

# Driving Defensively

## Defensive Drivers Have Common Characteristics

1. Foresight to recognize hazards in advance
2. Judgment to decide safest action
3. Skill to carry out action
4. Attentiveness at all times
5. Making good choices



- Every 12 minutes someone dies in a motor vehicle crash, every 14 seconds an injury occurs and every 5 seconds a crash occurs. Many of these incidents occur during the workday or during the commute to and from work. Experts estimate that more than two-thirds of all accidents are caused by driver error.
- Motor vehicle crashes are a leading cause of death and injury for all ages. Crashes on and off the job have a far-reaching financial and psychological effects on employees, their co-workers, their families and their employers.
- Statistics show that in 1999, more than 2.2 million people were seriously injured in traffic collisions and more than 41,300 people were killed.



The real tragedy is that these crashes are largely preventable. You can reduce your risk of accidents, injuries and fatalities by driving safely and by knowing how to react in an emergency situation. According to the NSC (National Safety Council) more than two-thirds of all accidents are caused by driver error. This means that out of the 11 million accidents on average that occur each year, about 7 million could be prevented if all drivers improved their foresight, alertness, judgment and skills.

## **Eight Most Common Driving Errors:**

- Passing improperly
- Following too closely
- Improper backing
- Distracted and drowsy driving
- Speeding
- Right of way violations
- Turning improperly
- Driving left of center

## **Safety is in our own control - There are two conditions we can control:**

1. Ourselves (your own actions)
2. Our vehicles

## **Control Your Speed**

The next time you are in a vehicle that is exceeding the speed limit, consider this; the chances of death or serious injury doubles with every 10 MPH driven over 50 MPH.



Speed is the one factor that intensifies every physical force involved in a crash. Speed automatically decreases the amount of time and distance available to react. Speed increases the force of impact that results in more severe injuries. As the speed of your vehicle increases, the safety benefits of seat belts, air bags and other occupant protective devices is lessened.

## **Excessive speed is the quickest route to a vehicle crash. To prevent collisions, injuries and fatalities:**

- Travel at speeds well within the limits of the law
- Reduce your speed to compensate for road conditions and inclement weather
- Follow the posted speed limit when driving in a marked school zone
- Always slow down when there are pedestrians and bicyclists near you
- Pay attention to the speed limit and your speed
- Pay attention to traffic around you and down the road in front of you

## Speeding Statistics

- 30% of all fatal crashes involve one or more speeding driver
- Costs of speed related crashes are estimated at more than \$29 billion per year
- Health care costs alone average \$4 billion per year
- 84% of speeding drivers killed were male and between the ages of 15 to 34 years old
- 25% of male drivers involved in fatal crashes were speeding compared to 16% for females

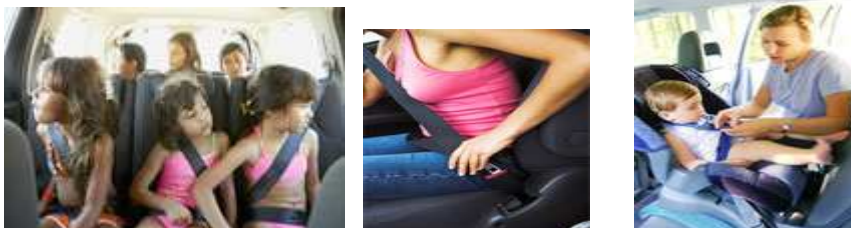


## Protecting Yourself and your Occupants

- Most vehicles today have seat belts and shoulder harnesses installed for both front and rear seat passengers. Safety belts and shoulder harnesses greatly reduce the severity of injuries and the likelihood of death resulting from traffic crashes. When used, lap and shoulder belts reduce the risk of fatal or serious occupant injury by 40 – 50 percent.
- Many newer vehicles come equipped with air bags installed in the steering mechanism that are designed to immediately inflate in a front end collision. Air bags are not a substitute for seat belts, but rather assist in lessening injuries to the head and upper body. Seat belts and shoulder harnesses protect the whole body for collisions from rear, either side and front.



If you travel with babies or small children, make sure the baby seat and booster seat/s are compliant with your vehicle and with today's standards





## Seat Belt Use

Seat belts are the single most effective means of reducing deaths and serious injuries in traffic crashes. As the most effective safety device in vehicles, they save nearly 12,000 lives and prevent 325,000 serious injuries in America each year. During a crash, anyone not wearing a seat belt will slam into the steering wheel, windshield, or other parts of the interior, or be ejected from the vehicle.

- Always wear your seat belt and make sure all passengers in your vehicle buckle up also.
- When Seat belts are worn properly they will keep you from being thrown forward or out of your vehicle in the even of an accident. In a high speed collision or roll over, the seat belt will keep you inside the vehicle which is usually the safest place to be.
- Seat belts also keep you in the proper position when driving on bumpy or twisting roadways
- Most collisions occur close to home or work and at speeds less than 40 MPH
- Wear your seat belt even when traveling short distances or at low speeds

### Other Ways to Protect Yourself and your Occupants:

- Do not tailgate
- Do not switch lanes without signaling
- Avoid blocking turning lanes
- If you travel slowly, pull over and allow traffic to pass
- Avoid unnecessary use of high beam headlights
- Do not drink alcohol, take drugs or medications and drive
- Don't drive tired
- Do not make obscene gestures
- Use your horn sparingly
- Do not allow your door to hit the car parked next to you
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## Secure Materials for Transport

Tools or equipment should be secured while being transported to prevent unsafe movement of materials. During a crash or when making sudden maneuvers, loose objects can slide around or become airborne, injuring the driver and any passengers. Objects that

could become a hazard should be secured or stored outside the passenger compartment. Never overload a cargo area, it is a danger to your and others on the road.



### **Eliminate distractions**

- Do not let the car phone distract you,
- Don't apply make-up, comb your hair or eat while driving (pull over to do any of these)
- Don't subject loud music on neighboring vehicles
- Don't stop in the road to speak to a pedestrian or another driver
- Do not assume another drivers' mistakes are personal, because they usually are not
- Always be polite and courteous even if the other driver is not
- Improve the comfort in your vehicle
- Avoid all conflict if possible. If another driver challenges you, take a deep breath and get out of the way



### **Keeping Your Vehicle Well Maintained and in Good Working Order**

One way to reduce your chance of collisions is to make sure your vehicle is safe to drive. Regular maintenance not only reduces the potential for collisions it can also prolong the life of your vehicle. During winter months in some climates it is not always possible to check recommended points and parts on a daily basis. One should always make an attempt to ensure their vehicle is safe before starting the next day's drive.

- Recommended daily inspection checks include:
- Body or trim damage
- Loose parts
- Cracked lights
- Cracked windows
- All exterior lights
- Tire inflation, condition and tread depths
- Doors
- Wipers
- Look for leaks under the vehicle
- Exterior mirrors
- Fluid levels
- Horn
- Turn signals
- Brake lights

If you drive a company vehicle, the company policy may require you to fill out a daily inspection check list, and turn them in weekly.



