

# Crash Tests

## New Car Safety

### Kia Cerato

03/2009 on 04/2009 - Frontal+Side+Head

#### Overall Evaluation



**Overall Score**  
Variant: S Sedan

**26.63 out of 37**  
Engine: 2 litre  
Category: Small Car

#### Model History and Safety Features

The tested model of Kia Cerato was introduced in Australia early in 2009. Dual front airbags, side airbags and head-protecting side curtains are standard equipment. Antilock brakes (ABS), electronic brake distribution (EBD) with Emergency Brake Assist is also standard. Electronic Stability Control (ESC) is standard in New Zealand and on the SLi variant in Australia. ESC is optional on the S variant. An advanced seat belt reminder is fitted to the driver seat. 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: 4

4 stars. The Cerato scored 9.63 out of 16 in the offset crash test. The passenger compartment held its shape well. There was a moderate risk of serious leg injury was for the driver. The vehicle scored 16 out of 16 in the side impact crash test.

#### Frontal Offset Crash Test

Body region scores out of 4 points each: Head/neck 4 pts, chest 3.55 pts, upper legs 0.39 pts, lower legs 1.69 pts.

The passenger compartment held its shape well in the offset crash test. The brake pedal moved rearwards by 124 and upwards 20 mm. The steering wheel hub moved 56 mm rearward, 1 mm upward and 13 mm sideways. The front ("A") pillar moved 42 mm rearwards. All doors remained closed during the crash. After the crash the driver door could be opened with high manual effort.

The airbag cushioned the head of the driver and contact was stable. Steering column components were a potential source of injury for the driver's knees. A production change introduced after the crash test has improved knee protection in this area but some concerns remain. 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 4 pts, abdomen 4 pts, pelvis 4 pts.

Although side curtain are fitted the vehicle was not eligible for a Pole Impact Test since it was not within reach of a 5 star rating. This test can earn eligible vehicles an extra two points.

#### Pedestrian rating (v4.1)



Child head impacts 8  
Adult head impacts 2  
Upper leg impacts Zero  
Lower leg impacts Zero  
Total (out of 36) 10

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 aa 50km/h (v4.1) Driver
	Driver	Passn	
<b>Head</b>			
- HIC	51	37	75
- Acceleration (g for 3ms)	415	228	28.9
<b>Neck</b>			
- Shear (kN)	0.37	0.58	
- Tension (kN)	1.52	0.93	
- Extension (Nm)	10	19.2	
<b>Chest</b>			
- Acceleration (g for 3ms)	46.6	32.9	
- Compression (mm)	25.16	24.8	20.5
- Viscous Criterion (m/s)	0.06	0.08	0.12
<b>Abdomen</b>			
- Force (kN)			0.816
<b>Pelvis</b>			
- Force (kN)			2.25
<b>Upper Legs Force (kN)</b>			
- Left	0.67	0.33	
- Right	5.92	2.44	
<b>Knee Displacement (kN)</b>			
- Left	4.02	0.53	
- Right	5.37	1.74	
<b>Lower Legs Force (kN)</b>			
- Left	2.74	1.98	
- Right	1.95	2.3	
<b>Index (Upper   Lower)</b>			
- Left	0.25   0.31	0.34   0.33	
- Right	0.49   0.92	0.36   0.25	

#### Bonus points (maximum 5)

Pole Test: Not eligible  
Seat Belt Reminders: 1

#### Modifiers for offset test scores

Head	No deduction
Chest	No deduction
Upper leg	Variable & Conc Loading 2 pt deduction R 1 pt deduct L
Lower leg	No deduction
Foot score	3.02 pts
Structure	Pedal rear movement 0.5 pt deduction with improved design of steering column but star rating unchanged.

#### Modifiers for side impact test scores

Head	
Chest	No deduction
Upper leg	
Lower leg	
Foot score	
Structure	



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