

# Crash Tests

## New Car Safety

### Holden Astra

06/2008 on 01/0001 - Frontal+Side+Head

#### Overall Evaluation



#### Overall Score

Variant: CDX, SRI & CDTI hatches

33.54 out of 37

Engine: 1.6 litre

Category: Small Car

The left-hand-drive European model was tested by Euro NCAP. Australasian specifications may vary and therefore models sold in Australasia might provide different levels of protection to those described on this page.

#### Model History and Safety Features

The Holden Astra was introduced in Australia during 2004. This updated rating applies to Astra CDX, SRI and CDTI variants built from June 2008. Dual front airbags, side airbags and head-protecting side curtains are standard equipment on the CDX, SRI and CDTI variants in Australia. The CD variant does not have side curtains. Antilock brakes (ABS), electronic brake distribution (EBD) and electronic stability control (ESC) are also standard. Intelligent seat belt reminders are fitted to both front seats. The front seat belt buckles are mounted on the seats and the upper anchorages are adjustable. These features improve the fit of the seat belt. Pretensioners are fitted to the front seat belts to reduce slack in the event of a crash. A three point seat belt is fitted to the centre rear seat. This provides better protection than a two point (lap) seat belt.

#### Overall Evaluation: 5

5 Stars. The Astra scored 13.67 out of 16 in the offset crash test. The passenger compartment held its shape very well. There was a slight risk of serious chest and leg injury for the driver and passenger.

The vehicle scored 15.87 out of 16 in the side impact crash test. There was a slight risk of serious chest injury for the driver. A further 2 points were scored in the optional pole test. A separate ANCAP rating is available for Astra CD.

#### Frontal Offset Crash Test

Body region scores out of 4 points each: Head/neck 4.000 pts, chest 2.944 pts, upper legs 3.000 pts, lower legs 3.729 pts.

The passenger compartment held its shape well in the offset crash test. The brake and clutch pedals broke away by design, to reduce the risk of injury. The accelerator pedal moved rearwards by 56mm and upwards 1 mm. The steering wheel hub moved 43mm forward, 2mm downward and 2 mm sideways. The front ("A") pillar moved 2 mm rearwards. All doors remained closed during the crash. After the crash all doors could be opened with normal effort.

The airbag cushioned the head of the driver and contact was stable. Dash components were a potential source of injury for the driver and passenger knees. The passenger's head was cushioned by the airbag.

#### Side Impact Crash Test

Body region scores out of 4 points each: Head 4 pts, chest 3.87 pts, abdomen 4 pts, pelvis 4 pts.

The vehicle was eligible for an optional pole impact test, since it had head-protecting side airbags and scored four points for the head in the side impact test. The manufacturer decided to go ahead with the pole test and the vehicle earned a further two points.

#### Pedestrian rating (v4.1)



Only two small areas of the bonnet top offered protection. But its leading edge and the car's bumper proved to be very unfriendly.

Child head impacts	0.94
Adult head impacts	2
Upper leg impacts	Zero
Lower leg impacts	Zero
Total (out of 36)	2.94

Offset crash test at 64km/hr



#### Injury Measurements

Refer to the information sheet 'How the tests are done'	Offset Crash Test at 64km/h (v4.1)		Side Impact Crash Test at 50km/h (v4.1)
	Driver	Passn	Driver
Head			
- HIC	372	198	62
- Acceleration (g for 3ms)	44.2	34.9	28
Neck			
- Shear (kN)	0.33	0.64	
- Tension (kN)	1.3	0.94	
- Extension (Nm)	17.5	20.6	
Chest			
- Acceleration (g for 3ms)			
- Compression (mm)	29.39	24.97	13.84
- Viscous Criterion (m/s)	0.09	0.09	0.11
Abdomen			
- Force (kN)			0.8
Pelvis			
- Force (kN)			1.54
Upper Legs Force (kN)			
- Left	0.25	0.29	
- Right	0.13	0.26	
Knee Displacement (kN)			
- Left	0	1.16	
- Right	0.08	0.44	
Lower Legs Force (kN)			
- Left	1.76	1.66	
- Right	2.32	1.4	
Index (Upper   Lower)			
- Left	0.42   0.19	0.27   0.16	
- Right	0.46   0.21	0.31   0.15	

#### Bonus points (maximum 5)

Pole Test: 2

Seat Belt Reminders: 2

#### Modifiers for offset test scores

Head	No deduction
Chest	No deduction
Upper leg	Variable contact
Lower leg	No deduction
Foot score	No deduction
Structure	4 points

#### Modifiers for side impact test scores

Head		
Chest	Backplate load	0.13 pt deduction
Upper leg		
Lower leg		
Foot score		
Structure		



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