### Proper Backing Procedures



Improper backing accounts for 40 % of organizational driving accidents

**How to eliminate accidents attributed to improper backing:**

- Don't back up if you do not have to – Try to plan your excursion so that you can avoid backing up whenever possible. Look for parking areas where you can pull in and out of spots as opposed to backing out. Stay away from pedestrian pathways so you won't cross them if backing up.
- Get out and walk around your vehicle before starting to back up. Check to ensure there is enough clearance above, below and on each side
- Be 100 % sure there are no pedestrians behind you
- Use a spotter if possible especially for vans, box trucks, extended trucks and large trucks
- Check for blind spots and both sides of your vehicle
- Do not rely solely on backup alarms and mirrors. Keep in mind the situation can change in seconds
- Turn down your radio so you can hear your surroundings
- Proceed with caution, looking in your rear and side view mirrors. Watch the front end swing of your vehicle, and check for approaching traffic or pedestrians from either side



### Scenario point to ponder

You need to pick up a passenger at the front door of a house. Should you back into the driveway or pull into the driveway? Remember if you pull into the driveway, then you will need to back out into the street. One of the situations is more likely to change quickly. The drive way will not change, but the street may have a situation change. It would be better to back into the driveway, so you have a clear view of the street when you pull out.

### Following Too Closely – Maintaining a Safe Distance

There are no good reasons for tailgating – don't do it.



- In an emergency situation, each fraction of a second that it takes to react, brake and come to a stop can cost you valuable feet of roadway.
- It is estimated that one in four accidents result from following too closely to the vehicle in front.
- It is critical to maintain a safe distance

**Defensive driving steps when being tailgated:**

- Increase following distance without exceeding the speed limit
- Slow down to allow them to pass you
- If it is safe for you, pull over and let them pass
- Never unnecessarily step on your brake, this can aggravate the driver behind you

**Use the 3 second rule**

- If you stay at least 3 seconds behind the vehicle in front of you, your stopping distance should be adequate
- Find a fixed object on the road ahead of you to gauge the vehicle ahead
- Count “one thousand one”, “one thousand two”, and “one thousand three”
- If you pass the fixed object before you have finished counting – You are too close
- This rule is meant for peak performance and good dry road conditions



**In adverse road conditions use 3 second + rule: add at least one second additional for each surrounding hazard, for example:**

If being tailgated add 2 seconds for a total of 5 seconds

Fog – add 1 second for a total of 4 seconds

Following a motorcycle – add one second for a total of 4 seconds

Following a truck in the rain – add 1 second for loss of traction and 1 second for poor visibility for a total of 5 seconds

Larger vehicles always need more than 3 seconds – use the 4-6 second rule

Always compensate for road conditions. Stretches of bumpy road and potholes, limit the time your tires contact the pavement that can double the distance it takes you to stop. Ice, snow, rain and mud multiply stopping distance up to **10 times**



## Cushion of Safety

The area around your vehicle that we should try to keep free of other vehicles, objects and pedestrians



### Three areas comprise your vehicles Cushion of Safety

1. Area from your vehicle to vehicle ahead “following distance”
2. Area from your vehicle to vehicle behind
3. The areas from both sides of your vehicle

### There are four driving conditions that we cannot control

1. Other drivers and their actions
2. Traffic – conditions vary based on location – make sure that you adjust your mental attitude and frame of mind when driving in various locations and situations
3. Weather – weather conditions rapidly change – you need to adapt accordingly and be cautious – REMEMBER – The best advice for driving under adverse weather conditions is to SLOW DOWN !
4. Road conditions

### Reaction Time:

Do you know what the typical reaction time is from the time you see a road occurrence to when you actually touch the brake?

There is usually an interval of  $\frac{3}{4}$  of a second between seeing a road occurrence and the time you touch the brake

### Stopping Distance

Stopping Distance = the distance traveled from the initial perception of a hazard to the time it takes the vehicle to stop

A useful rule of thumb for calculating your stopping distance is your speed multiplied by the 1<sup>st</sup> digit of your speed At 30 MPH the calculation is  $30 \times 3 = 90$  Feet



## Two “MOMENTS” comprise Total Stopping Distance

### Perception and reaction distance:

- The distance your vehicle travels in the time it takes the brain to recognize the hazard and to tell the foot to push the brake pedal (0.75 seconds) – At 55 MPH, this distance would be 60 feet

### Braking Distance:

- The distance it takes the vehicle to stop
- Affected by size of vehicle, weather conditions, road conditions

The front axle does 75% of the braking in all vehicles because of the weight transfer (when the weight transferred from the rear to the front of the vehicle). You will wear out twice as many front brakes as rear brakes. Another reason to stay on top of your vehicles maintenance



## Anti-Lock Brake Systems

- If you have been stuck on ice, you know that if your wheels are spinning you have no traction. This is because the contact patch is sliding relative to the ice.
- By keeping the wheels from skidding while you slow down, anti-lock brakes benefit you in two ways:
  1. You will stop faster
  2. You will be able to steer while you stop

## Driving With Reduced Visibility

### Driving in reduced visibility conditions

- Reduced visibility conditions include twilight, darkness, rain, snow, fog, smoke, and bright sunshine.

- Use moderation in judging a safe speed. Drive slow enough to maintain a safe stopping distance.
- Don't slow down so much that you become a risk to other drivers.
- Be aware that in reduced visibility conditions, drivers tend to follow the tail lights of vehicles in front of them.
- If you must pull off of the road, pull as far off of the road as possible, turn off your headlights, take your foot off of the brake pedal, and turn on your hazard lights.
- Make sure you have a pair of sunglasses in your vehicle in case of bright sunlight

## Driving in Fog

Fog can be thought of as a cloud at ground level. It forms when the temperature drops to the dew point (the temperature at which air is saturated), and invisible water vapor in the air condenses to form suspended water droplets. Fog can reduce visibility to 1/4 mile or less, creating hazardous driving conditions. If you can't postpone your trip until dense fog lifts -- usually by late morning or the afternoon -- follow these tips:



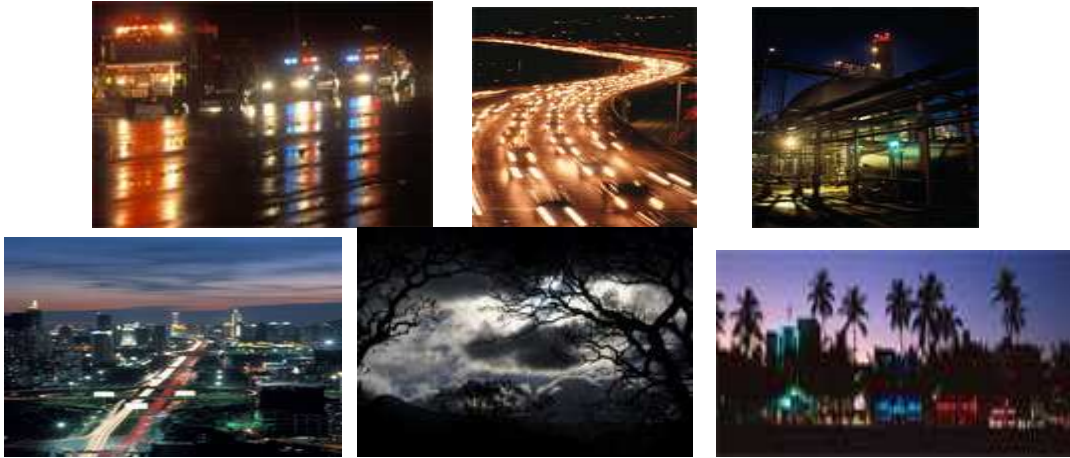
## Foggy Conditions

- Drive with lights on low beam. High beams will only be reflected back off the fog and actually impair visibility even more.
- Reduce your speed -- and watch your speedometer. Fog creates a visual illusion of slow motion when you may actually be speeding.
- Listen for traffic you cannot see. Open your window a little, to hear better.
- Use wipers and defrosters as necessary for maximum visibility.
- Use the right edge of the road or painted road markings as a guide.
- Be patient. Do not pass lines of traffic.
- Do not stop on a freeway or heavily traveled road. If your car stalls or becomes disabled, turn your vehicle's lights off, and take your foot off of the brake pedal. People tend to follow tail lights when driving in fog. Move away from the vehicle to avoid injury.

## Driving at Night

- Traffic death rates are three times greater at night than during the day, according to the National Safety Council. Yet many of us are unaware of night driving's special hazards or don't know effective ways to deal with them.

- Why is night driving so dangerous? One obvious answer is darkness. Ninety percent of a driver's reaction depends on vision, and vision is severely limited at night. Depth perception, color recognition, and peripheral vision are compromised after sundown.
- Older drivers have even greater difficulties seeing at night. A 50-year-old driver may need twice as much light to see as well as a 30-year old.
- Another factor adding danger to night driving is fatigue. Drowsiness makes driving more difficult by dulling concentration and slowing reaction time.
- Alcohol is a leading factor in fatal traffic crashes, playing a part in about half of all motor vehicle-related deaths. That makes weekend nights more dangerous. More fatal crashes take place on weekend nights than at any other time in the week.
- Fortunately, you can take several effective measures to minimize these after-dark dangers by preparing your car and following special guidelines while you drive.



**The National Safety Council recommends these steps:**

- Prepare your car for night driving. Keep headlights, tail lights, signal lights and windows (inside and out) clean.
- Have your headlights properly aimed. Misaimed headlights blind other drivers and reduce your ability to see the road.
- Don't drink and drive. Not only does alcohol severely impair your driving ability, it also acts as a depressant. Just one drink can induce fatigue.
- Avoid smoking when you drive. Smoke's nicotine and carbon monoxide hamper night vision.
- If there is any doubt, turn your headlights on. Lights will not help you see better in early twilight, but they'll make it easier for other drivers to see you. Being seen is as important as seeing.
- Reduce your speed and increase your following distances. It is more difficult to judge other vehicle's speeds and distances at night.

- Don't overdrive your headlights. You should be able to stop inside the illuminated area. If you're not, you are creating a blind crash area in front of your vehicle.
- When following another vehicle, keep your headlights on low beams so you don't blind the driver ahead of you.
- If an oncoming vehicle doesn't lower beams from high to low, avoid glare by watching the right edge of the road and using it as a steering guide.
- Make frequent stops for light snacks and exercise. If you're too tired to drive, stop and get rest.
- If you have car trouble, pull off the road as far as possible. Warn approaching traffic at once by setting up reflecting triangles near your vehicle and 300 feet behind it. Turn on flashers and the dome light. Stay off the roadway and get passengers away from the area.

### Driving in Snow, Rain and Ice



### Driving in Snow and Ice

- The best advice for driving in bad winter weather is not to drive at all, if you can avoid it.
- Don't go out until the snow plows and sanding trucks have had a chance to do their work, and allow yourself extra time to reach your destination.
- If you must drive in snowy conditions, make sure your car is prepared, and that you know how to handle road conditions.
- It's helpful to practice winter driving techniques in a snowy, open parking lot, so you're familiar with how your car handles. Consult your owner's manual for tips specific to your vehicle.



## Driving safely on icy roads

- Decrease your speed and leave yourself plenty of room to stop. You should allow at least three times more space than usual between you and the car in front of you.
- Brake gently to avoid skidding. If your wheels start to lock up, ease off the brake.
- Turn on your lights to increase your visibility to other motorists.
- Keep your lights and windshield clean.
- Use low gears to keep traction, especially on hills.
- Don't use cruise control or overdrive on icy roads.
- Be especially careful on bridges, overpasses and infrequently traveled roads, which will freeze first. Even at temperatures above freezing, if the conditions are wet, you might encounter ice in shady areas or on exposed roadways like bridges.
- Don't pass snow plows and sanding/salting trucks. The drivers have limited visibility, and you're likely to find the road in front of them worse than the road behind.
- Don't assume your vehicle can handle all conditions. Even four-wheel and front-wheel drive vehicles can encounter trouble on winter roads.



### If your rear wheels skid:

- Take your foot off the accelerator.
- Steer in the direction you want the front wheels to go. If your rear wheels are sliding left, steer left. If they're sliding right, steer right.
- If your rear wheels start sliding the other way as you recover, ease the steering wheel toward that side. You might have to steer left and right a few times to get your vehicle completely under control.
- If you have standard brakes, pump them gently.
- If you have anti-lock brakes (ABS), do not pump the brakes. Apply steady pressure to the brakes. You will feel the brakes pulse — this is normal.

### If your front wheels skid:

- Take your foot off the gas and shift to neutral, but don't try to steer immediately.

- As the wheels skid sideways, they will slow the vehicle and traction will return. As it does, steer in the direction you want to go. Then put the transmission in "drive" or release the clutch, and accelerate gently.

**If you get stuck:**

- Do not spin your wheels. This will only dig you in deeper.
- Turn your wheels from side to side a few times to push snow out of the way.
- Use a light touch on the gas, to ease your car out.
- Use a shovel to clear snow away from the wheels and the underside of the car.
- Pour sand, kitty litter, gravel or salt in the path of the wheels, to help get traction.
- Try rocking the vehicle. (Check your owner's manual first — it can damage the transmission on some vehicles.) Shift from forward to reverse, and back again. Each time you're in gear, give a light touch on the gas until the vehicle gets going.

## **Being Prepared for the Unexpected**

**If your tire blows out:**

Hold onto the wheel with both hands, Steer straight ahead. Keep your foot off the gas and allow the vehicle to roll to a stop.

**If your vehicle is forced onto a soft shoulder:**

Steer ahead and let up on the gas. When you have reduced speed and have control of the vehicle, check the rear view mirror and steer back onto the highway. If at all possible, avoid coming to a complete stop since you may get the vehicle stuck.

