

SHOPPING FOR A

# SAFER CAR

2010



TRUSTED  
200  
YEARS



So you've decided to buy a car, minivan, SUV, or pickup. Now the question is, which one? If you factor safety into your choice (most people do), then you probably want to know, what's the safest vehicle to buy? Safety has numerous aspects, so there's no direct answer, although it's clear that some vehicles are safer than others. You can find safer vehicles in various price and style groups — and you can use this publication to help identify the best choices. Start by recognizing that safety involves **AVOIDING CRASHES** to begin with and then **PROTECTING YOU** if and when a crash occurs.

## CRASH AVOIDANCE

All vehicles have basic features to reduce crash likelihood — lights so other motorists can see you, brakes to stop, etc. New technology is being added to help avoid crashes in the first place. These features alert you if you stray from your lane or get too close to a car in front of you.

Most of the new features haven't been scientifically evaluated yet, but some show promise and one already is proving effective:

### **ELECTRONIC STABILITY CONTROL.**

You'll find it by various trade names (StabiliTrak, Stability Assist, etc.), but the systems are basically the same. They're extensions of antilock brake technology that help drivers maintain control in the worst situation — loss of control at high speed. These systems engage automatically to help bring a vehicle back in the intended line of travel.

Electronic stability control lowers the risk of a fatal single-vehicle crash by about half. It lowers the risk of a fatal rollover crash by as much as 80 percent. To see if a vehicle you're thinking of buying has electronic stability control, go to [iihs.org/ratings/esc/esc.aspx](http://iihs.org/ratings/esc/esc.aspx).

### **DON'T COUNT ON AVOIDING CRASHES.**

Despite everyone's best efforts, millions of crashes occur each year. Tens of thousands of them involve deaths. So the most important aspect of shopping for safety is to choose a crashworthy vehicle — one that reduces death and injury risk during a crash.



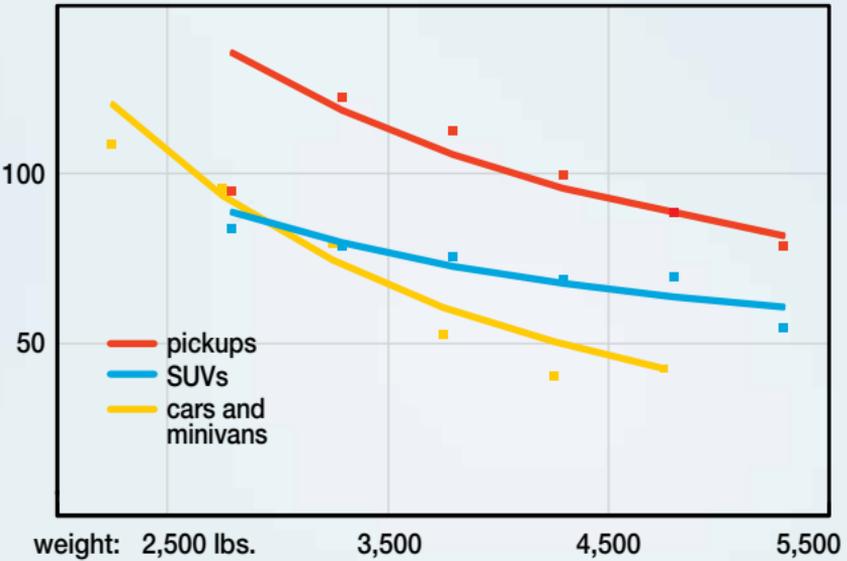
TO CHOOSE FROM A LIST  
OF CRASHWORTHY CARS,  
TURN THE PAGE TO FIND  
THE INSURANCE INSTITUTE  
FOR HIGHWAY SAFETY'S  
**TOP SAFETY PICKS**

# CRASHWORTHINESS

The first crashworthiness attributes to consider are vehicle size and weight. Small, light vehicles generally offer less protection than larger, heavier ones. There's less structure to absorb crash energy, so deaths and injuries are more likely to occur in both single- and multiple-vehicle crashes. If safety is one of your major considerations **PASS UP VERY SMALL, LIGHT VEHICLES**. This doesn't mean you have to buy the heaviest vehicle you can find. It wouldn't necessarily be safer because those weighing more than about 4,500 pounds afford only small injury risk reductions. At the same time, they increase the injury risk for people riding in other vehicles with which they collide.

