



# Used Car Safety Ratings

BUYER'S  
GUIDE

Passenger vehicles built 1996-2014

## 2016-17 UPDATE

**IN A CRASH**  
how well will your car protect  
you from death or serious injury?



Government of South Australia  
Department of Training,  
Transport and Infrastructure



Australian Government  
Department of Infrastructure  
and Regional Development



Queensland  
Government



State Insurance  
Regulatory Authority



vic roads

NSW TRANSPORT AGENCY  
NSW.TRANSPORT.AGENT



ROAD  
SAFETY  
COMMISSION



For the better



Transport  
for NSW



New Zealand

**You've got your sights set on that car.** It's the right price, looks good, and it's the perfect size for what you need. But there is one critical factor you may not have thought about: it is important that your vehicle offers you good protection from injury in a crash.

The Used Car Safety Ratings charts on the reverse of this brochure provide you with the crash safety rating for the driver. They show you how well each vehicle protects its driver from death or serious injury in a crash.

It is also important that your vehicle offers good protection to other road users with which it might collide, including pedestrians, cyclists and motorcyclists, or the drivers of other vehicles. For example some large SUVs are more likely to cause serious injuries to other road users in a crash than most other vehicles. Those vehicles which provide excellent protection from injury for their own drivers as well as for other road users in the crash receive a "Safe Pick" rating. If you are serious about reducing road trauma, you need to consider how your vehicle protects other road users as well as you, the driver.

## **IF YOU CARE ABOUT THE SAFETY OF YOURSELF AND OTHERS, CHOOSE ONE OF THE MODELS WITH A "SAFE PICK" LABEL.**

This brochure gives safety ratings for 266 vehicle models which cover most of the popular vehicles in the Australian and New Zealand vehicle fleets manufactured from 1996 to 2014.

It's worth taking a few minutes to read this brochure and find out how the vehicle you want to buy compares on the safety front. Those few minutes could save a life – your own, your passengers' or that of another road user.



## THE RATINGS

The Used Car Safety Ratings show that, on average, newer models provide their drivers with better protection from injury in a crash. These improvements come from better structural designs, an increase in the fitting of safety features such as front, side, curtain and knee airbags, more advanced seat belt systems and vehicle interiors built with more energy-absorbing materials.

Another consistent trend is that there is significant variation in the ratings within vehicle categories, even between vehicle models of the same age. And some vehicle models, including recent ones, provide good protection for their drivers but present a high risk of injury to other road users in a crash. The Used Car Safety Ratings assist buyers to select vehicle models that provide the best protection for all road users including themselves.

These ratings are based on real-world crash data up until 2014, the latest available for the ratings in this brochure. Many new vehicle models and some very low sales volume vehicle models of all ages are not covered by these ratings due to insufficient real-world crash data to enable those models to be rated accurately. Buyers considering a new or late model vehicle, particularly in the light and small categories, that is not listed in this brochure should check the ANCAP safety ratings and look for a vehicle which holds the maximum 5 star ANCAP safety rating – see [www.ancap.com.au](http://www.ancap.com.au).

## PROTECTING YOU IN A CRASH

If all vehicles were fitted with the latest vehicle safety features, the number of fatal and disabling crash injuries could be significantly reduced.

Safety features that may significantly reduce the risk of death or serious injury in the event of a crash include:

- front, side, curtain and knee airbags
- seat belts designed to work with airbags
- crumple zones
- collapsible steering columns
- high strength materials in the structure

## MYTHS ABOUT VEHICLE SAFETY

**MYTH:** You can take more risks if you've got a vehicle with safety features – they will save you in a crash.

**FACT:** While safety features are more likely to increase your chances of surviving a crash, they don't make you indestructible. Safety features won't necessarily save you from death or serious injury, particularly at higher speeds or if you're impaired or not wearing your seat belt.

**MYTH:** A safe vehicle is more expensive.

**FACT:** Many reasonably priced vehicle models score very well in the safety ratings and better than some of the more expensive models.

**MYTH:** Older vehicles tend to be bigger and heavier, and therefore safer.

**FACT:** Older vehicles are shown from crash records to be less safe on average than newer vehicles, due to fewer safety features and less sophisticated design.

## HOW THESE SAFETY RATINGS ARE CALCULATED

Records from over 7.5 million vehicles in police-reported road crashes in Australia and New Zealand between 1987 and 2014 were analysed by Monash University's Accident Research Centre. The ratings were calculated using an internationally reviewed method and are influenced by the vehicle's mass, the structural design of the body, and the safety features fitted to the vehicle, such as airbags and types of seat belts.

Each of the driver protection ratings in the 2016 update has been recalculated based on the most recent crash data available so they are **not comparable with the ratings published in previous years**. The ratings compare the safety of each vehicle model to all other used vehicles currently available. As the safety of new vehicles is constantly improving, the same models can have different ratings from previous years. Models of vehicles that cause lower injuries to other road users with which they collide, including other drivers, pedestrians, cyclists and motorcyclists, as well as providing excellent protection for their own driver, and are fitted with Electronic Stability Control (ESC) are awarded the "Safe Pick" label. In some models, ESC was optional so, if interested in one of these, check to see if it has ESC.

The score for each individual model can be compared against the ratings for all other vehicles.

The driver protection ratings are about the risk of death or serious injury to the driver of the vehicle in the event of a crash. The ratings are not about the risk of being involved in the crash in the first place, which is generally determined by a range of factors including, vehicle technology, driver behaviour, vehicle condition and the road environment.

**Question:** Won't certain kinds of vehicles score a good rating because of the types of people who drive them or where they are driven?

