very good chance of being knocked unconscious and not escaping.

Another misconception is, "I'm only driving to the local store; I don't really need to wear my safety belt. I won't be in a collision." The fact is, nearly three-fourths of drivers involved in fatal collisions were within 25 miles of their home. More than 80 percent of drivers incurring injury in a collision were less than 25 miles from home.

To get the greatest protection from occupant protection systems, before driving your vehicle, you should:

1. Making sure all adults and older children buckle up using both lap and shoulder belts.
2. Securing infants and younger children in the proper child safety seat, always in the back seat.
3. Closing and locking all doors and tailgates.
4. Keeping front seat backs upright.
5. Properly adjusting the head restraint.

While it is always important to wear your safety belt, vehicles now offer the added protection of air bags. Air bags are **Supplemental Restraint Systems (SRS)**. Safety belts and air bags together offer the best protection in a collision.

How can driver and passenger air bags help protect you?

Driver and Passenger Air Bags:

1. Absorb collision energy and help protect the driver's and front seat passenger's head, neck, and chest in a frontal impact collision
2. Reduce the risk of serious head injury by 81 percent
3. Provide extra protection when used with other occupant protection systems, but are not a substitute for safety belts
4. Do not inflate in a moderate frontal collision (0-5 mph) (0-8.0465 kph), or during a rear impact, side impact, or rollover.

Side-impact air bags are now included in many newer vehicle models. These bags inflate in a moderate-to-severe side-impact collision to cushion the driver and passengers from the doors and side windows. These bags can be found in the side of the seats by the doors, in the roof area above the windows, or in the doors.

Air Bag Safety Tips

Air bags do save lives and reduce injuries, but they can pose risks. An air bag comes out of the steering wheel or dashboard faster than a blink of an eye and at great force. Air bags have been involved with some collision fatalities that resulted from:

1. Lack of child restraint and safety belt use
2. Incorrect safety belt use
3. Sitting too close to the steering wheel or dashboard

You can prevent serious injuries or deaths from air bags by following these important safety tips.

Children should sit in the back seat.

1. Children riding in cars should be buckled in, in age- and size-appropriate restraints. That means using child safety seats or seat belts in the back seat.
2. If an older child must sit in front, move the seat back as far as it can go and buckle the child in correctly.

Adults should move their seat back.

1. Drivers and passengers of vehicles equipped with air bags should move their seats back.
2. Drivers need to move their seats back to a position that allows them to see and properly operate their vehicles.
3. There should be 12 to 15 inches of space between the driver's chest and the center of the steering wheel.
4. Adjust the steering wheel so that the air bag is aimed at the chest, not the face.

Child Safety Seats

Infants and young children need special protection when riding in vehicles because their bodies are smaller and much more fragile than an adult's body.

Experts tell us that over 90 percent of child safety seats are installed incorrectly. Know what type of seat your child needs and always read the child safety seat manual for instructions on how to properly install and use the restraint.

Next we will explain the affects of alcohol and other drugs on driving ability.

Impaired Driving

Did you know that statistics show, two out of every five Americans will be involved in an alcohol-related traffic collision at some time in their lives.

Although alcohol-related collisions have declined over the years, the deaths and injuries caused by alcohol and other drug-impaired driving are still dangerously high. In a one year time period:

1. Alcohol was involved in nearly 41 percent of all traffic deaths.
2. An average of one alcohol-related death occurred about every 30 minutes.
3. About 300,000 people were injured in alcohol-related collisions.

But there is good news. More and more states are dealing more effectively with drug-impaired driving by imposing stricter fines and consequences on these drivers.

Drug-Impaired Driving

The term "drug-impaired driving" refers both to alcohol and to other drugs. Either one threatens all of us. When we drive under the influence of alcohol or other drugs, we have made a clear-cut choice—and, like all choices in life, this one has consequences. Choosing to drive while drug impaired has serious consequences.

Yet, with all of the news and information we get about the affects and consequences of drugs and alcohol on driving ability, people still continue to drive while drug impaired.

"Other drugs" include illegal drugs, prescription drugs, and some common over-the-counter (OTC) drugs used for sleep aids, allergies, coughs, and colds.

Impaired Driving Affects Everyone.

Even if you don't drink and never drink and drive, you share in the losses caused by others who do. Take responsibility for yourself—if you are drinking, do not drive. Take responsibility for those you care about by taking the keys from an impaired driver. Don't let family or friends drink and drive.

Did you know that a person's ability to drive safely can be impaired by the use of certain prescription and over-the-counter drugs? Drugs that cause side effects such as drowsiness, slow reaction time, impaired judgment, and dizziness can affect driving skills. In fact, certain prescription and over-the-counter allergy medications may impair driving far worse than alcohol!

Mixing certain medications with alcohol or other drugs also greatly increases the risk of a collision. For instance, extreme drowsiness, mental confusion, and breathing difficulty can result from mixing alcohol and certain cough, cold, and allergy medications.

Mixing medications and alcohol can also increase the side effects of both, or even make the medication less effective, all of which may create a dangerous situation.

Statistics show certain prescription and common OTC drugs are a contributing factor in more traffic collisions. According to one National Highway Traffic Safety Administration (NHTSA) study of multi-state fatal collisions, almost one in five drivers had drugs other than alcohol in their bodies.

Your Prescription for Driving Safely.

Here are some additional tips for driving safely:

1. Ask your pharmacist or doctor how any medications you are taking may affect your driving.
2. Always read medication labels. Follow directions for using the product and taking the suggested dose. Check labels for warnings. "May cause drowsiness" or "Do not use while operating machinery" means don't drive your vehicle.
3. Play it safe—Make other driving arrangements if you are taking any prescription or over-the-counter drugs that will impair your driving ability.

Zero-Tolerance Levels

Drinking and driving and other drugs and driving don't mix—especially for young drivers. Every state has zero-tolerance laws for underage drinking and driving.

Yet, every day in the U.S., 13 young people between the ages of 16 and 24 die in an alcohol-related collision. Though many of these young people are underage to legally consume alcohol, they are of legal age to drive—a deadly combination.

Zero-tolerance laws prohibit the possession and use of alcoholic beverages by drivers and vehicle occupants under age 21. States pass these laws to discourage alcohol consumption by drivers under age 21.

In other words, they are laws intended to prevent needless death and injury. Zero-tolerance laws provide that any amount of alcohol in the body of a driver under age 21 is an offense. The offender's driver's license may be suspended for a period of time or revoked.

Graduated Driver Licensing

Graduated Driver Licensing or GDL is a graduated approach to teen driving. It is also an effective way to reduce new driver risks since inexperienced teen drivers are at greater risk for collisions than other drivers. What's more, in 45 states and the District of Columbia, it is in effect in some form.

GDL slowly introduces teen drivers into everyday traffic settings in phases, over a period of time. This allows new drivers time to practice in low-risk conditions, under supervision. As they mature and build their driving skill, they graduate to full driving privileges. Driving restrictions include driving at night, driving with teen passengers in the vehicle, and zero-tolerance blood alcohol concentration (BAC). Overall, GDL is a good start to a lifetime of safe and defensive driving.

There are three phases to Graduated Driver Licensing:

1. Learning or Permit—Supervised driving practice under certain conditions or restrictions: Learn the rules of the road, obtain a learner's permit, learn the basics of operating a vehicle, and PRACTICE!
2. Intermediate or Provisional—Restricted license for a set period of time. Unsupervised driving is allowed in certain conditions or with some restrictions.
3. Full, Unrestricted License—This happens only if the driver has remained free of violations and collisions.

Physical Conditions

Although drug-impaired driving makes the headlines, other driver conditions can contribute to collisions and violations. These conditions may be subtler, but they are just as dangerous. They include both physical and mental (emotional) conditions.

Physical Conditions That Contribute to Collisions

1. Age
2. Mobility
3. Hearing
4. Vision
5. Illness or use of medication
6. Fatigue or drowsiness

The first condition we are probably all aware of is age. Age affects everyone differently.

Mature-driver conditions:

1. Decreased physical capabilities
2. Diminished hearing and vision
3. Increased reaction time
4. Reduced mobility

Defensive driving solutions for mature drivers include:

1. Use experience as a guide to handle traffic situations.
2. Avoid driving at times when traffic is heavy or at night.
3. Adjust speed to your physical condition.

Young-driver conditions:

1. Better sight and hearing
2. Quicker reaction time
3. Better mobility
4. Subject to the number one cause of death for people under 25—traffic collisions
5. Lack of experience in hazard recognition

Defensive driving solutions for young drivers include:

1. Don't drive faster than experience or conditions warrant.
2. Don't let other people in the vehicle distract you from driving attentively.

Mobility Limitations

1. Difficulty checking blind spots and around the vehicle (less mobility of the neck)
2. Difficulty maneuvering

Defensive driving solutions for mobility limitations include:

1. Drive vehicles with power accessories (brakes, steering, windows).
2. Install large, well-placed mirrors in the vehicle.
3. Wear safety belts for protection and support.

Sit on a cushion to make the seat firmer and more comfortable.

Hearing Limitations

1. Difficulty hearing emergency vehicle sirens
2. Difficulty hearing traffic sounds
3. Difficulty hearing vehicle sounds

Defensive driving solutions for drivers with hearing limitations include:

1. Keep the volume of the radio, CD or tape player low enough for you to hear outside sounds.
2. Ask passengers to speak at low levels.
3. Check the mirror every three to five seconds to compensate for limited hearing ability.
4. Never wear headsets while driving.