## BIGGER GENERALLY IS SAFER

DRIVER DEATHS PER MILLION REGISTERED VEHICLES



*Note: Rates are adjusted to account for some differences in driver age and sex within and between vehicle types. Remaining differences in vehicle use patterns and driver demographics may account for some of the death rate differences.*

While the risk of death generally is higher in smaller and lighter cars, SUVs, and pickups, vehicle size and weight don't tell the whole story. There are safety differences among vehicles that are similar in size and weight. Some light car models, for example, are safer than others. Some midweight SUVs are safer than others. And so on. This is because some models have **MORE CRASHWORTHY DESIGNS** than others. You can't tell the difference by looking at the vehicles. You need to compare their crash test results. Most popular vehicles have been tested, so buy one with **GOOD CRASHWORTHINESS RATINGS** in front, side, rollover, and rear-end crashes.

To shop with safety in mind, first determine the vehicle type and size you want, keeping in mind that bigger generally is safer. Then it's easy to shop for a safer vehicle by choosing one that earns the top award from the Insurance Institute for Highway Safety.

Winners afford good protection in front, side, rear, and rollover crashes. They have electronic stability control to help motorists avoid crashes. Winners for 2010:



### **LARGE CARS**

Buick LaCrosse  
Ford Taurus  
Lincoln MKS  
Volvo S80

### **MIDSIZE CARS**

Audi A3  
Chevrolet Malibu built after November 2009  
Chrysler Sebring 4-door with optional ESC  
Dodge Avenger with optional ESC  
Mercedes C class  
Subaru Legacy  
Subaru Outback  
Volkswagen Jetta sedan  
Volkswagen Passat sedan  
Volvo C30

### **SMALL CARS**

Honda Civic 4-door with optional ESC, except Si  
Kia Soul  
Nissan Cube  
Subaru Impreza except WRX  
Volkswagen Golf 4-door

### **MIDSIZE SUVs**

Dodge Journey  
Subaru Tribeca  
Volvo XC60  
Volvo XC90

### **SMALL SUVs**

Honda Element  
Jeep Patriot with optional side torso airbags  
Subaru Forester  
Volkswagen Tiguan

To compare ratings for other vehicles, go to [www.iihs.org](http://www.iihs.org).

## CHOOSING A **CRASHWORTHY DESIGN**

Structure and restraints are the main aspects of a vehicle's design that determine its crashworthiness. Good **STRUCTURE** means a strong occupant compartment (safety cage), crumple zones to absorb the force of a serious crash, side structure that can manage the force of a striking vehicle or struck object, and a strong roof so it doesn't collapse in on you in a rollover. Until recently **RESTRAINTS** included a basic safety belt and frontal airbags. Now there's more. Crash-activated tensioners reduce belt slack. Force limiters can reduce rib injury risk from the belt itself. The inflation characteristics of advanced frontal airbags are geared to specific crash circumstances. Other airbags protect your head and chest in side impacts. Seats and head restraints are being upgraded to reduce neck injuries in rear crashes. The best way to evaluate a vehicle's structural design and restraints is in a dynamic test. Based on test performance, a vehicle earns a crashworthiness rating from good to poor.

## **FRONTAL CRASHWORTHINESS**

Crash testing for consumer information began with the federal government's New Car Assessment Program of 35 mph **FRONTAL CRASHES HEAD ON** into a rigid barrier. A demanding assessment of vehicle restraints, this test has led to numerous restraint system improvements. The Insurance Institute for Highway Safety also conducts frontal tests for consumer information. These **40 MPH OFFSET TESTS** complement the government tests, spurring improvements in vehicle structure so that now most passenger vehicles earn good ratings. Look for good ratings in both sets of tests.



Go to [iihs.org/ratings](https://www.iihs.org/ratings) and [safercar.gov](https://www.safercar.gov) to find and compare vehicle crashworthiness based on frontal crash tests. Pick a vehicle to buy that has the highest ratings in these tests.

