In-Vehicle Technology

There are many new technologies available that can help increase your safety and comfort behind the wheel. As with any safe driving skill, you must take charge of learning about these features and how they work in order for them to help you:

- Continue to drive safer, longer
- Reduce your crash risk
- Improve the ease and comfort of driving

New in-vehicle safety technology is designed to make driving safer, but it does not replace the important role each of us plays as drivers. None of the features included on this page should be relied on as replacements for safe driving behaviors.

Be the Expert on Your Own Vehicle

If you find yourself in a newer vehicle, you may be surprised to learn what safety features it has to offer. Here are a few tips and resources to help you learn about your current vehicle's technologies and what is in store for the future:

- Before driving off the lot, check to see if the dealership offers driver training on how to properly use the technologies in your vehicle. You can also ask a friend or family to help you.
- Keep in mind, the names, functions, and locations of these safety features may vary by manufacturer. Consult your owner's manual or visit MyCarDoesWhat.org to learn about the technologies in your vehicle's make and model.
- Stay up to date on the latest advancements in vehicle technology and how they can keep you safer on the road by taking AARP's Smart DriverTEK Workshop (learn.aarp.org/smart-drivertek-virtual-workshop) or AAA's Roadwise Driver Course (exchange.aaa.com/safety/senior-driver-safety-mobility/aaa-roadwise-driver). They can be taken online or in a vehicle.
- Use this quick reference as a guide.

The following technologies may help increase your safety and the safety of others on the road:

Back-Up Cameras

A back-up camera allows you to see what is behind the vehicle on a dashboard screen visible from the driver's seat. This feature can be helpful if you have a limited range of motion and flexibility in your upper body, making it difficult to perform a full over-the-shoulder check before backing up.

Back-Up Warning

When in Reverse, this feature uses rear-facing sensors to scan for objects behind the vehicle and will alert you with visual, sound and/or vibration warnings if anything is detected. Some systems will assist with braking to avoid a crash. It can be helpful when judging the distances needed to safely back out of parking spaces and driveways.

It is important to keep in mind that Back-Up Warning systems will not always detect objects that are moving. You should always check over your shoulder and look at the side and rearview mirrors, staying alert for people biking or walking, and oncoming traffic before backing up.

Forward Collision Warning

Forward Collision Warning systems use visual, sound, and/or vibration alerts to warn you of a potential crash with another vehicle or object in front of you. These systems can be helpful in preventing crashes as we age and our reaction times become slower.

Forward Collision Warning is only intended to warn you that braking is needed to avoid a crash. This system on its own cannot apply the brakes automatically in the case of an emergency.

FACT

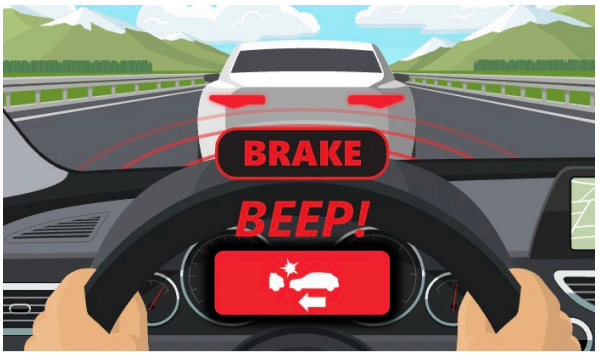
When properly utilized, Advanced Driver Assistance System (ADAS) technologies have the potential to prevent 40 percent of all vehicle crashes and nearly 30 percent of traffic deaths. However, driver understanding, and proper use is crucial in reaping the full safety benefits of these systems."

- Dr. David Yang, executive director of the AAA Foundation for Traffic Safety.

https://www.safemobilityfl.com/InVehicleTechnology.htm

Automatic Emergency Braking

If your vehicle has Automatic Emergency Braking and you do not brake or steer in response to a Back-up or Forward Collision Warning, your vehicle will apply the brakes on its own to avoid a crash or reduce the collision speed.



Do not solely rely on this feature to prevent a crash. Always be aware of your surroundings and keep a safe following distance from the traffic ahead.

Blind Spot Warning

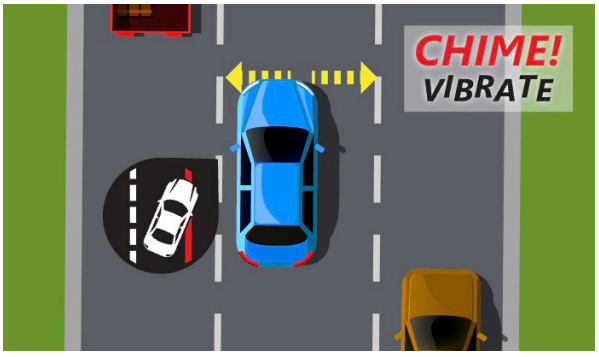
Blind Spot Warning systems use a variety of cameras and sensors to detect vehicles or objects that are in your "blind spots". If a vehicle is there, you will receive a visual alert, usually a flashing light or icon on the sideview mirror or windshield frame.

You may also get another warning via sound and/or vibration if you use your turn signal and try to merge into a lane where a vehicle has been detected.

These systems can help to prevent crashes that result from changing lanes or merging.
Blind Spot Warning systems are intended for highway driving and might not work when traveling at slower speeds. **This feature should not be relied on 100% of the time.** It is still important to look over your shoulder and check your blind spot before changing lanes.

Lane Departure Warning & Lane Keeping Assist

Lane Departure Warning systems monitor the vehicle's position relative to lane markings on the roadway. When it detects that the vehicle is drifting out of its travel lane unintentionally, or without using a turn signal, the system will alert you with visual or sound warnings. In some systems, the steering wheel or driver's seat will vibrate.