**If another vehicle is in your lane and headed toward you:**

Apply your brakes, blink your headlights and sound your horn. Steer your vehicle to the right and look for an opening to avoid a collision.

**If your brakes fail:**

Pump the pedal, apply the parking brake and downshift to a lower gear. If necessary, angle your vehicle toward a curb or guard rail to help you slow down and stop the vehicle.

**If the accelerator sticks:**

Engage the clutch or shift into neutral. Turn off ignition. Apply the brakes and bring your vehicle to a stop.

**If a fire starts:**

Pull off the road, bring your vehicle to a stop and shut off the ignition. Use an extinguisher to put out the fire if you can do so without putting your life in danger. If in doubt, get out and proceed quickly to a safe distance from the vehicle.

## Winter, Weather Related, Evacuation - Survival Kit

Keep a bag stocked and always present in your trunk or in the cargo compartment just in case of emergency. Purchase a bag expressly for this purpose or simply use a cardboard box, an old travel bag, or a couple of canvas grocery bags. Kits should include, at minimum:

- Winter coat, hat, and gloves; ideally a blanket (or more than one) as well
- First-aid kit
- Some non-perishable food such as granola bars, or crackers; even just some hard candy can help
- Strike anywhere matches in a water-tight container
- Candles and an empty coffee can to melt snow; a cup is a good idea as well
- Flashlight with extra batteries
- Small tool kit or at least an all purpose tool
- Shovel
- Jumper cables
- Heavy Duty Ice Scrapper
- Tow Chain or Strap
- Emergency flares
- Rags Heavy Duty paper towels
- Kitty litter
- Extra windshield wiper fluid
- Cell phone – citizens band radio





## Skidding and Hydroplaning in Rainy Conditions

- Losing control of your car on wet pavement is a frightening experience.
- Skids are scary but hydroplaning is completely nerve-wracking.
- Hydroplaning happens when the water in front of your tires builds up faster than your car's weight can push it out of the way. The water pressure causes your car to rise up and slide on a thin layer of water between your tires.

### Taking these simple tips into account can save your life.

- You can prevent skids by driving slowly and carefully, especially on curves. Steer and brake with a light touch. When you need to stop or slow, do not brake hard or lock the wheels and risk a skid. Maintain mild pressure on the brake pedal.
- If you do find yourself in a skid, remain calm, ease your foot off the gas, and carefully steer in the direction you want the front of the car to go. For cars without anti-lock brakes, avoid using your brakes. This procedure, known as "steering into the skid," will bring the back end of your car in line with the front. If your car has ABS, brake firmly as you steer into the skid.
- Avoid hydroplaning by keeping your tires inflated correctly. Maintain good tire tread. Don't put off replacing worn tires. Slow down when roads are wet, and stay away from puddles. Try to drive in the tire tracks left by the cars in front of you.
- If you find yourself hydroplaning, do not brake or turn suddenly. This could throw your car into a skid. Ease your foot off the gas until the car slows and you can feel the road again. If you need to brake, do it gently with light pumping actions. If your car has anti-lock brakes, then brake normally. The car's computer will automatically pump the brakes much more effectively than a person can do.
- A defensive driver adjusts his or her speed to the wet road conditions in time to avoid having to use any of these measures.



### Driving left of Center – Head-On Collisions:

- 6% of head-on crashes were caused by drivers passing at inopportune times
- 20% occurred on curves where drivers were going too fast and veered into traffic
- 63% were caused by driving going straight being distracted in some way such as: cell phones, kids, the radio, CD or falling asleep
- More than ½ occurred in daylight
- 80% occurred in dry weather

- Avoid the scenic routes and drive on the highways
- Four actions can be taken to help reduce the occurrence of severity of a head-on collision
  1. Read the road ahead
  2. Drive right – Because oncoming cars may move back to their lane
  3. Reduce speed
  4. Ride off the road. If you drive too far right and off the road look for something soft to hit, such as a shrub or brush. If the choice is between hitting a fixed object or moving vehicle, hit the fixed object

### **Right –of-Way Violations**

- More than half of all urban collisions occur at intersections
- Know the procedures for each intersection

### **Traffic light, stop sign, yield sign, traffic circle:**

- When a light turns yellow, slow down and stop
- Don't run a red light

### **Passing improperly**

- Before passing always ask yourself if this pass is necessary – Remember always be a defensive driver

### **There are three steps for safe passing:**

1. Maintain proper following distance
2. Move left into the passing lane, always check your blind spots first, and use your turn signal
3. Complete the pass

## **Intersections Require Extra Caution**

- A high number of accidents happen at intersections. Causes can be attributed to:
  - Speeding
  - Drivers not paying attention
  - Obstructed view
  - Drivers unfamiliar with the area
- A defensive driver will slow down not knowing if an approaching driver will stop
- A defensive driver will proceed with caution and look for crossing traffic from both sides, vehicles that may be turning into your path or passing on your blind side
- Running through the “Yellow” light

### **Tips for intersections:**

- Keep a safe distance between you vehicle and others
- Always give pedestrians the right of way
- Make full stops at all stop signs and red lights
- Obey all traffic signals
- Never pass another vehicle at an intersection

## Turning

- Before turning or switching lanes, check your mirrors, reduce speed and use your turn signal in advance
- Be aware of blind corners (corn fields can block your view), (trees and bushes can block your view), Proceed with caution and at a reduced speed
- Always know where you are going
- Get into the appropriate turn lane
- Use your turn signal, (laws differ between states) usually 100 feet before turning
- Turn remembering that BEFORE you turn you must:
  - Yield to on coming traffic
  - Yield to pedestrians'
  - Turn into the appropriate lane

If you miss a turn, don't go to the next light a make a U-turn, and turn around in the opposite direction

## Left turns:



- Turn on directional signal
- Obey traffic signals
- Keep wheels and front end of car pointed straight
- Yield to oncoming traffic and pedestrians
- Make turn when safe and clear

## Right turns



- If changing lanes, make your lane switch 100 feet before intersection
- Check right blind spots for other traffic  
Yield to pedestrians
- Make turn when safe and clear

## Be Fit and Stay Fit to Drive



Driving requires the driver to be sharp, alert, attentive in order to be able to drive defensively at all times. Anything that affects your ability to react quickly and decisively could lead to a collision.

### Distracted and Drowsy Driving

#### Distracted Driving

Research indicates that driver distraction is a contributing factor in 25-50% of all crashes. An estimated 15 % of crashes are directly caused by driver preoccupation. With hectic schedules and roadway delays, many employees feel pressured to multi-task just to keep up with their personal and work-related responsibilities. More time on the road means less time at home or at work but “drive time” can never mean “down time.” Since drivers make more than 200 decisions during every mile traveled, it's critical to stress that when safe driving is the driver's primary responsibility.

#### Fatigued Driving

Fatigued or drowsy driving may be involved in more than 100,000 crashes each year, resulting in 40,000 injuries and 1,550 deaths. Sadly, these numbers represent only the tip

of the iceberg since these crashes are seriously under-reported. These days, it's more important than ever for drivers to be well rested, alert and sober on the road so that they are in a position to defend themselves from drivers who do not make the same choice.