## SIDE CRASHWORTHINESS

The government and the Insurance Institute for Highway Safety rate vehicles based on tests that simulate **FRONT-INTO-SIDE** crashes. In both tests, vehicles are struck by a moving barrier, but the barriers differ so that the government test doesn't assess the risk to people's heads when their vehicles are struck by high-riding ones. Look for good ratings in both tests, especially the one that assesses head protection in side impacts, and make sure any vehicle you're thinking of buying has side airbags that protect people's heads. Studies of real-world crashes indicate that these substantially reduce fatality risk. If side airbags are optional in a vehicle you're thinking of buying, go ahead and purchase them. Some side airbags also are designed to protect you in a rollover.



In the Insurance Institute for Highway Safety's side crash test, the striking barrier is higher than in the federal government's test, so it mimics crashes in which occupants' heads are at risk. Choose a vehicle that earns a good rating in this test.

## ROLLOVER CRASHES

When vehicles roll, their roofs hit the ground and crush. Stronger roofs crush less, so the Insurance Institute for Highway Safety rates roof strength to help consumers pick vehicles that are crashworthy in rollovers. To earn a good rating, a roof must withstand a force 4 times the vehicle's weight before reaching 5 inches of crush. A roof this strong reduces injury risk in a single-vehicle rollover by about 50 percent, compared with a roof meeting only minimum safety requirements.

## REAR CRASHWORTHINESS

Compared with front, side, and rollover crashes, rear impacts are less likely to threaten your life. Yet rear-enders occur frequently and often cause neck injuries to people in struck vehicles. Such injuries can be painful and involve costly, long-term consequences. Here's how the injuries happen: When a vehicle is struck from behind, an occupant suddenly goes forward with the seat. If the head isn't supported it will lag behind, bending and stretching the neck in a **WHIPLASH MOTION**. Vehicle seats and head restraints can be designed to reduce whiplash injuries, so the Insurance Institute for Highway Safety first measures restraint geometry (the higher and closer to the back of the head, the better). If head restraint geometry is at least acceptable, then a simulated rear impact of the seat and restraint together completes the evaluation. Look for vehicles that earn good ratings to minimize



Good seat/head restraints start with good geometry. The restraints are positioned high and close behind the head.

neck injury risk in rear-end crashes, but be careful. You'll have to pay close attention to the seat options.

A complication is that vehicles are sold with optional seat packages, so one model may include multiple seat designs that earn different ratings. You'll have to match the seats in a vehicle you want to buy with the specific rating for that seat package. Before you drive away, check to see if the head restraint needs to be adjusted to fit behind your head. If it does, **ADJUST IT** for good protection.

## REMEMBER THE BASICS

Now that you know how to factor safety into your choice of a vehicle to buy, keep this in mind: Vehicle size matters. So do crash avoidance features and crashworthiness ratings. You don't have to forego buying a stylish vehicle to get one that's safer. You can have both.

TO FIND AND COMPARE  
SAFETY RATINGS FOR  
HUNDREDS OF VEHICLES,  
GO TO [IIHS.ORG/RATINGS](http://IIHS.ORG/RATINGS)  
AND [SAFERCAR.GOV](http://SAFERCAR.GOV)

# Safe Driving for a Lifetime

For more than 25 years, The Hartford has made a commitment to keep drivers safely on the road for a lifetime. Why? Because we want to participate in enhancing the quality of life as we age — and driving is important to that quality of life that most of us cherish.

*Shopping for a Safer Car* provides you with valuable information about which cars offer the best crash protection in an accident. Driving a safe car is essential to keeping you and your passengers safe on the road, and so too is being a safe driver.

Here are three steps you can take to maintain safe driving skills throughout your lifetime:

- **Be a Healthy Driver.** Take care of your health by getting regular check-ups, considering the side-effects of any medications you are taking, having a thorough eye exam, and exercising regularly.
- **Keep Learning.** Driving safely over a lifetime requires knowledge and skills. Defensive driver programs provide a baseline of knowledge about safe driving that can enhance your skills at any age. Drivers who keep learning can stay safer on the road.
- **Adjust to Changes in Your Driving Skills.** Be aware of age-related changes and make appropriate adjustments to your driving, such as limiting driving at night, during rush hour, or long distances. It's important to assess your driving skills on a regular basis. If you have a medical condition, be sure you understand the interaction between that condition and driving. You can also have your skills assessed by a medical professional specifically trained to understand driving issues, and receive driving rehabilitation if needed.

For more information on safe driving for a lifetime, go to The Hartford's website at [safedrivingforalifetime.com](http://safedrivingforalifetime.com).



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