

# Driving Safety





# Driver-Assisted Technology

Many newer vehicles come equipped with technology that, when grouped together, is called an advanced driver assistance system, or ADAS.

ADAS uses sensors, cameras and other automated technology to detect nearby vehicles, obstacles or human error and correct it accordingly.

Depending on the features of the system, it ranges from brief, emergency corrections all the way up to nearly autonomous driving.

## BLIND SPOT MONITORS

One type of ADAS is a blind spot monitor. Cameras keep an eye on the driver's blind spots and then notify the driver — sometimes audibly, with flashing lights, a wheel vibration or some combination thereof — if something's in their path. Most of the time, blind spot monitors work in conjunction with automatic braking to prevent a collision.

## LANE DEPARTURE SYSTEMS

These systems use cameras and other sensors to help the driver establish their lane and then keep the vehicle there unless the driver signals a turn or a lane switch. If the vehicle detects the car drifting into another lane, it will alert the driver and, in some vehicles,



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take control of the car to move it back into the safe lane.

## FORWARD COLLISION WARNING

These systems monitor the

vehicle's speed and judge the distance between it and objects around it. The system will alert the driver if it senses an imminent collision and, in conjunction with emergency braking

systems, may stop the car before a collision can occur.

## DRIVER MONITORING SYSTEMS

Cameras and sensors don't

only look outside the car. Driver monitoring systems peer inside, using driver facial patterns, steering movements, turn signal use and speed to determine if the driver is fatigued or otherwise unable to drive safely. Some systems will set off a loud alert and vibrate the driver's seat, similar to driving over a rumble strip, to awaken an inattentive driver. If no action is taken, the vehicle may begin to react to possible obstructions on its own.

## REAR CROSS TRAFFIC SENSORS

Sensors in this system look for traffic around the vehicle while reversing and can be particularly helpful when backing out of a parking spot with partially or completely obstructed side vision. These will sound an alert if it senses oncoming traffic and may engage braking systems to stop the car if no driver action is taken.

## CALIBRATION

One drawback of ADAS systems is that it can make formerly straightforward repairs more difficult. Replacing a windshield, for instance, can interfere with cameras and other ADAS sensors and may require the system to be recalibrated to avoid damage. Always consult with your dealer to make sure you understand your ADAS systems, how to operate them and how to turn them off if you need to.



# How to Wear a Seat Belt

One of the safest things a driver can decide to do is to buckle their safety belt. Safety belt use, according to the National Highway Traffic Safety Administration, is at 91.6% in 2022 and saved nearly 15,000 lives.

Seat belts could have saved an additional 2,500 people if they had been wearing seat belts, NHTSA says. Of the 23,824 passenger vehicle occupants killed in 2020, 51% were not wearing seatbelts, the agency says, making the consequences of not buckling up clear enough.

## WHAT DOES A SEAT BELT DO?

A seat belt keeps you safe and secure in your vehicle. In case of a wreck, an unbuckled person can be flung from the car, which is almost always deadly. Without being safely buckled in, airbags, another component of your car designed to protect you, can seriously injure or even kill you.

## PROPER USE OF A SEAT BELT

Wearing a seat belt properly can save your life. But using it improperly can cause serious



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injuries or even kill you.

Seat belt dos:

- Make sure the lap belt and shoulder belt are secured across your pelvis and rib cage. These are the parts of your body that can withstand the forces from a crash the best.
- Place the shoulder belt across the middle of your chest and away from your neck. The lap belt should rest across your hips and not

across your stomach.

- Before you buy a new car, check to make sure its seat belts are a good fit for you. If they don't fit, you can ask your dealer for seat belt adjusters to help you get the best fit.
- If you have an older or classic car with lap belts only, check your vehicle manufacturer about how to retrofit your car with today's safer seat belts.

## SEAT BELT USE FOR CHILDREN

Children can transition from a booster seat and into a car's seat belt between 8-12 years old. Your child must be tall enough to sit without slouching and be able to keep their back against the vehicle's seat, keep their knees naturally bent over the edge of the seat and keep their feet flat on the floor.

The lap belt must lie snugly across the upper thighs and not the stomach while the shoulder belt must be snug across the shoulder and chest, not across their neck or face. Just like adults shouldn't put their seat belts behind their back or under an arm, neither should children. Children should also sit in the back seat, where it's safer, for as long as they can.



# Facing Ultra-Bright Lights

Last year, General Motors recalled nearly a million 2010-2017 GMC Terrain SUVs in the U.S. because the headlight beams were too bright at a certain angle for oncoming drivers. It's a problem that's familiar to many drivers: newer vehicles' headlights are blindingly bright for some other drivers.