Vision Conditions

1. 90 percent of our sensory input
2. Reduced ability to see at night or dusk
3. Near- or far-sighted vision problems
4. Night blindness

Defensive driving solutions for vision limitations include:

1. Don't wear sunglasses or tinted regular glasses for night driving.
2. Turn your head completely to check blind spots, and recheck before making a move.
3. Wear your glasses or corrective lenses at all times.
4. Do not look directly at bright lights; they temporarily blind you.
5. Keep your windows and windshield clean, inside and out.

Illness and Medication

Cause:

1. Slower response time
2. Inattention
3. Drowsiness

Defensive driving solutions for a driver suffering from illness or is on medication include:

1. Don't drive for long distances.
2. Keep alert by using the "What-If?" hazard recognition strategy.
3. Check the label on any medicine you take. If it says that it may have adverse effects, reconsider driving.
Take a taxi or have someone else drive.

Fatigue and Drowsiness

Caused not only by lack of sleep, but also by driving.

1. In heavy traffic
2. On monotonous roads or highways
3. In bad weather
4. For too long a stretch
5. In a vehicle that is too warm
6. While under the influence of alcohol or other drugs or medications

Defensive driving solutions for fatigue and drowsiness include:

1. Take rest breaks.
2. Stop and get something to eat.
3. Talk with passengers.
4. Listen to the radio.
5. Open the window for fresh air.
6. Stop, get out, and go for a walk.

Have you ever felt like you were about to fall asleep at the wheel?
Learn to recognize these danger signs when driving if you:

1. Can't focus or keep your eyes open
2. Have trouble keeping your head up
3. Can't stop yawning
4. Have wandering, confused thoughts
5. Don't remember the last few miles you have driven
6. Drift out of the lane or hit a rumble strip
7. Keep jerking your vehicle back into the lane
8. Speed up or slow down often
9. Miss an exit

Additional Defensive Driving Solutions for avoiding fatigue and drowsiness include :

1. Maintain a regular sleep schedule and healthy diet.
2. Avoid alcohol, drugs, or medications that cause drowsiness.
3. When the danger signs start to show, get off the road. Take a short nap in a safe place.
4. Avoid driving at night between 12 am and 6 am.

On long trips, begin early in the day. Share the driving with a companion. Stop every 100 miles or 2 hours. Get out of the car and walk around. Exercise helps fight fatigue.

Mental Conditions

In addition to physical conditions, we all need to be aware of our emotions, or mental conditions, that may affect our driving ability.

Anger

Anger is one mental condition to which we may react on the road. It grows out of some other emotion that is working on us. Disappointment, suspicion, and pride are some examples. Once we identify that main emotion, we can work to control our anger.

We all like to believe that we are in control of our lives and our vehicles. Sometimes, though, as in a few of these situations, we are actually giving control to other drivers. We give them control by the way we react to them.

For example, we may choose to get angry and then try to get back at a driver. We may think about cutting him or her off at the next light or not allowing the car to pass.

Aggressive Driving

When other drivers are acting out behind the wheel, it is commonly referred to as aggressive driving. It is best to avoid aggravating the situation.

What can you do to control anger behind the wheel? Avoid aggravating the situation. We can't predict what another driver may do. Let that hostile driver go by and get ahead so that we can control the situation.

Stress is another mental condition that is dangerous to everyone's driving safety—our own safety and the safety of others around us. It comes from letting other matters—such as deadlines—take priority over our driving.

It's one thing to know the importance of being emotionally in control in driving situations, but it is much more difficult to do the right thing when we suddenly find ourselves in such situations. What we need to have working for us is a plan for gaining control when our emotions are affecting our driving.

We all have stressful obligations in our lives, but smart drivers realize that a collision or violation is only going to increase their stress.

Distracted Driving

Today our lives are busier than ever. So, doing other tasks while driving may seem like a good use of our time, but these distractions take our attention away from driving. They also increase the risk of a collision. After all, it only takes a second for a collision to happen.

Why should you be concerned about distractions?

Because Distracted Driving:

1. Competes with the attention and skills you need for driving
2. Takes your eyes off the road and hands off the wheel
3. Increases the risk of a collision

What is a driving distraction?

It is an event, activity, object, or person that shifts your attention away from the task of driving.

Talking on a cell phone, eating, grooming, adjusting the radio, using laptops or handheld devices are examples of distractions that cause drivers to take their eyes off the road and their hands off the wheel.

In spite of their benefits, these devices can be a distraction that puts you at risk by taking your mind and eyes off the road and away from driving.

Even thinking about something else such as work or school, or talking to others, can take a driver's mind off driving. Any combination of these distractions increases the risk even more.

The bad news is distractions take our attention away from driving and increase the chance of a collision. Research studies show distracted driving contributes to about 25 percent of vehicle collisions.

Source: NHTSA

Driving safely requires giving your full attention to the road and possible hazards. The key is finding ways to better manage distractions that happen while driving.

Some other safety tips that you can use ...

1. Do not reach down or behind the driver's seat, pick up items from the floor, open the glove compartment, or clean the inside windows while driving.
2. Avoid emotional conversations with passengers.
3. Pull over to a safe area to care for children.
4. If you must use a cell phone, keep both hands on the wheel and eyes on the road—keep safe driving a priority. Pull over to a safe area to make or receive a call. Do not dial or answer a call when driving, especially in hazardous conditions.
5. Watch for other distracted drivers who may not see you.

Aggressive driving impacts the safety of the driver and everyone around him or her. Certain driving behaviors contribute to aggressive driving and cause over 50 percent of all collisions.

This fact may surprise you: A major cause of aggressive driving is a loss of personal control in some aspect of a person's life.

Many aggressive drivers view driving aggressively as taking control. "I'll show these people how to drive; I'll teach them a lesson." However, the opposite is true. What is worse, aggressive driving can get out of control and grow to road rage when other drivers attempt to "get even."

Do you know the difference between aggressive driving and road rage?

AGGRESSIVE DRIVING is:

1. Driving in a bold, selfish, or pushy manner without regard for the rights or safety of other drivers.
2. A ticketable offense.

ROAD RAGE is:

1. Using a vehicle as a weapon with intent to do harm.
2. Physical assault of a person or vehicle as a result of a traffic incident.
3. A criminal offense.

Reduce your own aggressive driving behavior and avoid confrontations with other aggressive drivers by taking and maintaining self-control.

Every decision you make has consequences, both positive and negative. You need not give up control of your driving to the actions of others or to random emotions.

Remember—the only person who can control your behavior behind the wheel is you. Other drivers may make you mad, but only you have the power to make your own decisions.

Reduce Stress and Aggression Behind the Wheel

Remember—driving is not a win or lose situation.

The only winners are those drivers who reach their destination safely. Don't worry about the behavior of other drivers, concentrate on driving safely.

Aggressive driving only leads to more aggressive driving.

Show courtesy to other drivers; give them the benefit of the doubt. The more courtesy a driver shows, the more he or she gets back.

Avoid driving when angry, upset, or overly tired.

Plan your trip with enough time so you don't feel rushed.

Use the time to relax instead of focusing on hurrying to a destination. Let it be personal time spent in a personal space. Listen to music or think about something pleasant.

Personalize the other drivers.

Don't forget that every driver is someone's family member or friend.

Three Steps to Regain Control

If you find that you are becoming aggravated or are choosing unsafe, aggressive behaviors, try using these three steps:

1. **Reflect.** Ask yourself: "Why am I feeling this way or choosing this behavior? Is this something I can control?"
2. **Reframe** the situation. Create a more positive and safe situation. For example: "It could be worse."
3. **Refocus.** Think about something else, not the situation(s) that are causing you stress.

Summary In this session, you learned how to:

1. Identify the personal benefits of using occupant protection systems.
2. Explain the effects of alcohol and other drugs on driving ability.
3. Identify physical and mental driver conditions that may affect driving ability.
4. List techniques you can use to maintain control in adverse driving situations.

Session 3: What Conditions Drive You?

Objectives

In this session, you will learn how to:

1. Conduct an exterior and interior vehicle check before driving.
2. Identify five uncontrollable driving conditions that contribute to collisions.
3. Identify the driving hazards associated with these driving conditions in time to avoid them.
4. List defensive driving maneuvers that help drivers maintain control for each uncontrollable driving condition.

Introduction

Three factors make up your driving environment: you (the driver), your vehicle, and everyday driving conditions. In the previous sessions, you have learned the importance of taking and maintaining control, along with the situations that you, as a driver, are responsible for controlling. Besides yourself, the only factor you can control is your vehicle.

Some driving situations and conditions are beyond your control: weather, light, road, traffic, and other drivers. In this session, we are going to identify defensive driving techniques that will give you an advantage in recognizing and dealing with each of them.

Vehicle Condition

The first condition we are going to discuss is the condition of our vehicles. The owner's manual for your vehicle contains suggested maintenance schedules and other information intended to keep your vehicle in good condition. The condition of your own vehicle is one that you can control. You decide when, where, and how to drive it: Keeping your vehicle in top form will help you to maintain control in all types of driving conditions.

Some common vehicle problems that can contribute to a collision are:

1. Worn tires
2. Improper tire inflation
3. Directional signals not working
4. Headlights or taillights out
5. Poor condition or failure of brakes
6. Worn wiper blades

Does the equipment on your car function properly? Check often to make sure the brakes, lights, and other equipment work properly. Keeping your car in good condition helps keep you safe. Keeping your vehicle in top form will help you maintain control in all types of driving conditions.

