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**UNIT EIGHT: MALFUNCTIONS,
WEATHER, CRASHES, TRAFFIC STOPS
&
HOW TO AVOID THEM**



Objectives For Unit Eight

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How should I drive in rain, snow or even ice?

I just got into a crash. What do I do now?

What happens if I get stopped by law enforcement ?

What happens if my vehicle breaks down?

What about night driving?

Objectives For Unit Eight

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- Student will be able to identify the various adverse conditions he/she will be likely to encounter and define the appropriate measures to take to drive safely in those conditions.
- Student will evaluate the risks in various adverse weather conditions.
- Student will examine the role speed plays in collisions.
- Student will be able to list his/her responsibilities in a collision and what the consequences are for failing to complete those responsibilities.

What Are Adverse Conditions?

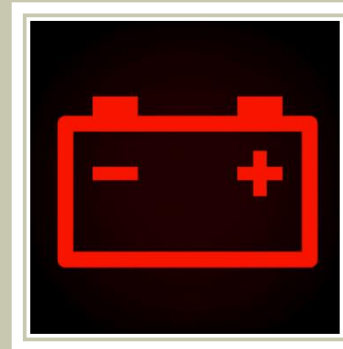
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- **Mechanical Malfunctions**
 - **Environmental Issues**
 - **Legal Issues**
- **All the things that can go wrong with your vehicle and what to do.**
 - **Weather and what to do in snow, rain, ice, and wind.**
 - **Night Driving.**
 - **Crashes and law enforcement.**

Mechanical Failures

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- **Tire Failure**
- **Accelerator Failure**
- **Brake Failure**
- **Engine Failure**
- **Steering Failure**
- **Car fires**



Vehicle problems are frequently preceded by a warning light or indicator.

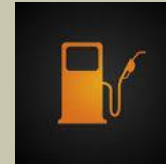
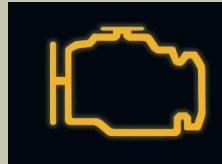
Dashboard Warning Symbols

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- **Green dashboard indicators: a system is working.**



- **Yellow dashboard indicators: some system has a problem and it needs to be fixed.**



- **Red dashboard indicators: a system that is about to fail, and your vehicle may no longer be roadworthy.**



Tire Failures

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How will you know?

- Loud noise and your car may pull in the direction of the tire that is blown out.

What should you do?

- Remain calm.
- Search for a safe place to leave road.
- Grip the wheel firmly.
- Take your foot off accelerator.
- Do not brake - allow vehicle to slow.
- Turn on flashers.
- Steer to a safe area if possible.



Tires: Flat & Bald Does Not Work

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**VIDEO TO BE DISPLAYED
DURING CLASSROOM
INSTRUCTION.**

Tires: Flat & Bald Does Not Work

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**VIDEO TO BE DISPLAYED
DURING CLASSROOM
INSTRUCTION.**

Accelerator Failure

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How will you know?

- The gas pedal will not move up or down. The “RPM’s” may increase. Vehicle may start to pick up speed.

What should you do?

- Stay calm and shift to neutral.
- May want to try pumping gas pedal to see if it will respond.
- Search for a safe place to get off the road.
- Steer smoothly/brake as gently as possible.
- Pull off roadway.
- Turn off vehicle.



Engine Failure: Why?

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- **When was the last time you checked or changed the oil in your car?**
- **Are you pulling away every morning and there is a puddle of oil?**
- **Do you know what the symbol at the right means for your engine?**
- **When was the last time you checked your coolant?**
- **Did you drive through standing water?**



Engine Failure: What Happens?

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How will you know?

- You may hear a loud bang, and the noise may continue.
- You may lose power to the engine although you may still be able to drive.

What should you do?

- Shift to NEUTRAL.
- Search for a safe place off the road.
- Put on your flashers to indicate that you are in trouble.
- DO NOT BRAKE.
- Carefully work your way over to closest side of the road way and pull off.



Engine Overheat

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How will you know?

- Temperature gauge will go into “red zone.”
- May start to see steam coming from under the hood.

What to do?

- Turn off AC system.
- Turn on your heater.
- Pull off the road if the temperature does not go down.
- **DO NOT OPEN RADIATOR.**



Brake Failure: Chronic Problems

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How will you know?