## WHY ARE THE HEADLIGHTS SO BRIGHT?

One reason why the headlights are so bright is that SUVs and pickups are more common on today's roads. Those vehicles have taller bodies and are more likely to shine in your eyes if you have a lower car or are on foot.

More of those headlights are LED headlights, too. Those tend to be more blue, which make them seem more bright than older, more yellow headlights. Mark Rea, a scientist at Mount Sinai in New York, says that the eye is more sensitive to higher-wavelength, redder light than lower-wavelength blue light. So the measurement



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system they used to calibrate headlights isn't counting blue light, lights that are more blue, such as LEDs, will feel much brighter. Rea says the LED could look up to 40% brighter.

The Infrastructure Investment and Jobs Act mandates adaptive beam headlights be approved for U.S. use within two years. These head-

lights are essentially always on high beam and cameras and software will instruct the lights to reshape the beam constantly to avoid blinding oncoming drivers or shining in the rearview mirrors of drivers up ahead.

## WHAT CAN HELP?

Dr. Rob Bittner with the

UPMC Eye Center tells CBS News that what you want to avoid is a phenomenon called light scatter.

"If it scatters these bright lights, it can just really kind of make things more challenging for us," Bittner said. "When it comes to driving, it can kind of just cause this glare."

To avoid light scatter, keep

your windshield clean. And avoid looking directly into the oncoming light. Instead, Bittner says, look at the right side of the driving lane. If it really bothers you, Bittner suggests seeing an eye care professional about getting antireflective lenses or tinted nighttime driving lenses to help.

# Safe Driving On Wet Roads

Nearly two-thirds of weather-related crashes happen on wet roads, the U.S. Department of Transportation says.

As rain or flooding gets the pavement wet, the water mixes with oils on the roadway, making the surface slick.

Furthermore, wet weather exacerbates problems like worn tires and already poor visibility from dirty windshields or bad wipers.

Here are some tips for making it home safely on wet roads:

- Slow it down. Reduce your speed so that you can stop safely even if you need to brake suddenly. You'll also reduce the risk of hydroplaning.

- Maintain a safe driving distance between vehicles. You'll need more room to stop on wet pavement, so be extra aware at red lights and stop signs.

- Choose your tires for your weather. If you live in a rainy climate, pick tires that perform well on wet pavement. Your local tire center can show you some great tires for keeping you on the road.

- Properly maintaining those tires is also important. No tire will provide good wet traction at less than 2/32 of an inch of tread. Check your tires regularly and replace them promptly. Make sure to maintain the proper tire pressure; your car's manual or the door jamb will have the proper pressures listed.



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- Drive carefully. Avoid sudden, jerky movements when braking, accelerating or turning.

- If you start to hydroplane, take your foot off the accelerator but don't brake. If you have a manual transmission, push in the clutch and let the vehicle slow down until you can regain control.

- Turn on your lights when you turn on your windshield wipers. Depending on your state, it may be the law.

- Check your windshield wipers regularly. Clean them and install new wiper blades as needed to ensure the best visibility, even in heavy rain.

- Turn off the cruise control.

When the roads are wet, you may need to reduce speed safely by lifting your foot off the accelerator rather than by braking. You can't do this when your cruise control is on.

- Turn around, don't drown. Stay out of flooded areas. Even a few inches of water can push a car into dangerous territory.

It's best to just avoid it.

- Avoid large trucks and buses, which can spray your car and reduce your visibility even more. You should also watch for pedestrians and try to drive in another vehicle's tracks, making it easier for your tires to keep a grip on the road.



# Rules for Pedestrians

In 2020, the National Highway Transportation Safety Administration says that more than 6,516 pedestrians were killed and an estimated 55,000 injured in America.

That's a pedestrian dying nearly every 81 minutes. And everyone is a pedestrian at some point, so it's critical that drivers watch out.

## SAFETY TRIPS FOR DRIVERS

When you're driving, you should look out for pedestrians everywhere, all the time. Even in places you don't expect to see pedestrians and at times you don't expect to see pedestrians. Use extra caution in difficult conditions, such as in bad weather or at night.

You should always yield to pedestrians in a crosswalk and stop well back to give other vehicles an opportunity to see crossing pedestrians as well. You should never pass vehicles stopped at a crosswalk because there may be people crossing that you can't see.

Follow the speed limit and other driving rules at all times, especially in school zones and neighborhoods where people are walking.

## SAFETY TIPS FOR PEDESTRIANS

Pedestrians should follow



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the rules of the road, too, and that includes obeying signs and signals. Walk on sidewalks whenever they're available and if there's no sidewalk, walk facing traffic and as far away from the cars as possible. Only cross streets at crosswalks or intersections and only proceed after looking for cars in all directions, including those turning left or right.

