

SHOPPING FOR A

SAFER
CAR

2012



INSURANCE INSTITUTE
FOR HIGHWAY SAFETY

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, 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. 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. Two features already are reducing crashes: forward collision avoidance and adaptive headlights.

Forward collision avoidance alerts you if you get too close to a car in front and can brake if you don't respond in time. Other systems brake without warning and are designed for low-speed traffic. Adaptive headlights shift direction as you steer to help you see better on curves in the dark. Analysis by the Highway Loss Data Institute indicates that forward collision avoidance and adaptive headlights are reducing insurance claims. To find vehicles with these features, go to iihs.org/crash_avoidance.



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

ELECTRONIC STABILITY CONTROL is a proven crash avoidance feature that's standard on 2012 and later models.

ESC is an extension of antilock brake technology that helps drivers maintain control on curves and slippery roads. ESC engages automatically to help keep the vehicle in the intended line of travel. It lowers the risk of a fatal single-vehicle crash by about half and the risk of a fatal rollover by as much as 80 percent. To find earlier models with ESC, go to 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 it's also important to choose a crashworthy vehicle — one that reduces death and injury risk in a crash.



CRASHWORTHINESS

The first crashworthiness attributes to consider are vehicle size and weight. Smaller, lighter 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. Above about 4,500 pounds, the injury reduction benefits of more weight are reduced. At the same time, the heaviest vehicles increase the injury risk for people riding in other vehicles with which they collide.

**BIGGER
GENERALLY
IS SAFER**

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. This is because some models have **MORE CRASHWORTHY DESIGNS** than others. You can't tell the difference just by looking. You have to compare crash test results. Most popular models have been tested, so buy one with **GOOD CRASHWORTHINESS RATINGS** in front, side, rollover and rear crashes.

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 structures that can manage the force of a striking vehicle or struck object and a strong roof that won'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 restraint system improvements. The Insurance Institute for Highway Safety also conducts frontal tests for consumer information. A **40 MPH MODERATE OVERLAP TEST** complements 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.

2012 WINNERS:

MINICARS

Fiat 500
built after
July 2011
Ford Fiesta
Honda Fit
Nissan Versa
sedan
Toyota Yaris
hatchback
(4-door)

SMALL CARS

Acura ILX
2013 models
Chevrolet Cruze
Chevrolet Sonic
Chevrolet Volt

Ford Focus
Honda Civic
4-door
Honda CR-Z
Honda Insight
Hyundai Elantra
Kia Forte
sedan models
Kia Soul
Lexus CT 200h
Mazda 3
Mini Cooper
Countryman
Mitsubishi Lancer
except Ralliart and
Evolution models
Nissan Cube
Nissan Juke
Nissan Leaf
Scion FR-S
2013 models
Scion tC
Scion xB

Scion xD
Subaru BRZ
2013 models
Subaru Impreza
Toyota Corolla
Toyota Prius
Toyota Prius c
Toyota Prius Plug-in
Volkswagen Golf
4-door models
Volkswagen GTI
4-door models

MIDSIZE MODERATELY PRICED CARS

Audi A3
Buick Verano
Chevrolet Malibu
Chevrolet Malibu
redesigned 2013 models
Chrysler 200
4-door models
Dodge Avenger
Ford Fusion
Honda Accord
4-door models
Hyundai Sonata
Kia Optima
Subaru Legacy
Subaru Outback
Toyota Camry
Toyota Prius v
Volkswagen Jetta
sedan & SportWagen
Volkswagen Passat
Volvo C30



THESE WINNERS DO THE BEST JOB OF
PROTECTING PEOPLE IN FRONT, SIDE,
ROLLOVER AND REAR CRASHES.



MIDSIZE LUXURY/NEAR LUXURY CARS

Acura TL
built after Sept. 2011
Acura TSX
sedan | Sport Wagon
Audi A4
sedan
BMW 3 series
sedan models
Lincoln MKZ
Mercedes C-Class
Volkswagen CC
2012-13 models
except 4WD v6
Volvo S60

LARGE FAMILY CARS

Buick LaCrosse
Buick Regal
Chrysler 300
Dodge Charger
Ford Taurus
2012-13 models
Hyundai Azera
Toyota Avalon

LARGE LUXURY CARS

Audi A6
BMW 5 series
except 4WD and v8
Cadillac CTS
sedan models
Hyundai Equus
Hyundai Genesis
Infiniti M37/M56
except M56 4WD
Lexus GS
2013 models
Lincoln MKS
2012-13 models

