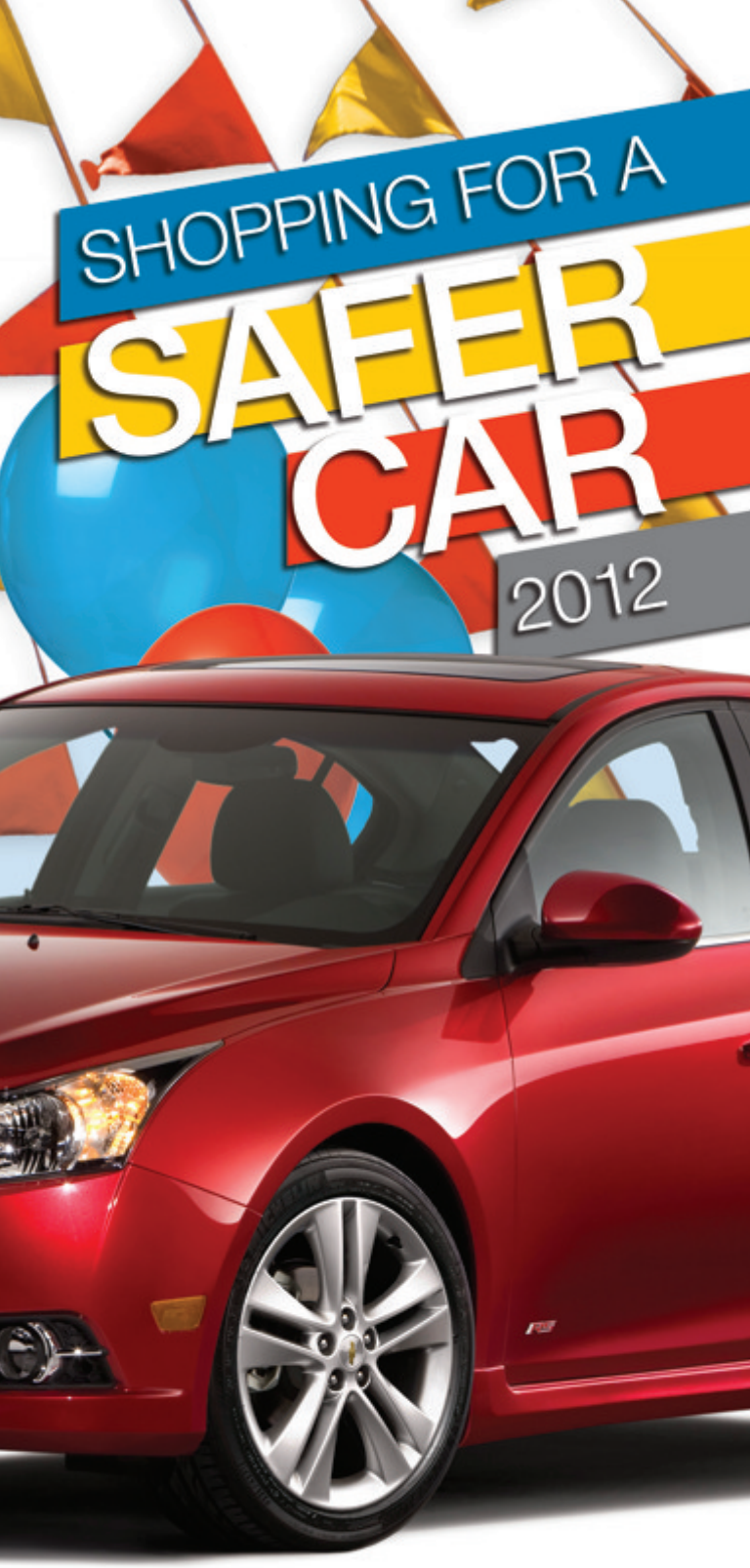
# SHOPPING FOR A SAFER CAR 2012



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 (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.

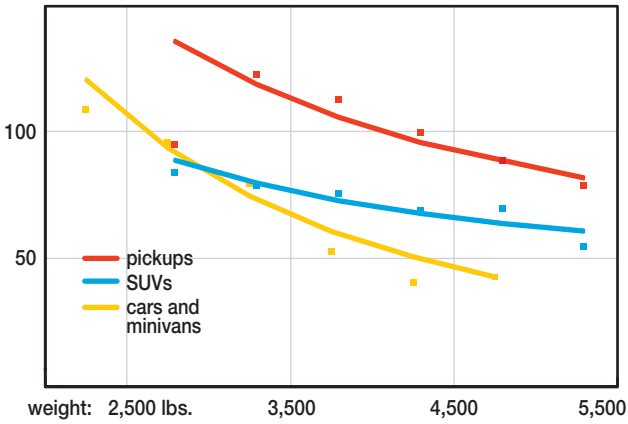
***DON'T COUNT ON AVOIDING CRASHES.*** Despite everyone's best efforts, millions of crashes occur each year. Tens of thousands of them involve deaths. So the most important aspect of shopping for safety is to choose a crashworthy vehicle — one that reduces death and injury risk during a crash.