These factors were taken into account as much as possible when the data were analysed. The ratings were adjusted for factors such as driver gender and age, type of road user involved, speed limit at the crash location, number of vehicles involved, crash configuration, and year and location of crash. As far as possible the ratings are about the contribution of the vehicle to injury outcomes in a crash and not who was driving the vehicle or where it crashed.

# WHAT'S THE DIFFERENCE BETWEEN USED CAR AND ANCAP SAFETY RATINGS?

ANCAP safety ratings are assessed by a combination of data obtained from the simulation of common crash scenarios undertaken on new vehicles in a controlled laboratory setting, the features that can help the vehicles avoid a crash or better protect their occupants in a crash, and the risk the vehicles pose to pedestrians in a crash. Used Car Safety Ratings, as listed in this brochure, are calculated using data from millions of police reports on actual crashes involving a range of drivers and all types of driving conditions.

The Used Car Safety Ratings listed in this brochure are all calculated on a consistent set of criteria and all updated annually based on the most recent real world data. They can therefore be compared across all categories. The Used Car Safety Ratings 'Safe Pick' further identifies vehicles that provide the best protection for both their own drivers and other road users in a crash and are fitted with ESC.

Any vehicle safety rating system can only provide an indication of the relative levels of protection between vehicles you can expect in the event of a crash. Whether or not you die or are seriously injured in a crash also depends on how safely you drive your vehicle and the circumstances of each particular crash.

## FEATURES TO ASSIST AVOIDING A CRASH

An increasing number of vehicles are being equipped with safety features that help drivers avoid a crash and these should be considered when purchasing a used car. Some of these features are:

- Autonomous Emergency Braking (AEB) including Pedestrian Detection
- Electronic Stability Control (ESC)
- Anti-lock Brake System (ABS)
- Lane departure warning
- Blind Spot Warning
- Traction Control
- Brake Assist

In deciding between different vehicles, or different models of the same vehicle, always choose the one with more of these features fitted. ESC and AEB particularly have been shown to be highly effective in avoiding crashes.



## MORE ABOUT THE VEHICLE SAFETY RESEARCH GROUP

The UCSRs are the main output from the Vehicle Safety Research Group research program. There have been a number of highlights over the 23 years of publication in refining and extending the ratings. The focus of the VSRG program has become much broader than just the ratings. Key areas of vehicle safety explored by the program include assessment of vehicle safety technologies, modelling and projection of vehicle fleet composition and its effects on safety, estimating crash risk, consideration of the safety implications of vehicle choice on high risk road user groups and examining the relationship between ANCAP and real world crash outcomes.

Some specific outcomes of the Group are:

- Investigation of the effectiveness of vehicle safety technologies including ABS braking systems, frontal and side airbag systems and electronic stability control.
- Analysis of the influence of vehicle colour on crash risk.
- Estimation of trends in light vehicle road trauma related to crashes involving heavy vehicles and predicting the likely impact of forecast rapid growth in heavy vehicle travel.
- Estimation of crash risks by vehicle type including motorcycles and analysis of the effects of vehicle choice on overall crash risk.
- Extensive analysis of the crash risks and injury outcomes associated with 4WD vehicles compared to other regular passenger cars.
- Analysis of vehicle choices made by both older drivers and young drivers and their influence on secondary safety outcomes relative to the key crash types in which they are involved and including assessment of the potential benefits of safer vehicle choices for these age groups.
- Assessment of the effectiveness of novice driver vehicle restrictions and the potential for improving the restriction protocols to further reduce novice driver road trauma.
- Investigation of the potential for improving the consistency between Used Car Safety Ratings and ANCAP new car safety ratings.

# WHERE TO FIND OUT MORE

For more information or answers to frequently asked questions about purchasing a safe used vehicle, visit the website or call the enquiry number of the organisation nearest to you:

## **New South Wales**

NRMA: [www.mynrma.com.au/ucsr](http://www.mynrma.com.au/ucsr) Phone 13 11 22

Transport for New South Wales: [www.transport.nsw.gov.au](http://www.transport.nsw.gov.au)  
Phone 02 8202 2200

## **Victoria**

RACV: [www.racv.com.au](http://www.racv.com.au) Phone 03 9790 2190

VicRoads: [www.vicroads.vic.gov.au](http://www.vicroads.vic.gov.au)

Transport Accident Commission: [www.howsafeisyourcar.com.au](http://www.howsafeisyourcar.com.au)

## **Western Australia**

RAC: [www.rac.com.au](http://www.rac.com.au) Phone 1800 502 328

Road Safety Commission: [www.rsc.wa.gov.au](http://www.rsc.wa.gov.au)  
Phone 1300 999 772

## **Queensland**

Department of Transport and Main Roads, Queensland:  
[www.tmr.qld.gov.au](http://www.tmr.qld.gov.au) Phone 07 3114 5844

RACQ Technical Advisory Service: [www.racq.com](http://www.racq.com)  
Phone 07 3666 9148 or 1800 623 456

## **South Australia**

RAA: [www.raa.com.au](http://www.raa.com.au) Phone 08 8202 4689

DPTI: [www.dpti.sa.gov.au](http://www.dpti.sa.gov.au) Phone 08 8343 2222

## **New Zealand**

New Zealand Transport Agency: [www.rightcar.govt.nz](http://www.rightcar.govt.nz)  
Phone 0800 699 000

New Zealand Automobile Association: [www.aa.co.nz/safety](http://www.aa.co.nz/safety)  
Phone 0800 500 333 (option 2)