**Falling asleep while driving is responsible for at least:**

- 100,000 automobile crashes
- 40,000 injuries
- 1550 fatalities

**Make sure you are well rested – don't rely on caffeine to keep you alert. The effect is short lived and after the affect wears off you will feel more fatigued.**

- Get enough rest before starting on a long drive
- Avoid medications that make you drowsy
- Make regular rest stops, even if you are not tired
- Avoid heavy meals but do eat regular balanced meals
- Allow time for preparation
- Allow extra time to get from point A to point B
- Stay relaxed
- You should always be prepared for driving both mentally and physically
- Get out of the vehicle and stretch every 100 miles or every two hours
- Any time you have a difficult time staying awake, pull over and get some rest

**Stay Focused on your Driving**

- Do not allow passengers to divert your attention or your concentration
- If you must take your eyes off the road momentarily, slow down, increase your space cushion, check mirrors and identify any hazards around you
- Do not let cell phones, pagers or other electronic devices distract you
- Practice short, quick glances and avoid prolonged staring
- Do not attempt to read anything while driving
- Avoid eating and drinking while driving

**Distracted Driving**

Longer commutes, an increase in heavy traffic, the availability of in-vehicle technology are all factors that result in driver distraction. More time in your vehicle results in less time at home or on the job, causing drivers to feel the pressure to multi-task to keep up with their responsibilities. Countless distractions tempt drivers to forget that their primary responsibility is to drive focused and stay safe.

**Safety Facts for the Road**

- Distracted driving is estimated to be a factor in between 25 to 30% of all traffic crashes—that's 4,000 or more crashes a day.
- Events inside and outside the vehicle can distract a driver. Adverse roadway and weather conditions require a driver's full attention.
- While taking one's eyes off the road presents obvious risks, activities that take a driver's mind away from driving are just as risky.
- A driver's ability to manage distractions varies widely and can change from day-to-day depending on their level of stress and fatigue.
- Distracted drivers fail to recognize potential hazards in the road and react more slowly to traffic conditions, decreasing their “margin of safety.”
- Research suggests that distracted driving increases the risk of rear-end and single-vehicle crashes.

**Do you know when you're driving distracted?**

- Has a passenger in your car screamed or gasped because of something you did or did not do?
- Did you run a stop sign unintentionally?
- Have you slammed on your brakes because you didn't see the car in front of you stop? You do not remember driving from one place to another?



<b>Did you know that even the most routine activities are potentially distracting while driving?</b>	
A national survey revealed the activities that distract today's drivers.	
<b><u><a href="#">NETS DISTRACTED DRIVING SURVEY</a></u></b>	
<b>Activities Drivers Engage in While Driving</b>	
96%	Talking to passengers
89%	Adjusting vehicle climate/radio controls
74%	Eating a meal/snack
51%	Using a cell phone
41%	Tending to children
34%	Reading a map/publication
19%	Grooming
11%	Preparing for work

<b>Participation in Distracting Activities While Driving for Work or for Personal Purposes</b>	
57%	Personal purposes
25%	Work purposes
14%	Both equally
2%	Don't drive for work
3%	Don't know
Network of Employers for Traffic Safety, 2001.	

### **Drowsy Driving**

As a driver, your number one responsibility is to get yourself and your passengers to your destination safely. When behind the wheel, you always need to be alert and focused. At 55 mph, a vehicle travels the length of a football field in 3.7 seconds. This is no time for a “mini” snooze. Being an attentive driver, and looking out for the driver who isn't, is increasingly important. Drive focused. Stay safe.

### **Do you know when you're driving drowsy?**

- Some warning signs of fatigue:
- You can't remember the last few miles driven.
- You hit a rumble strip or drift from your lane
- Your thoughts are wandering and disconnected.
- You yawn repeatedly.
- You have difficulty focusing or keeping your eyes open.
- You tailgate or miss traffic signs.
- You have trouble keeping your head up.
- You keep pulling your vehicle back into the lane.
- If you're tired and are in danger of falling asleep, then you cannot predict when a “mini” sleep may occur. A driver cannot react to road dangers when tired. Getting enough sleep will not only help you feel better, it can save your life.



## Safety Facts for the Road

- Drowsy driving causes more than 100,000 crashes each year, resulting in 40,000 injuries and 1,550 deaths.
- Crashes caused by drowsy driving are often serious crashes and occur most often on high-speed rural highways when the driver is alone.
- Drowsy driving can happen to anyone. A recent National Sleep Foundation study revealed that one half (51%) of adults have driven while drowsy and 17% report having fallen asleep while driving within the past year.

### **Drive Focused. Stay Safe. Avoid Distracted Driving.**

Safe driving practices require that you constantly search the roadway ahead for situations that could require you to take quick action.

### **Recognize that driving requires your full attention**

#### **Alcohol and Drug Impaired Driving**

Alcohol use is involved in 40 percent of all fatal motor vehicle crashes, representing an average of one alcohol-related fatality every 30 minutes. It is estimated that three in every 10 Americans will be involved in an impaired driving-related crash some time in their life. Alcohol, certain prescription drugs, over-the-counter medications, and illegal drugs can all affect a person's ability to drive safely due to decreased alertness, concentration, coordination and reaction time. Businesses pay a high price for alcohol and drug abuse; alcohol is a contributing factor in 39 percent of all work-related traffic crashes.

#### **Impaired Driving:**

On our congested roadways, it's more important than ever to drive with a clear head and a sharp focus. Make it a life-governing rule not to drive when you've had too much to drink. On average, a driver makes over 200 decisions per mile, so it's critical that a driver make the decision to drive alert before getting behind the wheel. Not only will you be a safer driver but you will be in a much better position to defend yourself from the driver who doesn't make that choice. Drive focused. Stay safe.



#### **Never mix Alcohol, Drugs and Driving:**

- At any time in the US, it is estimated that 1 of 50 drivers are illegally intoxicated



- It is estimated that two of every five drivers will be involved in an alcohol-related traffic accident at some time in their lives
- Two of five fatal accidents involve drugs and alcohol
- Six thousand are killed annually between the ages of 15 – 20
- A person every two minutes is injured in a traffic accident where alcohol is present
- If you drink alcohol – don't drive
- Use public transportation or a designated driver
- If you drive don't drink
- Never ride in a vehicle with a driver who has been drinking
- There is no way to sober up quickly, Coffee, fresh air, exercise and cold showers don't help. Only time will lessen the effects of alcohol

No one can drink and drive safely. Even a blood alcohol concentration (BAC) as low as .02 percent has been shown to affect a driver's ability and increases the likelihood of a crash

### **The Dangers of Drugs and Driving**



Nearly all drugs - - illegal, prescription and over-the-counter can affect your driving skill and judgment.