Windows

1. The side windows may not be composed of, covered by, or treated with highly reflective or mirrored material that reflects more than 35% of light.
2. If the rear windows are composed of, covered by, or treated with any non-transparent material, the car must have side mirrors on both sides.

Horn

Make sure your car's horn works and can be heard from a distance of 200 feet.

Mirrors

Properly adjusted mirrors are key for scanning. Most vehicles have three rearview mirrors. One is a center interior mirror; the other two are exterior mirrors on each side of the vehicle. Adjust the **interior** mirror to see immediately behind your vehicle and as far down the road behind as possible.

To adjust the left outside mirror:

1. Sit behind the steering wheel and lean to the left until your head touches the side window.
2. Adjust the mirror until the side of the vehicle disappears.

To adjust the right outside mirror:

1. Sit behind the steering wheel and lean as far to the right as you did to the left.
2. Adjust the right-side mirror until the side of the vehicle disappears.

Once you have made these mirror adjustments, use the lean and look method as you drive. Leaning forward and looking into the side mirrors allows you to see far more of the areas beside and behind your vehicle than just glancing into the mirror.

As vehicles approach from behind, you will see them in the interior rearview mirror. As vehicles move alongside and drift out of the interior mirror, they will be visible in the exterior side mirror. As vehicles leave the side mirror, they will be in your peripheral vision.

The reverse applies in passing other vehicles on an expressway. As you pass them, they drift out of your side vision and will be visible in the side mirror. As you gain more distance, they will become visible in the interior mirror.

Be mindful of the warning on the right-side exterior mirror. This warning means that when you spot a vehicle or object in the mirror, turn your head and take a quick glance to see exactly where it is.

Tires

Worn or smooth tires contribute to many serious crashes. Make sure your car's tires have a visible tread of at least 2/32 of an inch across the base with no worn spots showing ply.

Lights

To be seen in the day and at night, make sure all of your car's lights work properly. Keep your lights in working condition by:

1. Replacing any burned-out bulbs.
2. Cleaning headlight and taillight lenses often—dirty lenses cut night vision by one-half.
3. Keeping headlights properly adjusted to prevent blinding other drivers.

Pollution Control Devices

Remember, it's illegal to remove, disconnect, or tamper with any pollution control device on your vehicle. If you do, you are guilty of a first- or second-degree misdemeanor crime depending on the offense.

Windshield Wipers

Make sure the wipers are in working order for clearing rain, snow, or moisture from the windshield.

Your car's windshield:

1. Must be safety glass.
2. Should not be covered or treated with reflective or light-blocking material.
3. Must be free of any stickers not required by law.
4. Should be kept clean on the inside and outside to improve visibility and reduce glare.

Once you are in the vehicle:

1. Close and lock all doors.
2. Adjust the seat.
3. Adjust the head restraint as directed in your vehicle owner's manual.
4. Use appropriate occupant-protection devices.
5. Adjust the mirrors.
6. Make sure you can see all the way around the vehicle.
7. Start the engine.
8. Scan the gauges for warning lights.
9. Adjust the window, vents and heater or air conditioner controls for comfort.
10. Make sure you are physically and emotionally ready to drive.

Make It a Habit!

Just like every other defensive driving habit, maintaining a schedule for regular vehicle check-ups is a habit that will pay off.

Once a week, you should check:

1. Oil Level
2. Washer fluid level
3. Tire pressure

Once a month you should check:

1. Automatic transmission fluid
2. Brake fluid

Once every six months, you should:

1. Check windshield wiper blades
2. Rotate tires

Now we are going to review a scenario and identify five uncontrollable driving conditions that contribute to collisions.

Driver A is driving westbound at 40 miles per hour (65 kph) on a busy two-lane road. It's late in the afternoon. A light, misty rain is starting to fall. Driver A presses the washer switch and turns on the windshield wipers to clean off the windshield. Only a small squirt sprays out causing the windshield to smear. The windshield is also starting to fog up.

Up ahead at a mini-mart gas station, Driver B is waiting to make a left turn out of the driveway. As Driver A approaches, Driver B looks straight at the other driver. Seeing a break in traffic in the eastbound lanes, Driver B inches forward. As Driver A looks down to turn on the defroster, Driver B pulls out directly in front of the other driver.

What are the possible hazards in this scenario? They are:

1. Busy two-lane road.
2. Late afternoon traffic.
3. Misty rain makes the road slick.
4. Driver A has poor visibility and is distracted.
5. Driver B pulls out of gas station.

What Conditions In This Situation Might Cause Problems For Drivers A and B? They are:

1. Weather conditions: rain
2. Traffic conditions: heavy afternoon traffic
3. Light conditions: overcast
4. Road conditions: slick from light rain

What did Drivers A and B do that was unsafe?

Driver A unsafe actions were:

1. Did not maintain vehicle properly; had no washer fluid to clean the windshield.
2. Distracted; did not set defroster control earlier.
3. Assumed Driver B would not pull out.

Driver B unsafe actions were:

1. Trying to make left turn across a busy two-lane road during peak traffic.
2. Assumed Driver A would let him/her make the turn.

What defensive driving advice would you give to both drivers?

Driver A:

1. Inspect vehicle before driving.
2. Fill windshield washer solution before driving.
3. Set controls before driving.
4. Slow down in poor weather conditions.
5. Be prepared to slow down and stop if Driver B pulls out.
6. Keep a safe following distance.
7. Watch for tailgating drivers.

Driver B:

1. Making a left turn may not be safe, especially in poor weather.
2. Find a safer way to get out of the gas station, such as making a right turn or turning at a traffic light.
3. Be aware that other drivers may not see you and may not be able to stop.

Hazards

Some of the biggest hazards that result when driving conditions are less than ideal include:

1. Limits or reduces your ability to see and be seen
2. Limits or reduces your vehicle's traction
3. Limits or reduces driving space

Driving Conditions

Every day you meet different driving conditions when you drive. Even while you are driving, conditions can change quickly. Recognizing these conditions and knowing how to adjust your driving to them are in your best interest.

At least five driving conditions are beyond your control:

1. Weather
2. Light
3. Road
4. Traffic
5. Other drivers

You cannot control these conditions, but you can control how you deal with them.

The DDC Collision Prevention Formula

Remember—your best defense is to apply the three-step DDC Collision Prevention Formula to help you drive safely in poor conditions.

1. Recognize the hazards that the conditions could present.
2. Understand the defense. Slow down to a safe speed. For example, when we encounter a challenging roadway situation, our best defense is to drive at the safest speed dictated by road conditions.
3. Act correctly, in time, to avoid a hazard, collision, or violation. Increase following distance.

Weather Conditions

Now, let's take a look at weather conditions and how they can affect your driving.

Weather conditions often change fast. You may have been in a situation where it is sunny and then suddenly it starts to rain or snow. The best defense is to slow down immediately. Weather hazards include:

1. Reduced visibility
2. Reduced vehicle traction
3. Reduced steering control

Hazards that result from weather conditions include:

1. Rain
2. Fog
3. Dust
4. Snow
5. Sleet

Defensive Driving Solutions to Adverse Weather Conditions

The first step is to decide if it is absolutely necessary to drive or to continue driving. If it is safe to drive, then you should turn on your windshield wipers, use the windshield wiper fluid, and turn on your headlights.

Always clear all windows and your windshield of snow, ice, and condensation or moisture. Be sure to use the defogging and defrosting settings on the heating/cooling system.

Determine the safe speed to drive. In some conditions, even the legal speed limit is too fast.

You should use the low-beam headlights to see and to be seen. Even in foggy conditions, use the low-beam lights. High beams reflect the light directly back into our eyes. This can impair our vision.

Poor weather conditions can increase the chances of skidding or sliding. We need to recognize where and when to expect slippery conditions and know how to defend ourselves against them.

To avoid sliding or skidding:

1. Slow down.
2. Do not slam on the brakes.
3. Steer smoothly.
4. Don't turn or steer with quick motions.

Steering Out of a Skid

If your vehicle should begin to skid, what should you do?

With regular brakes, you should:

1. Ease your foot off the accelerator.
2. Keep your foot off the brake.
3. Turn the steering wheel in the direction you want the front of the vehicle to go.

For vehicles equipped with an **anti-lock brake system (ABS)**, you should still turn the steering wheel in the direction you want the front of the vehicle to go. But you should also keep your foot firmly on the brake.

Four-Wheel Drive and All-Wheel Drive

Many people drive vehicles with four-wheel drive or all-wheel drive. These vehicle features tend to lead drivers to be overconfident in their driving and their vehicle's capabilities.

Some of the “Pros” and “Cons” for driving four-wheel drive and all-wheel drive vehicles include:

Pros:

Provides better traction in starting and keeping the vehicle moving in slippery situations. If the vehicle slides, it sends power to all four wheels, increasing the chance of gripping the road.

Cons:

Does not stop the vehicle any faster than two-wheel drive; will slide like any two-wheel drive vehicle.

The Light Conditions

The next uncontrollable driving condition is light.

Too much or too little light reduces or limits your ability to see as you drive. In poor light conditions, it is important to see and be seen.

Natural and Artificial Light

Hazards that result from natural and artificial lights include:

1. Too much light
2. Too little light
3. Sun glare at sunrise or dusk
4. Snow glare
5. Work zone lights
6. Reflected light
7. High beams from oncoming vehicles
8. High beams from vehicles behind

Defensive Driving Solutions

When there is too much light, you should:

1. Use the sun visor.
2. Wear sunglasses.
3. Keep the inside and the outside of the windshield clean.
4. Increase following distance.