Mercedes E-Class
sedan & coupe
Saab 9-5
Volvo S80

SMALL SUVS

Ford Escape
2013 models
Honda CR-V
Hyundai Tucson
Jeep Patriot
w/ opt. side torso airbags
Kia Sportage
Mazda CX-5
2013 models
Mitsubishi Outlander
Sport
Subaru Forester
Volkswagen Tiguan

MIDSIZE SUVS

Chevrolet Equinox
Dodge Durango
Dodge Journey
Ford Edge
2012-13 models
Ford Explorer
2012-13 models
Ford Flex
2012-13 models
GMC Terrain
Honda Pilot
Hyundai Santa Fe
Jeep Grand
Cherokee
Kia Sorento
2012-13 models
Subaru Tribeca
Toyota Highlander
Toyota Venza

MIDSIZE LUXURY SUVS

Acura MDX
Acura RDX
2013 models
Audi Q5
BMW X3
Cadillac SRX
Infiniti EX35
Lexus RX
Lincoln MKT
2012-13 models
Lincoln MKX
2012-13 models
Mercedes GLK
Mercedes M-Class
Saab 9-4X
Volvo XC60
Volvo XC90

LARGE SUVS

Buick Enclave
Chevrolet Traverse
GMC Acadia
Volkswagen Touareg

MINIVANS

Chrysler Town &
Country
Dodge Grand Caravan
Honda Odyssey
Toyota Sienna
Volkswagen Routan

LARGE PICKUPS

Ford F-150
crew cab models
Honda Ridgeline
Toyota Tundra
crew cab models

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.

However, the barriers differ, and 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 considering, go ahead and get them. Many side airbags, especially in SUVs and pickups, 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 requirements for 2012 and earlier models.



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 seats/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 especially crashworthiness ratings. You don't have to forego 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
AND SAFERCAR.GOV



1005 N Glebe Road
Arlington, VA 22201 USA

IIHS 703/247-1500

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Amica Mutual Insurance Company
ARI Insurance Companies
Auto Club Enterprises
Auto Club Group
Bankers Insurance Group
Bituminous Insurance Companies
California Casualty Group
California State Auto Group
Capital Insurance Group
Chubb & Son
Colorado Farm Bureau Mutual Insurance Company
Concord Group Insurance Companies
Cotton States Insurance
COUNTRY Financial
Direct General Corporation
Discovery Insurance Company
Driver's Insurance Group
Erie Insurance Group
Esurance
Farm Bureau Financial Services
Farm Bureau Insurance of Michigan
Farm Bureau Mutual Insurance Company of Idaho
Farmers Insurance Group of Companies
Farmers Mutual Hail Insurance Company of Iowa
Farmers Mutual of Nebraska
Fireman's Fund Insurance Company
Florida Farm Bureau Insurance Companies
Frankenmuth Insurance
Gainsco Insurance
GEICO Group
Georgia Farm Bureau Mutual Insurance Company
GMAC Personal Lines Insurance
Goodville Mutual Casualty Company
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Hanover Insurance Group
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Homeowners of America Insurance Company
Horace Mann Insurance Companies
ICW Group
Imperial Fire & Casualty Insurance Company
Indiana Farmers Mutual Insurance Company
Infinity Property & Casualty
Kemper Preferred
Kentucky Farm Bureau Insurance
Liberty Mutual Insurance Company
Louisiana Farm Bureau Mutual Insurance Company
Maryland Automobile Insurance Fund
Mercury Insurance Group
MetLife Auto & Home
MiddleOak
Mississippi Farm Bureau Casualty Insurance Company
MMG Insurance
Mutual of Enumclaw Insurance Company
Nationwide
New Jersey Manufacturers Insurance Group
NLC Insurance Companies, Inc.
Nodak Mutual Insurance Company
Norfolk & Dedham Group
North Carolina Farm Bureau Mutual Insurance Company
Northern Neck Insurance Company
Old American County Mutual Fire Insurance
Old American Indemnity Company
Oregon Mutual Insurance
Pekin Insurance
PEMCO Insurance
Plymouth Rock Assurance
Progressive Corporation
The Responsive Auto Insurance Company
Rockingham Group
Safeco Insurance
Samsung Fire & Marine Insurance Company
SECURA Insurance
Sentry Insurance
Shelter Insurance
Sampo Japan Insurance Company of America
South Carolina Farm Bureau Mutual Insurance Company
Southern Farm Bureau Casualty Insurance Company
State Auto Insurance Companies
State Farm
Tennessee Farmers Mutual Insurance Company
Texas Farm Bureau Insurance Companies
Tower Group Companies
The Travelers Companies
United Educators
USAA
Utica National Insurance Group
Virginia Farm Bureau Mutual Insurance
West Bend Mutual Insurance Company
Young America Insurance Company
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