Ask your doctor if the medication you are on is safe to drive and operate machinery  
Most common OTC cold remedies can make you drowsy and can affect your ability to control your vehicle

Pep pills may make you more alert for a short time. However, they can also make you nervous, dizzy, and unable to concentrate

Don't use illegal drugs. They adversely affect reaction time, your ability to think clearly and they do impair your judgment

### **Can you spot an impaired driver on the road?**

Drivers under the influence of alcohol often display certain characteristic driving behaviors. Keep these in mind to avoid a dangerous situation.

- Weaving, swerving, drifting or straddling the center line.

- Driving on the wrong side of the road.
- Driving at a very slow speed.
- Stopping without cause or braking erratically.
- Turning abruptly or responding slowly to traffic signals.
- Driving with the window down in cold weather.
- Driving with headlights off at night.

If you spot an impaired driver, stay a safe distance from their vehicle. Alert the police that there is an unsafe driver on the road.

### **Facts you should know**

- Nine out of 10 insurance companies automatically cancel the policy of a driver convicted of a DWI/DUI violation. Consequently, the driver must find a high-risk insurance company and face substantial rate increases.
- Alcohol involvement is highest at night (9 p.m. to 6 a.m.), on weekends and on holidays.
- Driving skills, especially judgment, are impaired in most people long before they exhibit visible signs of drunkenness.
- Celebrations are a part of our lives and sometimes they include alcohol. They should not, however, involve impaired driving:
- Decide who the designated driver is before the party starts.
- Be the kind of co-worker who will take the keys if someone has had too much to drink.
- If you're impaired, make the safe choice – ride with a designated driver, call a taxi, stay where you are, or call a sober friend or family member. Making the safe choice could save your life.

### **Safety Facts for the Road**

- Alcohol impaired driving accounts for about 40% of fatal crashes. About three in every 10 Americans will be involved in an alcohol-related crash at some time in their lives.
- Research shows that alcohol is a contributing factor in 39% of all work-related traffic crashes.
- Nearly 1.5 million people are arrested each year for driving while intoxicated (DWI). Two-thirds of all drivers arrested for DWI are first time offenders.
- A DWI/DUI conviction on a person's driving record may prevent them from getting a job, receiving a promotion or even result in a job loss.

## **Aggressive Driving**

- Employees commuting to and from work and traveling for work purposes often find themselves caught up in bottlenecks and traffic delays, wasting their time and reducing their productivity. These situations create a high level of frustration that can spark aggressive driving behavior. The roadway is one place that being aggressive never pays.

- Aggressive driving acts include excessive speed, tailgating, failure to signal a lane change, running a red light and passing on the right. The best advice is to avoid engaging in conflict with other drivers and to allow others to merge.
- As traffic congestion continues to grow, motorists commuting to and from work and traveling for business purposes often find themselves caught up in bottlenecks and significant delays, wasting time and reducing their productivity. This situation creates a high level of frustration and can spark aggressive driving among these overwhelmed drivers. To protect against aggressive driving, remember that your primary responsibility is to drive focused and stay safe.



### **Avoid Aggressive Driving.**

- Correct your own unsafe driving habits that are likely to endanger, antagonize or provoke other drivers.
- Keep your cool in traffic; be patient and courteous to other drivers and don't take their actions personally.
- If you think you have a problem, seek help. Look for anger or stress management classes or self-help books.
- Reduce your stress on the road by allowing plenty of time to reach your destination, plan your route in advance and alter your schedule or route to avoid busy roads.
- If despite all your planning, you're going to arrive late, accept it and avoid aggressive driving.
- Make every attempt to safely move out of an aggressive driver's way. If a hostile motorist tries to pick a fight, do not make eye contact and do not respond. Ignore gestures and refuse to return them.
- Report aggressive driving to the police. Provide a vehicle description, license number, location and the direction of travel.

### **Drive Focused. Stay Safe. Avoid Aggressive Driving.**

- Be aware of your behavior and the behavior of others on the road during the late night, early morning and mid-afternoon hours when drowsy driving crashes are most likely to occur. Plan a rest stop during these hours.
- Get a full night of rest before driving. If you become tired while driving, stop. A short nap (15 to 45 minutes) and consuming caffeine can help temporarily.
- Stop at regular intervals when driving long distances. Get out of the car every 2 hours to stretch and walk briskly.
- Set a realistic goal for the number of miles you can safely drive each day.
- Avoid taking medications that cause drowsiness.

### **Safety Facts for the Road**

- A major reason for increased traffic congestion is that our highway system has not kept pace with the growing demands placed on it. Since 1970, the number of drivers increased by 64% while the roadway system increased by only 6%.
- Many Americans believe aggressive driving is on the rise and worry about the behavior of other drivers but admit to engaging in aggressive driving themselves.
- A substantial number of the 6.8 million crashes that occur each year are estimated to be caused by aggressive driving.

**OVERLY FRUSTRATED DRIVERS ARE TURNING THEIR CARS INTO EXTENSIONS OF THEIR HOMES AND OFFICES, CREATING A DANGEROUS DISTRACTION ON THE ROAD THAT FUELS AGGRESSIVE DRIVING AMONG OTHER DRIVERS.**

<b>Are you “just driving like everyone else” or are you driving aggressively?</b>	
<b><u><a href="#">The Nerves of Steel Survey is a national survey that reveals how Americans define aggressive driving.</a></u></b>	
<b>Is this act aggressive?</b>	
Tailgating	95%
Making rude gestures	91%
Passing on the shoulder	90%
Pulling into parking space someone else is waiting for	88%
Failing to yield to merging traffic	85%
Flashing high beams at the car in front of you	74%
Waiting until the last second to merge with traffic on the highway	66%
Changing lanes without signaling	66%
Driving through a yellow light that is turning red	62%

Honking the horn	53%
Double parking	53%
Driving 10 mph or more under the speed limit	27%
The Steel Alliance, 2002.	

## Reading Traffic Patterns and Spotting Potential Hazards

### Spotting potential hazards:

1. **Changing traffic signals**
2. **Parked cars**
  - Watch for car door opening
  - Wheels turned out
  - Back up lights on
  - Turn signal on
  - Driver behind wheel
3. **Pedestrians**
  - Jaywalkers
  - Children
  - elderly



### Recognizing the Hazards

- Scan the road ahead, behind and next to your vehicle for potential hazards and dangers
- In a congested city: 1-2 blocks of traffic or 12-15 seconds ahead
- Next hill or curve in rural traffic (12-15- minutes ahead)
- Check your rear view mirror every 3-5 seconds

### Acting Correctly in Time, You must be prepared by:

- Knowing hazards in front of you
- Knowing what to do to avoid hazards

- Acting quickly to avoid hazards

## Accident Cause Triangle

### Acts of God

- Accidents caused by natural disaster include but are not limited by the following, tree falls, lightning strikes, flood taking vehicles
- Avoid natural disasters by following weather reports obeying storm warnings and possible postponing trips

### Unsafe Conditions

- Brake failure, transmission failure, tire blow outs to name a few
- Avoid these by inspection your vehicle/s, completing pre-trip inspections, weekly inspections, completing regular maintenance and documenting your maintenance, odometer and dates