When there is too little light, you should:

1. Turn on low-beam lights.
2. Increase following distance.

When you approach a car using their high-beam lights, you should:

1. Look to the side of the road at the white line.
2. Do not flash your high beams back if you are less than 500 feet from an oncoming vehicle.

If the vehicle behind you is using high-beams:

1. Move your head and/or adjust your rearview mirror.

Road Conditions

Just like weather and light conditions, road conditions can change fast. The road surface, shape, and shoulder can affect conditions.

Road condition hazards include:

1. Narrow roads (shape)
2. Potholes (surface)
3. No road shoulder, or gravel shoulder
4. Winding, curving roads (shape)
5. Hilly, steep roads
6. Road construction (work zones)

Here are some defensive driving tips for dealing with poor road conditions:

1. Slow down.
2. Increase following distance.
3. Drive at the recommended speed or slower.
4. Maintain control.
5. Obey work-zone workers' instructions.
6. Keep your eyes moving and stay alert.

Drive Defensively in Work Zones

Work zones are dangerous places because so much is happening. To safely navigate through one, always slow down, stay alert and be patient. Always expect the unexpected.

Work zone hazards include:

1. Other vehicles in the traffic lanes
2. Work zone workers, equipment, and materials that may intrude into the traffic lanes
3. Altered road conditions, such as edge drop-offs, sharp turns, or sloped surfaces that affect your vehicle's stability

Traffic Conditions

Most drivers today drive in a variety of traffic conditions, both urban and rural. That is why it is important for all drivers to adjust their emotional state and driving habits to all types of traffic conditions.

Following is a list of traffic conditions that you may experience in urban and rural areas. Select Urban Area or Rural Area to identify where you are more likely to experience these traffic conditions. Click on the **Submit** button when you are done.

Urban Areas:

1. Rush hour
2. Parked cars

Rural Areas:

1. Higher speed limits

Traffic Conditions

Traffic conditions also include the different types of traffic, or traffic mix, you encounter in your everyday driving. Part of what makes traffic conditions difficult is the variety of vehicles on the road. While you can control your vehicle's conditions, you cannot control some of the more common vehicles you meet.

Here are some defensive driving tips for dealing with the various traffic conditions you may encounter on the roads.

1. Maintain proper following distance.
2. Keep alert; use the "What If?" strategy.
3. Choose the speed that is most appropriate for the traffic conditions.
4. Maintain emotional control.

Let's take a few minutes to discuss the different types of traffic we encounter in our driving every day: the traffic mix.

The traffic mix includes:

1. Emergency Vehicles
2. Larger Vehicles (Trucks)
3. School Buses
4. Trains
5. Slow-Moving Vehicles
6. Pedestrians
7. Animals

Emergency Vehicles

One common type of vehicle that affects the traffic mix is the emergency vehicle. Because we generally hear the sirens before we see the vehicle, many of us get confused. Should we stop immediately? Should we continue at the same speed? Should we pull over?

Our best defense in this situation is to cover the brake. After we have determined the location of the emergency vehicle, we can take the correct action.

If the emergency vehicle is approaching from behind, immediately:

1. Move to the lane to your right.
2. Move to the right of your lane or to the shoulder of the road.
3. If moving right is not possible, stop and stay where you are until the emergency vehicle has passed.

Larger Vehicles

Probably the most common type of large vehicle that we encounter in traffic is an 18-wheeler or any vehicle with more than four wheels.

Most people do not like to drive behind large vehicles because:

1. Visibility is limited or reduced.
2. Drivers think large vehicles are moving too slowly.

Sharing the road safely with larger vehicles means recognizing the differences between your vehicle and their's. Larger vehicles have bigger blind spots and need more time and space to:

1. Accelerate
2. Stop
3. Turn

Show courtesy around larger vehicles; help other drivers see you.

There is one very simple defense we can use to eliminate the problems in seeing around, and being seen by operators of large vehicles. That simple defense is to increase following distance.

When we are following a large vehicle, if we cannot see both of its outside mirrors, we may be in its blind spot. We need to add more following distance. Even if we can see both outside mirrors, that does not mean that the driver sees us.

Did you know that one-third of all collisions between large trucks and other vehicles happen in a truck's blind spots? Blind spots are areas all around a truck where collisions with other vehicles are more likely to occur. This is because the truck driver cannot see your vehicle.

Get "semi-smart" when driving around large trucks. Keep in mind: the larger the truck, the bigger the blind spot. If you are driving behind a large truck and cannot see at least one (if not both) of the outside mirrors on the truck, the truck driver cannot see you either. Many professional truck drivers remind you of this danger with signs on their trucks reading: "Stay out of the No-Zone."

Large vehicles also need more room to make turns. The average length of a tractor-trailer is four to five times the length of a passenger car!

There is one way to accommodate the needs of these large, turning vehicles: use more following distance. When we approach an intersection and see a truck ahead signaling a right turn, we should stay behind the truck, away from the curbside, until the turn is completed.

The larger the vehicle and the higher the speed, the longer it takes for it to stop. That is why, when passing a truck, you should allow twice the space you would allow for a car before pulling back in front of it.

For example, at 30 miles per hour, it takes a car 153 feet to stop in good conditions. However, it takes for a truck driving 30 miles per hour 177 feet to stop!

Now, consider our example at 55 miles per hour. A car takes about 346 feet to come to a complete stop. A large vehicle comes to a complete stop at 477 feet—131 feet more than a car! And these numbers represent good driving conditions.

When we are passing a large truck, we need to make sure we can see a lot of pavement in front of the truck before we pull back in front of it.

Here are some tips for driving around large vehicles on expressways and highways:

1. Let large vehicles merge.
2. Do not cut them off.
3. Slow down or change lanes if it is safe and clear to do so.

School Buses

When you see a school bus, it usually means that children are present. Children do not always use their best judgment when getting on or off a bus. However, as a driver, you should always use good judgment.

Here are some defensive driving tips for driving around school buses:

1. Always slow down.
2. If the amber lights on the bus are flashing, be prepared: the bus is about to stop.
3. If the red lights are flashing and the stop arm is extended, the bus is stopped—therefore, you must stop.
4. Do not pass a school bus with flashing red lights or an extended stop arm.

Trains

Trains are a part of the traffic mix because they intersect with roads and highways and because they affect traffic conditions.

A collision at a railroad crossing is more likely to be fatal than a collision anywhere else. Use caution when approaching any type of railroad crossing.

When approaching a railroad intersection:

1. Scan left, right, and back left again.
2. Expect a train at any time.
3. Never STOP on railroad tracks. Get out of your vehicle if it stalls on the tracks.
4. Never drive around lowered gates.
5. Watch for a second train at double or triple tracks.
6. Never try to race a train; it is traveling much faster than it appears to be, and takes much longer to stop.
7. Do not rely on warning signals to alert you to an approaching train.

Good judgment is the most important defense a driver can use when approaching a train crossing. We need to treat a railroad crossing the same way we treat other intersections. After all, a train crossing is an intersection!

Slow-Moving Vehicles

Vehicles displaying the “slow-moving vehicle” sign cannot travel faster than 25 miles per hour (40 kph).

Slow-moving vehicles include:

1. Farm equipment (tractors, combines, etc.)
2. Horse and buggy
3. ATVs
4. Road construction equipment
5. If you are going to be driving around slow-moving vehicles, you should:
6. Slow down.
7. Use the three-second minimum following distance (which will allow you to see around the vehicle).
8. Pass only when it is necessary, safe, and legal to do so.
9. Remember that these vehicles generally take up more than their fair share of the lane.
10. Give the vehicle plenty of room when going around it.
11. Be sure the slow-moving vehicle does not turn into your path as you are passing it.

Pedestrians

Pedestrians also affect traffic. Why are we talking about pedestrians as a traffic condition? Pedestrian traffic is part of all traffic. And traffic is a danger to pedestrians.

Did you know about 5,600 pedestrians are killed and 80,000 injured by vehicles each year. In addition:

1. Almost 50 percent of these pedestrian deaths and injuries occurred when pedestrians crossed or entered at or between intersections.
2. Over one-half of these victims were children under the age of 15.
3. Walking in the roadway with and against traffic, standing or playing in the roadway, and working in the roadway are other leading causes of pedestrian deaths and injuries.

Here are some tips for driving when pedestrians are in the traffic mix:

1. Be a better, safer driver by giving pedestrians a human dimension. After all, at some point, we are all pedestrians. Slow down; use the “What If?” strategy since you cannot predict what a pedestrian might do.
2. Yield the right-of-way to pedestrians in crosswalks. Be patient with elderly or disabled pedestrians; they may take longer to cross and may not be able to see or hear well.
3. Never wave pedestrians across the street. In heavy traffic areas, other drivers might not see the pedestrian crossing. Those vehicles could hit the pedestrian.
4. In residential areas and school zones, watch for children—especially on school days, holidays, or in the summer. Remember, children are unpredictable!

Animals

The last part of the traffic mix is animals—a very dangerous mix with our vehicles. Drivers cannot always predict when or where an animal might suddenly appear in the roadway.

Collisions involving direct hits or swerving to avoid an animal result in about 200 deaths and 26,000 injuries per year, according to the Centers for Disease Control and Prevention.

Large animals such as deer, bear, moose, horses, elk, and cattle are involved in many collisions.

Smaller animals such as dogs, cats, raccoons, possums, and squirrels also pose a danger as drivers may swerve to miss them.

Experts advise hitting an animal rather than trying to swerve. Swerving may be a more dangerous option as you risk running off the road. Hitting the animal is not without its risks, but may be the safer of the two options.

