

# Shopping for a safe car

When choosing an automobile, know these important safety differences

## Auto Insurance

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The more safely built the car you buy, the better the chances of your surviving an accident. Protect yourself and your passengers by understanding the factors that make a car safe and making your purchase accordingly.

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## Crashworthiness

The design of features such as car front, sides, roof strength, head restraints and seats can reduce the risk of death or serious injury when a crash occurs—or "crashworthiness." The Insurance Institute for Highway Safety (IIHS) provides ratings for both crashworthiness and crash avoidance and mitigation features, and offers a tool that enables you to look up a car to see its safety rating.

## Vehicle structural design

A good structural design has a strong occupant compartment, known as the safety cage, as well as front and rear ends designed to buckle and bend in a crash to absorb the force of the crash. These crush zones should keep damage away from the safety cage because once the cage starts to collapse, the likelihood of injury increases rapidly.

## Vehicle size and weight

The laws of physics dictate that larger and heavier vehicles are safer than lighter and smaller ones—and are proven by the fact that small cars have twice as many occupant deaths each year as large ones. That said, some big cars are prone to rollovers and other issues, so it's important to review all the factors—a mid-size sedan with a high safety rating might be your best bet.

## Restraint systems

Belts, airbags and head restraints all work together with a vehicle's structure to stabilize and protect people in serious crashes, reducing the chance you'll slam into something hard or get ejected from the crashing vehicle and be injured or killed. Here's what you should look for in restraint systems:

- **Lap/shoulder belts with belt crash tensioners** that will activate early in a collision to reel in belt slack and prevent more forward movement.
- **Airbags in combination with a "comfortably distanced" steering column.** Sitting too close to a deploying airbag can cause serious injuries and even death. Choose a car that allows you to reach the gas and brake pedals comfortably without sitting too close to the steering wheel. Some cars offer telescoping steering column adjustments that may help.
- **Side airbags,** which will protect your chest and may also help keep your head from hitting

interior or intruding structures.

- **Head restraints that can be locked into place.** Ones that don't lock can get pushed down in a crash, increasing the chance of injury.

## Anti-lock brakes

Make sure you know how to use your anti-lock brakes properly. If you were trained on conventional brakes to brake gently on slippery roads or pump your brakes to avoid a skid, you may have to unlearn these habits and use hard, continuous pressure to activate your antilock brakes.

## Daytime running lights

The ignition switch activates the daytime running lights, which are typically high-beam headlights at reduced intensity or low-beam lights at full or reduced power. By increasing the contrast between a vehicle and its backgrounds and making the vehicles more visible to oncoming drivers, these lights can prevent daytime accidents.

## Backup cameras

Rearview video systems (RVS), also known as backup camera increase visibility when a vehicle is backing up. Backup cameras help prevent crashes and also help protect children, senior citizens and pets that might suddenly wander into the car's path.

## Crash avoidance technologies

According to the National Highway Traffic Safety Administration (NHTSA), 94 percent of fatal crashes are because a human being made an error or a poor choice. Ever-improving technologies can minimize injuries and damage from collisions by sensing what's going on around your vehicle and either acting for you or sending an alert. The NHTSA site has in-depth information about vehicle safety technologies, but here are some that you might want to further research.

- **Braking systems** – There are many types of braking systems that sense and engage the cars systems to prevent potential collisions. Some are automatic emergency braking (AEB), dynamic brake support (DBS), and crash imminent braking (CIB). Pedestrian Automatic Emergency Braking (PAEB) senses people in front of the car and brakes accordingly.
- **Warning systems** – Forward collision warning (FCB), lane departure warning (LDW) and blind

spot detection (BSD) systems alert drivers to impending dangers from slow moving vehicles, inadvertent lane drift or from vehicles in or approaching a car's blind spot.

## Automatic crash notification system (ACN)

An ACN will alert 911 if your car is involved in a collision, and can save precious time by sending emergency responders critical information about the crash.

## On the road experience

Other design characteristics can influence injury risk on the road. Some small utility vehicles and pickups are prone to rolling over. "High performance" cars typically have higher-than-average death rates because drivers are tempted to use excessive speed. Combining [a young driver](#) and a high-performance car can be particularly dangerous.

## Additional resources

[Insurance Institute for Highway Safety Car Safety Ratings Tool](#)

[National Highway Traffic Safety Administration \(NHTSA\) – Safety Equipment and Technologies](#)

**Next steps:** Now, [prevent that safe car you bought from being carjacked or stolen.](#)

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