### Unsafe Acts

- Excessive speed, tailgating, driving under the influence, driving while reading, driving tired, not paying attention
- Avoid these by following safe driving guidelines, periodically review defensive driving or take a course

*At least 85% of traffic collisions are caused by unsafe acts. Experts predict the estimate is probably higher because most unsafe acts being caused by unsafe acts of people are not usually reported*

## Collision Prevention Formula

### R U A Formula

R = Recognize the hazard

U = Understand the defense

A = Act correctly in time

**R + U + A = Collision Prevention Formula**



## From Road Trip America

### ALL THE RULES



1. Pay Attention. "I never saw him!" is the most common excuse heard after a collision.



2. Don't Trust Nobody! You can never rely on what the other driver will do.



3. Yield Anyway! "Nobody ever yielded their way into a collision."



4. Don't Speed. Driving at a higher than reasonable speed increases your risk



5. Don't Drive Impaired. Impairment means "making something worse, less, weaker, or damaged." Applied to driving, impairment means there is a factor present that decreases your ability to operate your vehicle safely.



6. Wear Your Seat Belt. Without a doubt, seat belts are the most significant safety device ever invented



**7. Buy and Use Other Safety Devices.** In addition to seat belts, we also recommend size-appropriate child safety restraints, ABS brakes, and air bags.



**8. Motorcyclist—Protect Thyself!** Talk about helmets, wear protective gear.



**9. Don't Run Red!** Too many drivers run Yellow/Red lights. Don't be one of them.



**10. Drive Precisely!** Sloppy driving breeds mishaps!



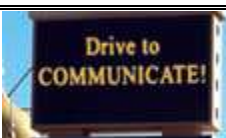
**11. Chill Out!** Driving safely is all about attitude.



**12. Look Down the Road!** This means keep your eyes UP and looking down the road.



**13. Create Space & Use the Three-Seconds-Plus Rule.** Guard your safety by actively creating space around your vehicle.



**14. Drive to Communicate,** You want to know the other driver sees you, and this rule will provide you with some ways to make sure they do.





**15. Drive Predictably.** One of the best ways to create a safe environment for yourself and others while driving is to be predictable. Plainly stated, you don't want to surprise anyone.



**16. Always Signal Your Intentions,** "pet peeves" about other drivers; a common reply is that other drivers don't signal turns and lane changes.



**17. Know Your Blind Spots,** It should make you uncomfortable if you are driving in other drivers' blind spots! Virtually all vehicles have blind areas—even motorcycles



**18. Avoid Distractions!** When we assume our driving "duties," one of the most important is that we be responsible for our actions and the results of those actions.



**19. Avoid Backing Up!** Many fender-benders occur when drivers back up.



**20. Beware of Intersections!** Intersections are one of the most dangerous areas for any driver. One oft-quoted statistic is that over 80% of all city collisions involving injury or death occur within signal-light



**21. Be a Freeway Pro!** The high speeds of controlled-access highways and the density of traffic on them require a special set of operating rules. Depending on your location, they may be called freeways



**22. Know How to Stop!** Red light and stop sign "runners" account for a good portion of the traffic collision fatalities every year. It's important to know how to stop. Driving is such a habit for us, and we are distracted by so many things, that it's easy to just "go through the motions," without really thinking about what we're doing



**23. Know When to Use Your Headlights!** Headlights are for seeing and BEING seen! Be sure to recognize the circumstances where lights are necessary for safety. The sobering statistic is that while only 25% of the miles we drive are at night, about 50% of the fatalities occur in the darkness—25,000 people each year.



**24. Slow Down in Rain or Snow!** Wherever visibility is bad and the road surface is slippery, there's always someone flying through without slowing even one mile-per-hour, don't be that person.



**25. Maintain Your Vehicle's Tires,** One element of driving defensively is driving to save money. Taking good care of your vehicle can pay cash dividends, and you'll be much less likely to get stranded out on the road where you'd be vulnerable to a variety of calamities.



**26. Take Care of Your Vehicle.** If you are not mechanically inclined, there may not be much you can do to check the brakes. You can check your fluid reservoir (if you don't know where it is, have someone who does show you). Brake fluid levels don't usually change much so a sudden change in fluid level is a red flag. You should have your brakes checked regularly.



**27. Get Rid of Tailgaters** - Most driving instructors will tell you not to tailgate other vehicles for several reasons. Following too closely is a factor in about 40% of collisions and they are not always minor in terms of injuries and fatalities. Following too closely often restricts your vision.



**28. Maintain an Even, Measured Pace.** One of the most frequent factors behind collisions is the "jackrabbit" driver. He's the guy who's constantly changing speeds, changing lanes, tailgating, and otherwise not fitting into traffic.



**29. Check for Hydroplaning.** Hydroplaning is what happens when the tread on your tires cannot channel all the rain-water out from under your tires.



**30. Know How To Recover from a Skid.** What's the best way not to get into a skid? Avoid it in the first place! One of the best ways to avoid trouble on the road (not just skids) is to drive smoothly.



**31. Avoid Head-On Collisions.** A head-on collision is the worst crash most of us can think of. Thankfully, they are relatively rare. Still, you should be prepared for one.



**32. Be a Safe Passer.** Look for double lanes on two-lane highways, which indicate No Passing.



**33. Avoid the Single-Vehicle Collision.** When many people think about what the most "dangerous" collision is, they don't always come up with the correct answer. The statistics show that the collision that kills more of us than any other is the single vehicle, off the road collision.



**34. Deal with Light Glare,** by averting your eyes slightly down and to the right. The right-side white stripe outlining the right edge of the usable roadway is called the "fog-line." One of its purposes is to provide drivers with a reference line to keep their vehicle aligned with the roadway in poor visibility situations -- and this is one such situation.



**35. Never Play Chicken with a Train!** I am amazed at how often cars race trains to a crossing, in order to just barely cross in front of it. As a train approaches you, an optical illusion is created that masks the speed of the train -- making it appear to be traveling slower than it really is.



**36. Beware of Stopped or Slow-Moving Vehicles.** Be cautious when passing stopped or slow-moving vehicles. They often hide dangers that are not immediately apparent. The first thing to ask yourself is why? Why is the vehicle moving slowly, or why is it stopped?



**37. Practice Animal Avoidance!** Car/animal collisions are a problem across the United States.



**38. Don't Prevent Others from Passing.** Defensive driving encompasses many different ideas and practices, one of which is understanding the effects your driving may have on others, and the results this can have on your safety and theirs.



**39. Drive Your Van Safely.** Vans are involved in collisions at a higher rate than passenger sedans. You should think about the reasons why, especially if you drive a van infrequently and are less experienced in their characteristics. The most common van mishaps stem from backing up.



**40. Practice Smart Bicycling .** Protect your number one asset! I'd wear a helmet if I rode a bike. Even minor bumps can cause spills resulting in head impacts and other injuries.



**41. Share the road with Bicyclists.** One of the problems bicyclists face is motorists who think they don't belong on the road. As drivers, we must share roadways safely with all users, and bicyclists have every right to be out there.