Here are some additional tips for driving safely around animals:

1. Take an alternate route, if possible.
2. Create as much time as possible to avoid a collision.
3. Avoid driving distractions/stay alert.
4. Drive defensively in areas where animals may be a danger.

Now we will learn defensive driving maneuvers that help drivers maintain control for each uncontrollable driving condition.

What is the best defense for dealing with all types of driving conditions? The National Safety Council recommends that you always keep a three-second following distance behind the vehicle in front of you. Why three seconds? Three seconds give you enough time to see hazards, react to them, and stop safely to avoid a collision.

The Three-Second Rule means that when the car in front of you passes an object, you pass the same object three seconds later.

1. Watch for the vehicle ahead to pass a fixed object such as a signpost, billboard, or underpass.
2. As the vehicle's rear bumper passes the object, start counting: "One thousand and one, one thousand and two, one thousand and three."
3. Your vehicle should not pass the fixed object until after you have finished counting. If it does, you are following too closely.

Whenever driving conditions are poor—heavy traffic, bad weather, or poor visibility—or as vehicle speed increases, add one or more extra seconds following distance for each hazard.

For example, if you are driving on a congested three-lane expressway during morning rush hour, going east as the sun is rising. What is the minimum number of seconds needed for following distance?

The correct answer is a minimum of five seconds. The standard three seconds, plus at least one second for the traffic conditions (heavy rush hour traffic). Plus add at least one second for the light conditions (driving east into the sun).

Summary:

To sum up we need to remember something: on a map, roads never change, but in the real world they are changing every hour of every day. Remember, you can control your vehicle, but you cannot control weather, light, road, traffic, and other drivers. The main point to remember when you drive in poor conditions is to increase your following distance.

Session 4: The Choice Is Yours

Objectives

In this session, you will learn how to:

1. List the six most common types of driving errors that contribute to collisions.
2. Identify reasons drivers choose to speed.
3. List alternatives to speeding.
4. Explain how to safely approach and proceed through all intersections.
5. Explain how to make safe and legal turns.
6. Identify the hazards involved in passing.
7. Explain how to evaluate a potential passing situation.
8. Explain the three steps needed to complete a safe pass.
9. Explain how to avoid a head-on collision.
10. Determine safe following distance.
11. It will take approximately 50 minutes to complete this session.

In this session, we will take a closer look at preventing common causes of collisions and violations.

According to the National Safety Council's annual publication, Injury Facts, these are the most common improper driving behaviors reported in collisions:

1. Improper speed.
2. Violating right-of-way.
 - A. Failure to yield.
 - B. Disregarding signals.
 - C. Passing Stop signs.
3. Driving left of center.
4. Turning improperly.
5. Passing or overtaking improperly.
6. Following too closely.

All of these improper driving behaviors are a result of drivers making bad choices or using poor judgment. Of all collisions reported, a large percent are a result of someone's choosing one of these unsafe behaviors.

Once we know how to prevent these errors, it is reasonable to assume that violations—and, therefore, collisions—can be reduced by at least the same percent.

Speeding

Speeding is a contributing factor in fatal collisions that kill about 12,000 people every year. In fact, the #1 unsafe driving behavior that contributes to collisions and violations is unsafe speed. Exceeding the posted speed limit or driving at an unsafe speed is the most common driving error.

Improper Speed

Improper speed includes:

1. Exceeding the limit
2. Driving too fast for existing conditions
3. Driving too slowly

Some hazards of excessive speed or driving too fast for conditions include:

1. Loss of control of the vehicle
2. Collisions

Have you ever received a speeding ticket?

Whether you have received a speeding ticket or not—the bottom line is that speeding doesn't pay. Everyone speeds at one time or another. Everyone is in a hurry. The benefit is just not worth it. You're not even going to save a minute of your time by going from 35 mph up to 45 mph.

People use many excuses for speeding, including:

1. I was late for work.
2. It's safer to keep up with the flow of traffic.
3. I didn't know the speed limit.
4. Everyone else was speeding.
5. It's a habit.
6. I do it all the time and nothing happens.
7. I'm a good driver.
8. It's fun to drive fast.

Myth or Fact?

There are some misconceptions about speeding that have been around for many years.

Myth Number One:

"Speed limits are guidelines, not the law." This is a myth and totally untrue.

Myth Number Two:

Speeding is not as dangerous as impaired driving or not wearing a safety belt. This is also a myth and also untrue. Speeding can be just as fatal.

Fact:

Speeding is a conscious choice made by drivers for which they are responsible. Drivers who choose excessive speed think they are taking control, but just the opposite happens. Higher speed reduces some physical control of the vehicle's steering and increases its stopping distance. This means it reduces the time a driver has to avoid a collision and increases the chance and severity of the collision.

Fact:

The faster you drive, the greater the risk to you in a collision. The laws of physics cannot be changed: The physical forces of a high-speed collision cause serious or fatal injuries to both drivers and passengers. Statistics show that when vehicle speeds increase, death rates increase.

Speed Kills

Speeding is a choice. Somewhere between our brain and our foot, we are making a conscious choice. And, we are ultimately responsible for that choice.

Drivers who use excessive speed may think they are taking control, but just the opposite is happening. They are losing control of their vehicle.

Statistics show for every 10 miles per hour (16 kph) over 50 mph (80 kph), the risk of death in a traffic collision is doubled.

Safe Speed

The best way to judge the safest speed is to:

1. Know the speed limit.
2. Assess the driving conditions.

Speed limit signs are usually posted along the road. When a sign is not posted, do not exceed the maximum speed recommended for the various types of roads in your state. These speeds are listed in your state driver's guide.

In certain conditions, the legal and posted speed limit may still be too fast. Adjust vehicle speed to those conditions that require a slower and safer speed, including:

1. Adverse weather conditions such as:
 - A. Rain
 - B. Snow
 - C. Ice
 - D. Fog
 - E. Dust
2. Smoke
3. Heavy Traffic
4. Slow-moving vehicles ahead
5. Animals, people, or cyclists on the roadway or alongside the road

Remember that all choices have consequences. If we choose to drive over the speed limit or too fast for traffic, light, weather, road, vehicle, or driver conditions, we have to deal with the consequences. And, the consequences are: getting a ticket, attending traffic school, or suffering a personal injury.

Here are some defensive driving tips to help avoid speeding on the roads:

1. Allow enough time to reach your destination. Don't rush; if you are running late, pull over to a safe area and call ahead.
2. Know the speed limit.
3. Keep checking the speedometer.
4. Reduce speed in work zones and school zones. Be cautious and alert.

Realistic Choices for Driving Within the Speed Limit

1. Drive in the far-right lane or in the lane where other vehicles are traveling at the same speed or within the speed limit.
2. If a vehicle is tailgating you, slow down to encourage the vehicle to pass. Do NOT speed up!

Driving the speed limit is critical to your safety. However, there is a flip-side to every rule or good idea in life. In this case, it is driving too slowly, because that is also a hazard.

The following reasons may be why a driver is driving too slowly.

1. Drug-impaired.
2. Overly cautious.
3. Unfamiliar with the vehicle.
4. Unsure where he or she is going.
5. Not paying attention.
6. A vehicle problem—for example, a flat tire or a breakdown.
7. Vision problems.
8. Distracted by something in the vehicle, such as using a cell phone.

The DDC Collision Prevention Formula

In the case of someone driving too slowly, the DDC Collision Prevention Formula comes into play: We have to recognize the hazard, understand our defense, and act correctly, in time.

In all of these situations, the driver may do something unpredictable—for example, swerve left or right, or drive into another lane without signaling. So you, as a responsible driver, must take reasonable actions to avoid a collision.

Some reasonable actions you can take as a responsible driver to avoid a collision when someone is driving too slowly include:

1. Do not tailgate; give the driver ahead plenty of room.
2. If possible, stay behind and wait for the driver to turn off the road or exit the highway.
3. Signal left and get around the vehicle, but only if it is safe and legal to do so.
4. If you suspect that a driver is drug-impaired, keep away from the vehicle and, if possible, report the driver to the nearest authority.

Right-of-Way

The second most common driver error contributing to collisions is right-of-way violations. More than half of all urban collisions occur at intersections. In rural areas, intersection collisions are often more serious because speed limits are higher. In fact, right-of-way violations are responsible for more injuries than any other driving behavior.

Many intersection collisions are usually a result of right-of-way violations. That means a driver thought he or she had the right-of-way. Right-of-way violations include:

1. Failure to yield.
2. Disregarding a traffic signal such as running a red light.
3. Running or rolling through a Stop sign.

No One Has The Right-Of-Way!

In addition, speeding and driving too fast for conditions often contribute to right-of-way violations.

When it comes to the right-of-way, the reality is the law gives no driver the right-of-way. Traffic regulations only state who must yield the right-of-way. So, the old notion of “having” the right-of-way is wrong—so wrong that it can kill you!

Think about how many intersections you cross every day. It’s probably more than a hundred. So, statistically speaking, your chances for a collision are highest at an intersection. In fact, in city or urban areas, more than half of all collisions occur at intersections.

What reasons do drivers typically give when they are involved in an intersection collision or violation? Here are a few:

1. “I had the right-of-way.”
2. “I didn’t see the Stop sign.”
3. “The traffic light was yellow, not red.”
4. “The sign didn’t say ‘No Turn On Red’.”
5. “No one was coming.”
6. “I didn’t think the police were around.”
7. “I was driving in the country; no one is usually out there.”

Let’s face it—these aren’t reasons; they are excuses!