If you need to cross the road and there isn't a crosswalk or

**Pedestrians should follow the rules of the road, too, and that includes obeying signs and signals.**

intersection, locate a well-lit area where you have the best view of traffic. Wait for a gap in traffic where there's enough time for you to cross safely and

continue watching for traffic as you cross. You should look left, right, then left again before crossing.

You should also watch for cars entering or exiting driveways or backing up in parking lots where the driver's vision may be obstructed.

Avoid using electronic devices such as phones and earbuds, which can cause distractions when you're walking. Just like drivers, pedestrians should

be engaged with their surroundings and keeping their eyes and ears open for danger.

## PEDESTRIAN TRAFFIC IS STILL TRAFFIC

Walking is not just good for you but it is a viable mode of transportation and for many, their only form of transportation. It's up to all of us to maintain safe, healthy communities for both pedestrians and drivers.



# Safety for New Drivers

It seems counterintuitive that you spend years keeping kids safe from all kinds of dangers, then hand them the keys to a car.

But learning to drive is a rite of passage for many teens and a goal that the whole family can see that they work safely toward.

## MODELING SAFE DRIVING

One of the most important things you can do for your new driver is to make sure that they see safe driving from you, even early on. Wear your seatbelt, don't text and drive and obey the rules of the road. Talk to your children about why there are certain rules in place and what different signs and signals mean.



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## DISTRACTED DRIVING

Dialing a phone number increases a teen's risk of crashing by six times and texting increases risk by a whopping 23 times. No one should talk or text while driving, but especially not new drivers who don't have the experience to deal with whatever situation the road throws at them.

Talk to your teens about distracted driving and explain that this includes not only using the phone, but also eating while driving or trying to

apply makeup while driving. Even passengers can be distracting at times. Familiarize yourself with the laws in your state about distracted driving and talk to your teen about the consequences. Set your own sets of rules and consequences for distracted driving.

## SPEEDING

The Governors Highway Safety Association found that, from 2000-2011, teens were

involved in 19,447 speeding-related crashes. Talk to your teens about speeding and be a good role model in your own driving. Make teens aware of when they should reduce their speed, such as during bad weather or in other road conditions. The GHSA study also found that teens with a new car were more likely to speed than those driving the family car. The NHTSA urges parents to choose a larger, newer car

rather than a high-performance vehicle when buying their teen a new set of wheels.

## DRIVING UNDER THE INFLUENCE

Underage drinking is illegal in all 50 states and drunken driving laws are strictly enforced. Many states have zero tolerance laws, meaning there can be no alcohol or drugs in the system of underage drivers at any time. Still,

the Centers for Disease Control and Prevention say that teens are more likely than anyone else to be killed in an alcohol-related crash.

You should talk to your teen about underage drinking and drug use and misuse. Never provide alcohol to teens and remind them not to ride in a car with a driver that's under the influence. Let your teen know that they can call you or another trusted adult for a safe ride home.



# What Does DUI Mean?

Most of us know not to drink and drive. But driving under the influence can mean more than just alcohol.

You can be impaired by alcohol or drugs, even the legal, prescribed kind. Driving while impaired is a criminal offense in all 50 states, but the degree of impairment and the severity of punishment depends on many factors, including your age and where you live.

## TESTING

While it's not necessary for a DUI charge, the arresting officer can choose to perform tests to detect impairment and determine the level of impairment. Drivers can refuse these tests, including chemical tests such as blood and breath analysis, but sometimes those refusals result in more stiff penalties, such as the automatic forfeiture of your driver's license.

Police officers can also hold sobriety checkpoints near popular hotspots, where they check every driver going through for signs of impairment. In most states, the impaired driving offense is triggered for adults when the driver's blood alcohol content is greater than the federal limit of 0.08%, but some state laws may enforce a lower BAC. For instance, for minors, the level can be zero.



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## PENALTIES

Every day, about 32 people die in drunken driving crashes, the National Highway Traffic Safety Administration says. There were 11,654 drunken driving deaths in 2020. Alcohol and other substances reduce brain function, impair thinking and reactions. Because so many

people die in crashes, penalties for driving under the influence can be harsh. In fact, as NHTSA points out, increasingly severe penalties for drunken driving have been a major factor in reducing drunken driving deaths since the 1980s.

A first-time offense can cost the driver upwards of \$10,000

in fines and legal fees, and that's just the start. Drivers may also be required to install interlock devices that keep a car from starting without a clean breath analysis.

## WHAT TO DO

The answer is simple, NHTSA says, if you've been

drinking or are under the influence of any substance, legal or illegal, don't get behind the wheel. Don't let your friends and family drive, either, if they've been drinking. If you're hosting a party where alcohol will be served, make sure all your guests leave with a sober driver.