# ***CRASH***WORTHINESS

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 have 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.

# 2012 WINNERS:

### *MINICARS*
Fiat 500
Ford Fiesta
Honda Fit
Toyota Yaris

### *SMALL CARS*
Chevrolet Cruze
Chevrolet Sonic
Chevrolet Volt
Ford Focus
Honda Civic
Honda CR-Z
Honda Insight
Hyundai Elantra
Kia Forte
Kia Soul


***THESE WINNERS DO THE BEST JOB OF PROTECTING PEOPLE IN CRASHES. TO HELP AVOID CRASHES, THEY HAVE ELECTRONIC STABILITY CONTROL.***

Lexus CT 200h
Mazda 3
Mini Cooper Countryman
Mitsubishi Lancer
Nissan Cube
Nissan Juke
Nissan Leaf
Scion tC
Scion xB
Scion xD
Subaru Impreza
Toyota Corolla
Toyota Prius
Volkswagen Golf
Volkswagen GTI

### *MIDSIZE MODERATELY PRICED CARS*
Audi A3
Buick Verano
Chevrolet Malibu
Chrysler 200
Dodge Avenger
Ford Fusion
Honda Accord
Hyundai Sonata
Kia Optima
Subaru Legacy
Subaru Outback
Toyota Prius v
Toyota Camry
Volkswagen Jetta
sedan & SportWagen
Volkswagen Passat
Volvo C30

### *MIDSIZE LUXURY/NEAR LUXURY CARS*
Acura TL
Acura TSX
Audi A4
Lincoln MKZ
Mercedes C-Class
Volkswagen CC
Volvo S60

### *LARGE FAMILY CARS*
Buick LaCrosse
Buick Regal
Chrysler 300
Dodge Charger
Ford Taurus
Toyota Avalon

### *LARGE LUXURY CARS*
Audi A6
BMW 5 series
Cadillac CTS
Hyundai Equus
Hyundai Genesis
Infiniti M
Lincoln MKS
Mercedes E-Class
sedan & coupe
Saab 9-5
Volvo S80

### *SMALL SUVs*
Honda CR-V
Hyundai Tucson
Jeep Patriot
w/ opt. side torso airbags
Kia Sportage
Subaru Forester
Volkswagen Tiguan

### *MIDSIZE SUVs*
Chevrolet Equinox
Dodge Durango
Dodge Journey
Ford Edge
Ford Explorer
Ford Flex
GMC Terrain
Honda Pilot
Hyundai Santa Fe
Jeep Grand Cherokee
Kia Sorento
Subaru Tribeca
Toyota Highlander
Toyota Venza

### *MIDSIZE LUXURY SUVs*
Acura MDX
Audi Q5
BMW X3
Cadillac SRX
Infiniti EX35
Lexus RX
Lincoln MKT
Lincoln MKX
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 Gr. Caravan
Honda Odyssey
Toyota Sienna
Volkswagen Routan

### *LARGE PICKUPS*
Ford F-150
Honda Ridgeline
Toyota Tundra

# CHOOSING A ***CRASH***WORTHY 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 and 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. 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 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 neck injury risk in rear-end crashes, but be careful. You'll have to pay close attention to the seat options.

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

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**

# INSURANCE INSTITUTE FOR HIGHWAY SAFETY

AAA Northern California, Nevada, and Utah
ACE Private Risk Services
Affirmative Insurance
Agency Insurance Company of Maryland
Alfa Alliance Insurance Corporation
Alfa Insurance
Allstate Insurance Group
American Family Mutual Insurance
American National Property and Casualty Company
Ameriprise Auto & Home
Amica Mutual Insurance Company
ARI Insurance Companies
Auto Club Enterprises
Auto Club Group
Bituminous Insurance Companies
California Casualty 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
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
First Acceptance Corporation
Florida Farm Bureau Insurance Companies
Frankenmuth Insurance
Gainsco Insurance
GEICO Group
Georgia Farm Bureau Mutual Insurance Company
GMAC Personal Lines Insurance
Grange Insurance
Hallmark Insurance Company
Hanover Insurance Group
The Hartford
Haulers Insurance Company, Inc.
Homeowners of America Insurance Company
Horace Mann Insurance Companies
ICW Group
Imperial Fire & Casualty Insurance Company
Infinity Property & Casualty
Kemper Preferred
Kentucky Farm Bureau Insurance
Liberty Mutual Insurance Company
Louisiana Farm Bureau Mutual Insurance Company
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
Oklahoma Farm Bureau Mutual Insurance Company
Old American County Mutual Fire Insurance
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
Sompo 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
Tokio Marine Nichido
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