**42. Exercise Prudent Courtesy.** Most drivers agree that courtesy is lacking on our roadways -- whether between operators of cars, cars and pedestrians or bicycles, between motorcycles and cars, or trucks and cars.



**43. Recognize the Futility of Rushing.** It's not a good idea to try to make up time on the road when you are late. We once called this behavior "pressure driving." Pressure driving is characterized by speeding, sudden and multiple lane changes, cutting other drivers off, tailgating, or going on private property or off the road to get around obstacles or slower drivers.



**44. Make Allowances for Your Physical Limitations.** What does the term "impaired driving" mean to you? If you're like many, drinking and driving comes to mind quickest. But impairment is a term that characterizes any similar any similar insufficiency.



**45. Start Rested -- Keep Fresh!** Collision statistics show fatigue is a major collision factor.



**46.** Share the Road With Trucks. Drivers must deal safely with all obstacles and situations we encounter. We take responsibility for a safe outcome -- because that's sometimes the only way we can avoid a collision.



**47.** Make Space for Parked Vehicles on a Roadway. Imagine yourself happily motoring down an Interstate highway when you have a sudden blow-out or other emergency situation. You roll (or coast) to the side, but you have limited ability to get too far off the roadway (because of obstacles or a curb), and you have to stop fairly close to the road.



**48.** Give Way on Mountain Roads. Most of us know the rules about driving to the right on multilane highways under normal conditions, and moving left only to pass. This isn't just courtesy, or standard operating procedure, but it's often a legal requirement as well.



**49.** Make Safe and Sane Left Turns. Left turns at controlled intersections are one of the most dangerous driving maneuvers. They don't have to be, the dangers can be controlled. The most important thing is to be knowledgeable -- and then MINDFUL -- of what they are.

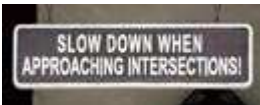


**50. Connect Your Mind To Your Eyes!** What color is a "yield" sign?

Think about that for a few moments and we'll come back to it. Human beings are prone to operating on "autopilot." Especially on familiar roads our minds wander away from our immediate task to other things. It is virtually impossible to keep this from occurring, but it is important to recognize it and bring our attention back to what we're doing as often as possible



**51. Make Defensive Stops!** You can minimize the danger of collision at intersections by learning to stop defensively. First, make sure your deceleration to the stop doesn't surprise the guy behind you.



**52. Slow Down Approaching Intersections!** Did you know that the AVERAGE speed of a vehicle passing through a controlled intersection is about 52 mph? How many times have you approached and entered an intersection without having any idea if someone is about to run the red light?



**53. Beware of Traffic Holes!** Some of my defensive driving rules focus on preventing trouble in specific danger spots. Especially when they're in tight, congested areas where it is difficult to maneuver, drivers sometimes get impatient. In situations like trying to get into traffic from a parking lot or making a left turn across heavy traffic, drivers often take advantage of any opening to "get moving."





**54. Turn Right, LOOK Right!** In the United States, a driver's natural tendency when making a right turn is to look left, since left is the direction the traffic is coming from (we hope). For this reason, right-turning motorists are one of the biggest dangers to bicyclists! Many bicyclists ride on the wrong side of the street -- if you are riding a bike, you are supposed to ride WITH the flow of traffic.



**55. Avoid Changing Lanes in Intersections** - One of the misconceptions that many folks have about traffic law is that it is illegal to change lanes in an intersection. This is not true in all states.



**56. Don't Abuse the Two-Way Left Turn Lane.** Some folks call the center two-way turn lane the "suicide" lane! That's a little extreme -- traffic engineers will tell you these lanes are actually pretty safe. But every day, you see people using them in ways that were never intended.



**57. Avoid "Reverse Traffic" Lanes.** Some cities designate the center lane of some major streets as "Reverse Traffic Lanes." These are used during rush hours to help move traffic that is predominantly headed in one direction.



**58. Move Right When Approaching Intersections.** This rule is about visibility in heavier traffic situations, and collision prevention. You cannot assume the other guy is paying attention -- sometimes he's not -- and you cannot assume you will be readily visible.



**59. Beware of Stopped Vehicles at Crosswalks,** This is a simple rule, but it is one that many drivers don't think about. When you are driving down a city street, and you see a pedestrian crossing the roadway ahead of you, you know you must yield to them; but what about the pedestrians that you cannot see?



**60. Use the Center Lane for Safety.** If you have a choice whether to use a controlled access roadway (or freeway, expressway, etc), or a city boulevard, you should choose the controlled access road, because your potential for a collision is less. A freeway has no intersections, and, with few exceptions, traffic is typically moving at similar speeds.



**61. Never Stop on a Freeway!** This one seems like such a no-brainer, but you see vehicles stopped on controlled access highways all the time. You may have no other choice if you have an emergency, but otherwise, take an off-ramp and find a parking lot to get out of traffic and off the road.



**62. Don't Cross a Freeway Median!** The "technical" term for an Interstate, a freeway, or an expressway is "controlled-access highway." The elements behind the safety and speed of travel on these highways are common direction, common speed, and no intersections to choke traffic or create conflicts. Simply stated, everyone should be headed in the same direction at close to the same speeds.



**63. Seat Belts and Air Bags Go Together!** The term auto manufacturers use for air bags is "Supplemental Restraint Systems -- or "SRS." Seat belts and air bags are designed to work together to prevent serious injuries.



**64. Avoid Head Injuries!** What's the one part of the human body that doesn't heal quickly (or at all) if injured? Forty to fifty percent of brain injuries occur in vehicular mishaps and even in cases of minor injuries, the long term effects can be permanent and life-altering.



**65. Don't Ride in Pick-Up Truck Beds!** The bed of a pick-up truck is for CARGO, not people. If you care about your passengers (or your pets), do not allow them to ride in the back of your truck.



**66. Secure Loose Objects!** Many injuries are caused by loose objects that "fly" in a collision. When your vehicle suffers a sudden deceleration (as in a collision), the only things that stop with it, at least immediately, are the ones that are secured somehow.



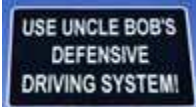
**67. Keep Children Safe in the Center!** This may come as a surprise if you're not a parent, but kids aren't born with perfectly formed and completed bodies! Their skeletal structure, for one thing, isn't fully grown and "put together" at birth. Their bones aren't as supportive and rigid as yours.



**68.** Don't "Pump" ABS Brakes! ABS brakes have been around awhile, but there are still drivers who have not learned what they are and how they work.



**69:** Choose Your Route for Safety! Life is fragile, and although we humans are tough creatures, it doesn't take much for us to exceed the limits of what our bodies can take. As you plan your trips, especially over routes you use repeatedly, think about where the dangers are. Can you take a different route to avoid a particularly dangerous intersection?



**70:** Using "All the Rules" "Uncle Bob's" Defensive Driving System with 70 rules of defensive driving and abiding by them could save your life.