- “Chronic Failure” or Why is my car making this grinding, squealing noise when I apply the brake?
- You may also feel the car “pulling” when you try to stop.

What does this mean?

- This means your brakes are worn and in danger of failing.
- The best way to fix this problem is to have your brakes serviced before the whole neighborhood hears you trying to stop.

You will usually have plenty of warning to address this problem. If you can hear your brakes, GET THEM FIXED!

Brake Failure: Catastrophic Problem

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How will you know?

- You will push your brake pedal, and there will be no resistance.
- You have no brake fluid.
- Brake light indicator may come on.



What should you do?

- Stay calm.
- Turn on your hazard lights to signal that something is wrong.
- Shift your car into a lower gear to help it slow down.
- Carefully work your way over to a safe place to stop.
- Pump your brakes to try and get some pressure back into the system.

Car Fire: Rare But Dangerous

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How will you know?

- You will either see or smell smoke.

What should you do?

- Immediately move to the closest safe place to stop.
- Stop the car and turn off the ignition.
- Get every person out of the car
- Don't allow anyone to go back to retrieve personal items.
- ***DO NOT OPEN THE HOOD OR TRY TO PUT OUT THE FIRE.***
- Move far from the burning vehicle to avoid the flames and toxic fumes—at least 100 feet—and also keep bystanders back.
- Call 911.



Night Driving: Why Is It Dangerous?

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Fatigue

- Over 60% of drivers admit to driving drowsy.
- More than 40% admit to having fallen asleep when driving.

Limited Visibility

- A driver can only see 160-250 feet ahead with low beams and 350-500 feet ahead with high beams.
- Your depth perception, ability to distinguish color, and peripheral vision are reduced in low-light conditions.

Impaired Drivers

- Impaired drivers are more likely to be out after dark.

Traffic

- Drivers may be rushing home during rush hour in the dark.

Night Driving: How To Stay Safe

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Night Driving: How To Stay Safe

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- Adjust and clean your headlights. Consult your owners manual if necessary.
- Make sure your windows and mirrors are clean.
- Dim your instrumental panel and dashboard lights.
- Look for animals' eyes on the side of the road.
- Don't stare into the lights of oncoming vehicles.

Night Driving: How To Stay Safe

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Slow Down

- Your lights only give you 180-500 feet of visibility. At 60 mph, you will need at least 300 feet to stop.

Be Alert

- Watch out for drowsy or impaired drivers who may be changing lanes frequently, speeding, or not maintaining lane position.
- Watch for animals on the side of the road.
- Put away any distractions.

Wear your seat belt.

Keep your eyes moving, and take frequent breaks.

Weather

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Driving in Fog

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- **Why is fog dangerous?**
 - Limited visibility.
 - White, blue, silver, and black vehicles become hard to see.
- **What should a driver do?**
 - Reduce speed and allow greater following distance .
 - Make sure headlights are on low beam to reduce glare.
 - Turn on windshield wipers & defroster or air conditioner.

Driving In The Rain

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Why is rain dangerous?

- **According to NHTSA researchers,**
 - ✦ More than 40% percent of weather-related crashes happen during rainfall.
 - ✦ More than 70% of weather related crashes occur on wet pavement.
 - ✦ Water on the road makes it harder to stop and limits visibility.

What should a driver do?

- Make sure your tires have enough tread.
- Slow down and maintain **MORE THAN** 3- 4 seconds following distance.
- Try to drive in the center of the road.
- Turn on low beams or running lights & windshield wipers.

Driving In Rain: Hydroplaning

What is hydroplaning?

- Occurs when water gets between the surface of the road and your tires.
- Your vehicle is “surfing” on top of the water.
- You may only have limited steering or braking ability.

What should you do?

- Slow down, especially in the first few minutes of a rain.
- Stay calm, and do not panic.
- Do not slam on the brakes.
- Steer in the direction of the skid.
- Ease your foot off the accelerator.



Driving In Rain: Flooded Roads

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Never drive through standing water if you can avoid it.

- **You don't know how deep it is.**
- **12 inches of water can sweep your car away**
- **Standing water can also flood and destroy your engine**
- **Standing water can also hide potholes.**

If you must drive through standing water,

- **Drive slowly and steadily.**
- **Do not drive in water with downed power lines**
- **If your vehicle stalls, you may need to restart the engine to make it to safety but restarting may cause irreparable damage to the engine.**

Driving In Snow

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Why is it dangerous?