The most obvious intersection safety technique is to know the laws regarding the intersection. Most of us know what all of the traffic signs mean. But there are some intersection safety skills that seem to need reviewing, because too many of us have different ideas of what should be done at intersections.\

Suppose you are the first car stopped at a traffic light. You are in the right lane and a truck is next to you in the left lane. The light turns green. The truck doesn't move. What should you do?

Should you:

1. Honk
2. Go through the intersection
3. Wait a few seconds

Honking your horn or going through the intersection are NOT the best solution. Waiting a few seconds before proceeding is the best choice.

The Delayed Acceleration Technique

To prevent collisions and violations at intersections that have traffic signals, use the delayed acceleration technique to ensure the intersection is clear before you enter it. Use this technique whether you are the first vehicle at the intersection or behind other vehicles.

When you are stopped at a traffic signal, you will be in one of two situations:

You will be the first car or there will be other cars in front of you.

If you are the first vehicle stopped at a traffic signal when the light turns green, before you accelerate, you should:

1. Scan the intersection.
2. Look left.
3. Look right.
4. Look straight ahead.
5. Scan back left again.

Keep your foot on the brake as you scan. If you don't, the driver behind you may think you are going to move and hit you. Proceed through the intersection only when it is safe and clear to do so.

This technique will delay your acceleration by two seconds and will help ensure that the intersection is clear before you enter it.

If there are other vehicles ahead of you at an intersection, you should:

1. Stop where you can see the back tires of the vehicle ahead touching the pavement.
When the traffic light turns green:
2. Look at the tires of the vehicle ahead of you; watch for the tires to begin to move forward.
3. As the vehicle begins to move, count "one thousand and one, one thousand and two" before accelerating.

Avoid Traffic Gridlock Situations

There are some "nevers" in defensive driving. Never enter an intersection you cannot exit. That causes traffic gridlock, no one can go anywhere! Wait either for the intersection to clear or for the next light. In spite of other drivers behind you who may be in a hurry, choose the safest and most courteous action for you and others.

Accelerate or Stop?

What do you do when approaching a traffic signal that has been green for a long time? You have only a split second to decide, "Do I slow down or do I go?" Next, we will show you a defensive driving technique that can help you with this decision.

Rule of Thirds

As you are approaching an intersection, divide the block into three equal sections:

1. In the first third of the block, accelerate to a safe and legal speed.
2. In the second third of the block, maintain speed, signal, and get into the appropriate lane if you are turning.
3. In the last third of the block, cover the brake with your right foot and scan left, right, ahead, and left again. If the light is still green, proceed through the intersection only if it is safe and clear to do so.

Covering the Brake

When approaching any intersection, the best way to avoid a collision is to cover the brake. Why? The normal reaction time to move your foot from the gas pedal to the brake is three-fourths of a second. Depending on your vehicle's speed, it covers a great deal of pavement in that time. Covering the brake means you will be prepared to react and stop faster in case of a hazard.

Crossing the Line

The next most common driver error is driving left-of-center. Driving left-of-center means crossing the center line of the roadway. Vehicles cross the center line for many reasons, but this driver error has a potentially fatal outcome, a head-on collision.

What do you think are the common causes of driving left-of-center or crossing the center line? Here are some very common reasons.

1. An obstruction in the road or highway
2. Impaired driving (physical and mental conditions)
3. Driving too fast for conditions
4. Fatigue or drowsiness
5. Tire blowouts
6. Pedestrians, cyclists, or animals
7. Worn or ice snow-covered center line
8. Improper turning
9. Distracted driving

To reduce your chance of facing this hazardous situation, your best defenses are to:

1. Scan ahead for debris, obstructions, or animals on the road or highway and use the "What If?" strategy.
2. Adjust driving speed to the condition of the road and use a safe following distance.
3. Drive slightly to the right of the center of your lane.
4. Avoid driver distractions such as talking on a cell phone.
5. Make safe and legal turns.
6. Stay behind pedestrians and cyclists until there's room enough to pass safely.

Another common driver error contributing to collisions and violations is improper turning. Improper turns involve turning *from* the wrong lane, turning *into* the wrong lane, and making U-turns.

Improper turns are something you, as a driver, can control and correct by learning how to make turns safely and legally. Know where you are going and use good judgment to get there.

Before making the turn, stop far enough behind the vehicle ahead so that you can see the rear tires touching the pavement.

To make safe and proper turns, you should:

1. Know where you are going.
2. Get into position to turn by getting into the correct turn lane in advance.
3. Signal your intention to turn.
4. Yield and turn from the correct lane to the correct lane. A word of caution: If you cannot see approaching traffic or are unsure of its closing speed, be patient!

Right Turns

To properly make a right turn, you should:

1. Get into position to turn.
 - A. Keep the vehicle close to the curb or road shoulder to prevent smaller vehicles, pedestrians, or cyclists from moving into the area between the vehicle and the curb.
 - B. Before turning, check to make sure the right blind spot is clear of vehicles or pedestrians.
2. Signal the turn.
 - A. Let other drivers know what you are doing: Use your turn signals.
 - B. Traffic laws differ on how many feet before the turn you need to signal. It is usually within 100 feet.
 - C. Before actually turning right ... yield to pedestrians or vehicles in the intersection.
3. Turn.
 - A. Turn into the appropriate lane without crossing into other lanes.
 - B. After turning, check blind spots and signal before changing lanes.

Left Turns

To properly make a left turn, you should:

1. Get into position to turn.
 - A. Keep your wheels pointed straight. If you are hit from behind, you will not be pushed into oncoming traffic.
2. Signal the turn.
 - A. Let other drivers know what you are doing: Use your turn signals.
 - B. Traffic laws differ on how many feet before the turn you need to signal. It is usually within 100 feet.
 - C. Before actually turning left ... yield to pedestrians or vehicles in the intersection.
3. Turn.
 - A. Turn into the appropriate lane without crossing into other lanes.
 - B. After turning, check blind spots and signal before changing lanes.

Here are some tips for making turns:

1. If you miss a turn, you should not make a U-turn. You should go around the block or use another route!
2. Directional signals are not optional equipment on our vehicles. Being a defensive driver also means being a courteous driver. Show other drivers your intentions by using your directional signals.

If you practice these simple techniques and make them habits in your driving, you will improve your chances of avoiding a collision or violation when driving through intersections.

Passing

Next, we will identify the hazards involved in passing.

1. Explain how to evaluate a potential passing situation.
2. Explain the three steps needed to complete a safe pass.
3. Explain how to avoid a head-on collision.

The fifth unsafe driving behavior is passing or overtaking improperly. Although passing other vehicles is a common driving task, some drivers choose risky behaviors when doing so. Examples include: passing at high speeds, cutting off other drivers, and weaving in and out of traffic.

Three types of collisions can result from making unsafe passes:

1. Getting sideswiped
2. Getting run off the road
3. Getting hit head on

Why do drivers choose to overtake or make risky or illegal passes?

Here are some of the reasons drivers can control or change.

1. They are late for work or appointments.
2. There is an emergency.
3. They habitually take risks.
4. They think that another driver is moving too slowly.
5. They want to be first in line.
6. They are unaware of no-passing zones.

Before starting a pass or overtaking another vehicle, the first major step is to decide: "Do I really need to pass?"

To answer this question, you must:

Check your following distance.

1. Are you at least 3 seconds behind the vehicle in front of you?
2. Is that vehicle traveling at a reasonable speed?

Check your speed.

Will you need to increase to an unsafe speed, or over the legal limit to pass, or overtake another vehicle?

Answering "yes" to these questions means you probably do not need to pass.

If the pass is necessary, safe *and* legal, taking a few additional steps will make the pass a success.

Step 1. Maintain proper following-distance.

1. Use the three-second following distance rule.
2. Look ahead to check whether there is enough time and distance to pass.
3. Look behind to be sure no one is attempting to pass.
4. Signal left to show your intentions.
5. Check the blind spots. Remember, traffic blind spots are areas that are behind and on either side of us that cannot be seen with the use of mirrors.

Step 2. Move left into the passing lane.

1. Move left completely into the passing lane.
2. Increase speed, but not over the legal limit.
3. Pass the vehicle.
4. Signal your intention to return to the right lane.
5. Check your blind spot on the right before moving.

Step 3. Complete the pass.

1. Move right.

It is safe to move right when the pavement in front of the vehicle being passed can be seen in the inside rear-view mirror. If passing larger vehicles, leave even more distance when returning to the right lane.

2. Cancel your signal.
3. Maintain proper speed.

The bottom line is that the best defense to use before making a pass or overtaking another vehicle is to:

1. Learn where it is legal and illegal to pass.
2. Wait until it is safe and legal to pass.
3. Develop safe-passing judgment.

Avoiding a Head-On Collision

A head-on collision is the most fatal type of collision. When another vehicle is headed straight at you, you only have a few seconds to decide what to do to get out of the way.

The National Safety Council has developed a lifesaving method for drivers to use to avoid a head-on collision. It is called the Four Rs: **Read**, **Right**, **Reduce**, and **Ride**.

Many drivers do not react appropriately when facing an oncoming vehicle in their lane. Their immediate reactions often include:

1. Driving to the left lane to avoid the oncoming driver.
2. Stopping completely.
3. Swerving off the road.

Let's take a look at each of these and what you can do as an alternative.

Many drivers drive into the left lane to avoid the oncoming driver.

As an alternative, you should:

Drive right, onto the shoulder.

Never swerve into the left lane. If the other driver recovers, you will have a collision in that lane.

Many drivers stop their vehicles completely or swerve off the road.