If you do not respond to the warning, Lane Keeping Assist gently steers the vehicle back into its travel lane. In most vehicles, a slight nudge or pull on the steering wheel will override this feature.

https://www.safemobilityfl.com/InVehicleTechnology.htm

These systems work best when driving on highways where roads are mostly straight and lane markings are clear and bright. They are not meant for low-speed, stop-and-go driving.

Drowsiness Alert

This feature tracks how often you drift out of your travel lane and alerts you with a coffee cup or other dashboard symbol suggesting you may be drowsy and need to take a break. Drowsiness Alerts can help you monitor your attentiveness and stay focused on long trips by encouraging you to stop and rest every now and then.

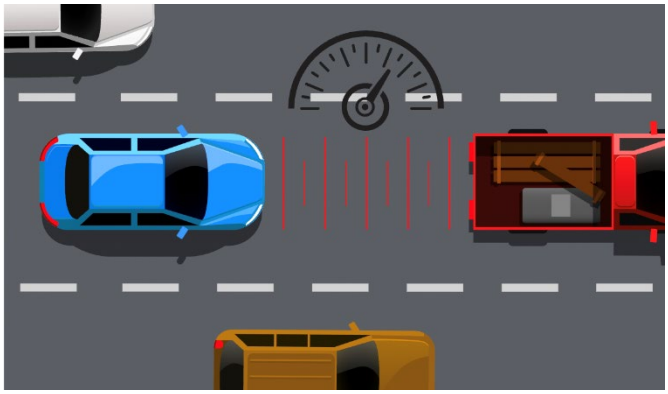
It is important to be aware that this is just a warning. It will not assist with steering the vehicle back into its travel lane.

Adaptive Cruise Control

Adaptive Cruise Control is now a common feature found in many different vehicle makes and models. It allows you to set a fixed speed and following distance from the vehicle in front of you by automatically speeding up or slowing down.

Drivers using Adaptive Cruise Control reported that they change lanes less frequently and experience lower levels of stress when driving long distances.
Although there are many benefits to Adaptive Cruise Control, you should consider the following when using this feature:

- It may not work under poor weather conditions, such as heavy rain or fog.
- Some Adaptive Cruise Control systems can bring the vehicle to a complete stop and then reaccelerate while others only work when traveling at highway speeds.
- Always follow the rules of the road and obey the speed limit.



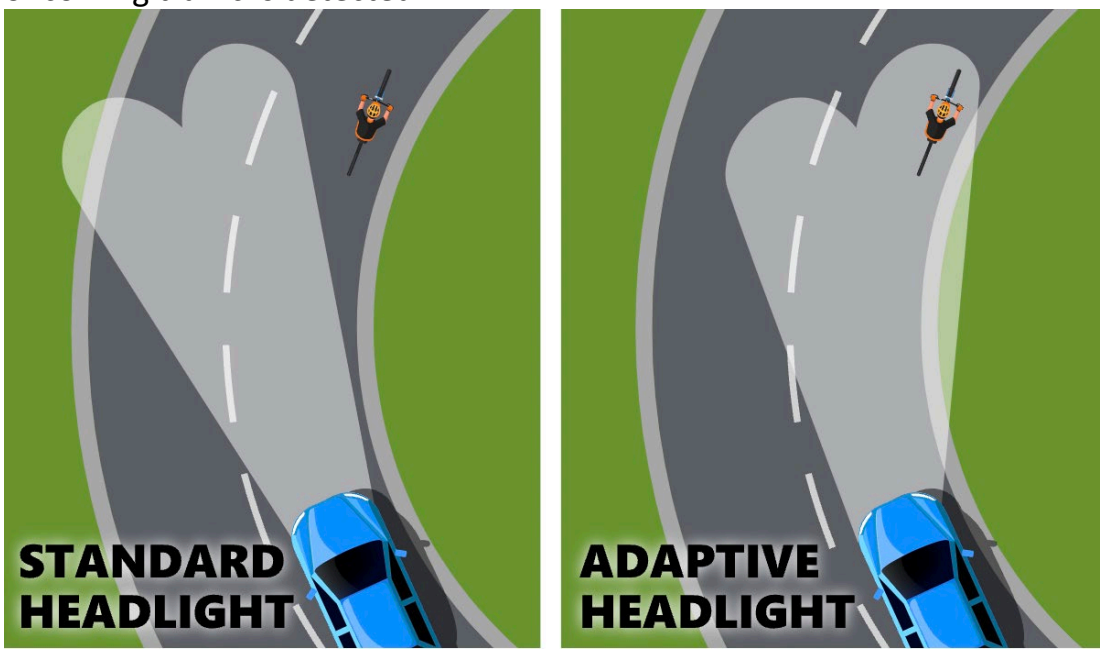
Adaptive Headlights

Due to natural changes in vision, seeing clearly at night can become more difficult as we age. Adaptive headlights can make nighttime driving safer by moving side-to-side as the steering wheel turns, improving our visibility of the road ahead by providing as much light as possible.

Adaptive headlights can help:

- Reduce nighttime crashes,
- Improve the detection of objects, pedestrians, and bicyclists on the roadway, and
- Reduce the glare for oncoming traffic.

Adaptive headlights do not turn on automatically or switch from low beams to high beams when oncoming traffic is detected.



Navigation Help

A navigation system provides you with step-by-step directions to help you reach your destination. This can be especially useful when driving in unfamiliar areas.

Although this technology was designed to increase safety and comfort, it is important to be aware that it has the potential to create unsafe distractions. It is important that you:

- Avoid programming navigation while driving unless for an emergency, and
- Practice using voice commands and touch screen features to become more comfortable with the system before hitting the road.