- **Loss of traction.**
- **Difficult to steer, brake, or stop.**
- **Limited visibility.**



What should a driver do?

- **Stay home.**
- **If you must travel, GO SLOW.**
- **Turn your headlights (your flashers on).**
- **Allow greatly increased following distance (much more than 3 -4 seconds).**
- **Make sure your vehicle is clear of snow and ice.**

Why?

Because you will have no traction.

If you must drive:

Go as slowly as possible.

Brake as slowly as possible.

Do not stop going up or down a hill.

Tap your brakes lightly to test them.



Driving in Ice: Just Stay Home

**DRIVING ON ICE
IS
EXTREMELY DANGEROUS!**

Winter Driving

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VIDEO TO BE DISPLAYED
DURING CLASSROOM
INSTRUCTION.

Legal Issues

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- **Getting stopped by the police.**
- **Receiving a citation.**
- **Getting into a crash and what to do.**



Getting Stopped By The Police

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VIDEO TO BE DISPLAYED
DURING CLASSROOM
INSTRUCTION.

What If You Get ONE Citation?

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If you get a citation with a learner's permit:

- **You will have to take the Driver Improvement Program.**
- **Your nine month waiting period to get a provisional license will start again.**
- **Repeated citations can lead to suspension and revocation of your privilege.**

If you get a citation with a provisional license:

- **Your eighteen month waiting period will begin again.**
- **You will have to take Driver Improvement.**
- **Repeated citations will lead to suspension and revocation of your driving privilege.**

Suspensions & Revocations

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If a provisional driver is under 18:

- **the FIRST offense requires the driver to complete a driver improvement program.**
- **a SECOND offense will result in a 30-day suspension of the driver's license/privilege followed by an employment and education only restriction for a period of 90 days.**
- **a THIRD offense will result in a 180-day suspension of the driver's license/privilege, require attendance at a driver improvement program designed for young drivers, and imposition of an employment and education only restriction for a period of 180 days.**

A FOURTH or SUBSEQUENT offense will result in the revocation of the driver's license/ privilege and will require a driver to pass all licensing tests successfully before being reinstated.

Crashes: How To Avoid Them

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- **Obey the speed limit.**
- **Stay focused on the driving tasks.**
- **S.E.E. all the time.**
- **Keep your vehicle maintained.**



If A Collision Is Coming...

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If a collision appears unavoidable:

- **Choose an off-road path.**
 - ✦ A head-on collision is the worst type of collision.
 - ✦ If possible, swerve to the right side of the road when you take evasive action.
 - ✦ Swerving to the left side of the road to avoid a collision is more apt to bring you into the path of oncoming traffic.
- **If you can, choose something that will give way.**
- **Hit an object with a glancing blow (at an angle) rather than head-on.**
- **Adjust your speed and steer so you can hit, or be hit, at or behind the rear wheels.**
- **DO NOT PANIC and maintain control of your vehicle.**

Off-Road Recovery

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If you go off the road accidentally or to avoid a crash,

- Do not panic and jerk the steering wheel.
- Ease off accelerator.
- Stay off brake.
- Align vehicle with edge of road.
- Check oncoming and following traffic.
- Return to road with proper steering technique.



Crashes: Legal Responsibilities

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According to the Maryland Driver Manual:

If you are involved in a crash where someone has been injured, including a pedestrian or bicyclist, you MUST remain at the scene and

- ✓ call 911 immediately to get help.**
- ✓ identify the number of people involved, the type of injury and the location of the crash.**
- ✓ Do not move the vehicles.**

Crashes: Legal Responsibilities

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If there are no injuries, but your vehicle cannot move:

- ✓ **call 911 immediately,**
- ✓ **give the location of the crash,**
- ✓ **advise there are no injuries but you need police assistance,**
- ✓ **use your emergency flashers or flares to warn oncoming traffic, and**
- ✓ **be patient and do not attempt to cross the roadway or stop traffic.**
- ✓ **Make sure you stay away from traffic.**

Crashes: Legal Responsibilities

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If there are no injuries and your vehicle can move:

- **Stop the vehicle as close as possible to the scene of the crash, without obstructing traffic more than necessary.**
- **If possible, move it off the roadway to ensure your safety and that of other motorists, and to prevent traffic backups.**
- **Exchange important information.**
- **Ask witnesses to leave their important information.**
- **Note collision location, date and time, number of vehicles involved, weather and road conditions.**
- **Note any damages and the facts of how the crash happened.**

Crashes: Legal Responsibilities

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If you strike an unattended vehicle or other unattended property, you are required to:

- stop the vehicle as close as possible to the scene of the crash, without obstructing traffic more than necessary.
- attempt to find the driver or owner of the property to notify and provide your information.
- if the driver or owner of the property cannot be found, leave notice and your information in a conspicuous, secure place.

Crashes: Legal Responsibilities

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When **MUST** you notify law enforcement?

- ✓ **Someone has been injured.**
- ✓ **A vehicle cannot be moved.**
- ✓ **A driver appears to be under the influence.**
- ✓ **A driver does not have a license.**
- ✓ **A driver tries to leave the scene without providing the proper information.**
- ✓ **Public property has been damaged.**
- ✓ **A driver strikes and injures a domestic animal.**

Hit And Run?

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You back into a mail box and don't tell the home owner.

You scrape another car while you're parallel parking, then quickly drive off.

You are backing out of your best friend's driveway and you run over the family's cat, and you say nothing.

You knock down a senior citizen crossing the street, and you don't stop.

What Is A Hit And Run Crash?

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- Any time a driver hits anything, person, property, or even a pet, and fails to stop.
- Can be a crash that causes property damage:
 - **Damage to property such as destroying mailbox or hitting a fence.**
 - **Damage to another vehicle such scraping a door or denting a bumper.**
- In these situations, a driver is required to leave notification and insurance information with the property owner if they can be found or on the vehicle/property if they cannot.

Hit And Run Crashes

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The most serious types of hit and run crashes involve vehicles and personal injury.

- **If you are involved in a crash that causes serious bodily injury or one that you should have known would cause serious injury and you fail to remain at or return to the crash,**
 - ✦ **YOU WILL BE COMMITTING A MISDEMEANOR AND MAY BE SUBJECT TO 5 YEARS OF IMPRISONMENT AND/OR A \$5000.00 FINE.**
- **If you are involved in a crash and you knew or should have known that the crash might result in death and you fail to remain at or return to the crash,**
 - ✦ **YOU WILL BE COMMITTING A FELONY AND CAN FACE UP TO 10 YEARS IMPRISONMENT AND/OR \$10,000 FINE.**

What Are A Driver's Responsibilities?

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A driver is required to

- ✓ **Return to or remain at the scene of a crash when he/she knew or should have known that serious bodily injury could result.**
- ✓ **Call for emergency assistance, and remain at the scene of the crash until that assistance remains.**
- ✓ **Assist the victim if possible.**
- ✓ **Provide law enforcement with all pertinent information.**

Why Leave The Scene Of A Crash ?

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- **Panic**
- **Shock**
- **May have been drinking or using illegal drugs**
- **No insurance**
- **Driving on a suspended or revoked license**

A hit and run conviction is worse than any of these. Remember, if you seriously injure someone, it is a crime that carries a maximum 5 year jail sentence.

How Serious A Problem Are Hit And Run Crashes?

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- In 2011, there was a 13.7% increase in fatal hit and run crashes while overall traffic fatalities have declined.
- Between 2010 – 2012, there were over 3,000 hit and run injuries in Anne Arundel, Baltimore City, Baltimore, Harford, and Howard counties specifically .



Review Of Unit 8

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- 1) What are some examples of mechanical failures? What is the best way to avoid mechanical issues with your vehicle?**
- 2) In any kind of bad weather, what is the first thing a driver should do?**
- 3) What should a driver do if he/she is stopped by law enforcement?**
- 4) What happens when a driver with a learner's permit or a provisional license is given a citation? Or receives multiple citations?**
- 5) If you cannot avoid a crash, what should you do?**
- 6) What information must a driver leave if he/she hits an unattended vehicle?**
- 7) When must a driver notify law enforcement of a crash?**
- 8) What is a hit and run crash and what are the penalties?**

END OF UNIT EIGHT