As an alternative, you should:

Drive, don't swerve, off the road.

1. Never stop your vehicle. If you stop completely, you may get hit by the driver behind you. Then you have the potential of being pushed forward into the oncoming driver resulting in a rear-end AND a head-on collision.
2. To keep control of your vehicle when driving onto the shoulder, reduce your speed gradually. Do NOT slam on the brakes and try to steer your vehicle onto the shoulder.

Hit something soft, not hard.

If you have to hit an object that is in your path, choose a soft object such as shrubs or bushes. Avoid hard objects like trees or concrete barriers.

Hit with a glancing blow.

If you cannot avoid hitting an object, avoid striking it head-on. Instead, hit it at an angle or with a glancing blow. Remember, the force of impact is greater in a head-on collision.

Following Distance

Following too closely, or tailgating, is the final unsafe driving behavior that results in many collisions and violations. Whether it is a bad habit or not realizing the danger, the biggest hazard is a rear-end collision.

Listed below are some reasons that drivers follow too closely.

1. They want the drivers ahead to get out of the way.
2. They think they can stop faster than they actually can.
3. They think their response time is good.
4. They have developed a habit of driving that way.
5. They don't know any better.

The reality of the situation is that physics plays an important part in how fast a vehicle stops, and driver conditions influence how fast the driver can respond.

Stopping Distance Facts

There are three factors that influence how long it takes your vehicle to stop.

1. Perception time and distance
2. Reaction time and distance
3. Braking distance

Perception distance is the distance the vehicle travels from the moment the event occurs—such as the brake lights ahead come on—until the driver sees it and becomes aware of the danger. This distance is measured in feet.

Highway engineers have designed our roadways using 1.75 seconds as an average perception time. This time is based on a focused driver who is not distracted—using a cell phone, looking in the mirror, or talking with a passenger. All of these distractions would make the perception time longer.

Reaction distance is the distance the vehicle travels while the driver is moving his or her foot from the accelerator to the brake pedal. Reaction distance is measured in feet and it depends on the driver's reaction time.

A driver in good mental and physical condition has an average reaction time of .75 (three-fourths) of a second.

This is how reaction distance is calculated: Add the first digit of your speedometer reading to your total speed per hour. For example:

At 55 mph (88 kph), you will travel 60 feet (19 meters) between the time you recognize a hazard and get your foot to the brake—not stopping—just getting your foot to the brake.

Braking distance is the distance the vehicle travels from the time the brake is applied until the vehicle stops. Braking distance is affected by speed. The faster our speed, the greater our braking distance.

It is important to mention here that anti-lock brakes do NOT reduce braking distance. In fact, a vehicle equipped with anti-lock brakes may require a longer distance to stop. Anti-lock brakes are designed to prevent the wheels from locking in a hard-braking or emergency driving situation. They also help maintain control and keep the vehicle moving in a straight line rather than skidding or spinning with non-anti-lock brakes.

Anti-Lock Brakes

Many collisions have occurred as a result of drivers' improper use of anti-lock brakes. In an emergency-braking situation, the anti-lock brakes must be pressed very firmly. The driver will feel the pumping action of the brakes.

The pulsating of the brake, together with a slight ticking or popping noise, is normal. Do not pump anti-lock brakes. They are designed to do the pumping for us to prevent wheel lock-up.

Anti-lock brakes cannot make up for road conditions or bad judgment. It is still our responsibility to drive at speeds reasonable for the conditions and to use a safe following distance.

Stopping distances for vehicles depend on many factors:

1. Vehicle weight
2. Road surface
3. Driver condition
4. Weather conditions

The higher the speed of the vehicle, the longer it takes to stop. It takes even longer to stop when the driver, vehicle, and driving conditions are not ideal. When you recognize how long it actually takes to stop your vehicle, you should know enough not to tailgate.

Stopping Distance

By applying the stopping distance formula, the minimum stopping distance at 40 mph is:

Perception distance 103 feet

Reaction distance + 44 feet

Braking distance + 76 feet

For a total of 223 feet

By applying the stopping distance formula, the minimum stopping distance at 65 mph is:

Perception distance 167 feet

Reaction distance + 72 feet

Braking distance + 201 feet

For a total of 440 feet or more than 100 feet longer than the length of a football field.

Knowing the stopping distance is important because:

1. It illustrates the point that the higher the speed, the longer it takes to stop.
2. It illustrates the need to use a safe and proper following distance to avoid rear-end collisions. And, remember, that's three seconds in good conditions!

The Three-Second Plus Rule

As we have already learned, to avoid collisions resulting from following too closely, keep at least three seconds of following distance in good conditions. But, what should you do when your emotional and physical condition is not at peak performance level?

Use the three-second-plus following distance rule. That means for every poor condition, add one or more seconds of following distance to the baseline of three seconds.

For example:

If you are feeling ill, tired, or stressed,

Then add at least **1** more second

To equal **4** seconds total following distance.

If you are feeling stressed and tired,

Then add at least **2** more seconds

To equal **5** seconds total following distance.

Previously, we discussed following distances in other types of poor conditions such as: weather, light, road, vehicle, and traffic conditions. For each poor condition, we need at least three seconds of following distance and we need to add one more second for each poor condition. That is why the Three-Second Plus Rule is important to know!

Summary

In this session, you have learned how to:

1. List the six most common types of driving errors that contribute to collisions.
2. Identify reasons drivers choose to speed.
3. List alternatives to speeding.
4. Explain how to safely approach and proceed through all intersections.
5. Explain how to make safe and legal turns.
6. Identify the hazards involved in passing.
7. Explain how to evaluate a potential passing situation.
8. Explain the three steps needed to complete a safe pass.
9. Explain how to avoid a head-on collision.
10. Determine safe following distance.

Session 5: Infection Control When Transporting a Patient

In this session, you will learn how to:

1. Describe how bloodborne diseases are transmitted
2. List the common body fluids that contain other potentially infectious material (OPIM)
3. Identify three risk areas that affect the risk of pathogen exposure
4. Identify ways to prevent exposure to bloodborne pathogens
5. Describe what to do if you are exposed to blood or other potentially infectious material (OPIM)

The U. S. Occupational Safety and Health Administration (OSHA) creates and enforces safety standards for workplaces. The Occupational Exposure to Bloodborne Pathogens Standard was designed to eliminate or reduce employees' exposure to human blood and other potentially infectious materials (OPIM) in the workplace. This standard went into effect in 1992. It applies to all employees who may reasonably expect to be exposed to blood or OPIM that may contain pathogens while they are working.

Next we will learn how bloodborne diseases are transmitted.

Pathogens are germs that cause disease. Bloodborne pathogens are germs transmitted from one person to another through contact with blood or OPIM. The Standard protects anyone whose job involves handling or possibly being exposed to blood or OPIM.

Because you transport sick patients to and from Veteran's Administration facilities, you should know how bloodborne diseases are transmitted and what measures you can take to prevent exposure. You also should know what to do if you have an exposure to blood or OPIM.

Preventing transmission of infectious disease is based on understanding how disease is transmitted. The process has four stages.

1. The process begins with someone who has the infection.
2. The infectious pathogen (disease-causing bacteria, virus, fungus or parasite) leaves the infected person's body. For example, a person may bleed from a cut and in that person's blood is the pathogen or the person may sneeze or cough out little droplets carrying the pathogen.
3. The infectious pathogen reaches another person and enters his or her body. This can happen in a number of ways:
 - A. The person may come into contact with the infected person's blood, other body fluid or infectious material, by the pathogen enters his or her body through mucus membranes (in the eyes, nose, or mouth) or skin that is not intact. This is called **bloodborne transmission**.
 - B. The person may inhale the pathogen in tiny droplets in the air. This is called **airborne transmission**.
 - C. The person may be bitten by an insect such as a tick or mosquito that is carrying the pathogen. This is called **vector transmission**.
4. The second person then develops the infection.

Just having the pathogen enter the body does not mean a person will become ill. He or she may have been vaccinated against the disease, which means the body will kill the infection before it can cause the disease. A person's natural immune system may be able to kill some pathogens and thus prevent illness. Or a person may become infected. The process then starts all over again.

Common serious bloodborne pathogens that may be encountered in the workplace are:

1. Hepatitis B virus (HBV)
2. Hepatitis C virus (HCV)
3. Human immunodeficiency virus (HIV) which causes acquired immunodeficiency virus (AIDS)

Next you will learn how to List the common body fluids that contain other potentially infectious material (OPIM).

Both blood and other potentially infectious materials (OPIM) may contain bloodborne pathogens. According to the OSHA Standard, OPIM may include these human body fluids and anything contaminated with them:

1. Saliva containing blood
2. Semen and vaginal secretions
3. Breast milk
4. The fluid in the uterus around the fetus
5. The fluid that surrounds the spinal cord and brain
6. The fluid contained in the abdomen
7. The fluid between the linings of the lungs
8. The fluid surrounding the heart
9. Any body fluid visibly contaminated with blood such as vomit and urine.
10. Unfixed tissues (acne, burns, rashes, etc.) or organs from a human

Now we will review how to identify three risk areas that affect the risk of pathogen exposure.

Exposures do not always cause infections. The risk of infection following an exposure to blood or another body fluid depends on many factors including:

1. Whether pathogens are present in the source blood or body fluid
2. The type of injury or exposure
3. Your current health and immunization status

Even if the source person's blood or OPIM do contain pathogens, you are not necessarily infected. But to be safe, always assume an exposure is potentially infectious and take measures to prevent exposures from happening.

The next topic in this session is how to identify ways to prevent exposure to bloodborne pathogens.

The OSHA standard requires employers to reduce work-related exposure to bloodborne pathogens in four ways:

1. Engineering controls
2. Work practice controls
3. Personal protective equipment
4. Universal precautions

Engineering controls are devices that isolate or remove the bloodborne pathogen hazard from the workplace. Examples of engineering controls that apply to non-healthcare workers as well as healthcare workers include eye wash stations, hand washing facilities, and warning labels.

When possible, hand washing facilities must be provided for all employees. When not possible, antiseptic hand cleanser may be provided instead. Eye wash stations should be available when appropriate for flushing contaminants from the eyes.

Work practice controls are controls that reduce the likelihood of exposure by altering the way in which a task is performed. Work practice controls might include using personal protective equipment (PPE), hand washing, and decontaminating and sterilizing equipment and areas.

Hand washing is a simple but very important step for preventing the transmission of bloodborne pathogens.

Surfaces on your van may become contaminated with blood or OPIM. These surfaces must be decontaminated to reduce the chance of exposure to others who may touch these surfaces. Check with the transportation office on which supplies to use to decontaminate your vehicle if necessary. In general, to clean up a contaminated surface:

1. Wear heavy utility gloves to protect yourself while cleaning the spill.
2. Bring supplies and hazardous waste containers to the location of the spill.
3. Wipe up the spill with paper towels and dispose of them in a biohazard container.
4. Clean the area thoroughly and disinfect the area with an approved disinfectant.
5. Remove your gloves and wash your hands.

When working in an area where bloodborne pathogen exposure may occur, prevent entry of pathogens into your mouth or eyes by keeping your hands away from your face.

1. Do not smoke
2. Do not put on lip balm, hand lotion, or cosmetics
3. Do not eat or drink
4. Do not handle your contact lenses
5. Do not put pencils, pens, or other objects in your mouth where potentially infectious materials may be present
6. Do not use a sink that is used for food preparation for any other cleanup

Personal protective equipment consists of barriers such as gloves, face masks or face shields, eye shields or goggles that you wear to protect yourself from exposure to blood and OPIM. In any situation where exposure to bloodborne pathogens is a possibility, wear your PPE.

The Standard requires your employer to provide you with appropriate PPE at no cost to you. The most likely PPE you will need for transporting patients is medical exam gloves if you will be in contact with patient blood. These gloves are made of nitrile, vinyl, latex or other waterproof protection.

When using gloves, remember the following:

1. Check that your gloves are intact
2. Not use petroleum-based hand lotions
3. Remove contaminated gloves carefully
4. Dispose of gloves properly

Universal precautions is a phrase describing safety guidelines in which all blood and OPIM are handled as if they are contaminated. Under universal precautions, you treat all materials as if they are infected with bloodborne pathogens.

Now you will learn how to describe what to do if you are exposed to blood or other potentially infectious material (OPIM)

Even when you follow all safety guidelines and universal precautions, an unexpected exposure can occur. If so, both you and your employer need to take immediate action. The safety office is required to tell you how to make an incident report in case you are exposed. By law, employers must maintain strict confidentiality about any exposure incident.

After receiving your report, the safety office staff will:

1. Identify and document the person or other source of the blood or OPIM
2. Obtain consent to test the source person's blood and arrange for testing the person (unless he or she is already known to be infectious)
3. Inform you of the test results
4. Arrange for you to have your blood tested if you consent
5. Arrange for you to receive counseling and medical care as needed

OSHA requires employers to have an **exposure control plan** to prevent exposure to bloodborne pathogens. This plan should:

1. Identify the job positions and individuals to receive training
2. Establish engineering controls and work practice controls
3. Specify PPE to be used
4. Require using universal precautions
5. State the opportunity for hepatitis B vaccination
6. Include other measures appropriate for your specific work environment

The exposure control plan is reviewed and updated at least once per year. You have a right to see the exposure control plan. Contact the safety office for more information.

This segment of your Defensive Driving course has discussed infection control when you are transporting a patient. It has covered how bloodborne diseases are transmitted and what measures you can take to prevent exposure. It also covered what to do if you have an exposure to blood or OPIM.

By following these safe practices, you can prevent transmission of bloodborne pathogens.

In this session, you learned how to:

1. Describe how bloodborne diseases are transmitted
2. List the common body fluids that contain other potentially infectious material (OPIM)
3. Identify three risk areas that affect the risk of pathogen exposure
4. Identify ways to prevent exposure to bloodborne pathogens
5. Describe what to do if you are exposed to blood or other potentially infectious material (OPIM)

SESSION 6: Safely Managing Oxygen Cylinders During Patient Transport

In this session, you will learn how to:

1. Identify the hazards of transporting oxygen.
2. Describe the safe way of transporting oxygen in a vehicle.

Some patients you transport will be using oxygen to ease their breathing. This portion of the Defensive Driving course will give you information about the hazards of transporting oxygen. It will also tell you the safest way to transport oxygen cylinders in your vehicle.

Identifying the hazards of transporting oxygen.

All compressed gases may pose hazards when they are transported. For example, a cylinder that is unsecured or improperly secured could become dislodged while you are driving and create a hazard to you, your passengers, and to others on the roadway. You may become distracted and take your eyes off the road. The patient you are transporting may be cut off from the oxygen they depend on. There also is the danger of fire and explosion from oxygen enrichment.

Because of these hazards, the Occupational Safety and Health Administration (OSHA) has requirements for safe storage of cylinders and the U.S. Department of Transportation (DOT) has regulations for transporting them. Also, the Compressed Gas Association (CGA) posts information about the safe transportation of gas cylinders in passenger vehicles.

The following are steps you can take to lessen the risks involved with transporting oxygen cylinders. They are based on OSHA and DOT regulations and CGA recommendations.

1. Read the product label to identify the related hazards before loading the cylinder. Follow the equipment supplier's instructions for proper use and storage for the cylinder.

Listen for leaks. Visually inspect the cylinder for dents, gouges or pits. Do not transport damaged cylinders.

2. Make sure the cylinder is secured within the vehicle. Use a ring or mounting bracket that is secured to either the vehicle floor or the vehicle's side wall to hold the oxygen cylinder. Place the cylinder into the ring or mounting bracket in an upright position.

Never handle cylinders with oily hands or gloves. A possible chemical reaction could happen as a result.

Never carry the cylinder by the valve system. It is illegal—and dangerous—to “walk the cylinder” in this way. Hold the body of the cylinder, not the valve system, when moving it into and out of your vehicle.

3. DO NOT SMOKE when handling or transporting oxygen cylinders.
4. Take a route to the destination that is most direct with minimal stops in between. If possible, avoid routes with heavy traffic.
5. Remove the cylinder from the vehicle when you reach the destination.

Good ventilation in case of a cylinder leak, securing the cylinder during transportation, and following the other safe practices listed in this presentation will allow you to transport patients who need oxygen to and from their destinations safely.

In this session, you learned how to:

1. Identify the hazards of transporting oxygen.
2. Describe the safe way of transporting oxygen in a vehicle.

Session7: Conclusion

Making Decisions

People in the “real” driving world are faced with making decisions—decisions that could have a positive or negative outcome.

Most people have not been to a defensive driving course such as this one. Consequently, their decisions are based largely on how they feel or their reactions to what is happening around them. Some of them do not know what we know about maintaining control. Many of them simply do not see that they have choices and that the choices they are making affect many other people.

1. Throughout this course, we have emphasized some important points about our control and responsibility as drivers. Think about each of these points when you get behind the wheel:
2. You are the only person who can control your behavior behind the wheel.
3. Make your own decisions and do not give up control of your vehicle to other drivers or to random emotions.
4. Even though there are driving conditions you cannot control (weather, light, road, traffic, and other drivers), you can control your actions and how you deal with those conditions.
5. For every driving decision you make, there are consequences. The consequences of safe driving decisions are that you will make it to your destination safely.
6. The consequences of poor driving decisions can range from a traffic violation to a crash, injury, or even a fatality.

Make It a Habit

Being a defensive driver involves making it a habit every time you drive.

The Seven Habits of Defensive Driving:

1. Always wear your safety belt.
2. Evaluate the driving conditions, including your own condition, before driving. Continue evaluating the conditions block-by-block and mile-by-mile.
3. Scan the street and road ahead. Use the “What If” strategy to recognize hazards.
4. Always maintain personal control, no matter what other drivers do.
5. Follow the three-second and three-second plus following distance rules.
6. Always have a plan for any hazardous situation. Remember: RUA safe driver? Recognize the hazard, understand the defense and act correctly, in time.
7. Be patient with other drivers. Show courtesy, respect, and dignity.

Taking Chances

Not all cases of bad judgment or unsafe driving have horrible consequences. However, the chances of having something happen to us eventually are very high if you choose unsafe driving behaviors.

Some of you are lucky that a police officer stopped you before your actions resulted in killing or injuring yourself or someone else. You are also lucky because you have been given a second chance.

What's next?

When you complete this course, and head out back on the roads, you will have dozens of thoughts on your mind—people to see, places to go, deadlines to meet. They involve the people you love, the jobs you hold, and the goals you have set for yourself.

Just remember, not one of those things is going to happen unless you get there to make it happen. Driving defensively is your best chance of getting there, and getting there starts the moment you turn that ignition key.

You may think this sounds a little melodramatic—but it's not! Not if you have ever seen a serious traffic collision. Not if you have ever seen the loss of limbs or lives that those collisions can cause.

CONGRATULATIONS! You have completed the internet based portion of the National Safety Council's Defensive Driving Course.