

# Crash Tests

## New Car Safety

### Kia Magentis

06/2006 on 12/2009 - Frontal+Side+Head

#### Overall Evaluation



#### Overall Score

28.32 out of 37

Variant: GL

Engine: 2.4 litre

Category: Medium Car

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

#### Model History and Safety Features

The tested model of Kia Magentis was introduced in Australia during 2006. Dual front airbags, side airbags and head-protecting side curtains are standard equipment. Antilock brakes (ABS), electronic brake distribution (EBD) and electronic stability control (ESC) are also standard in Australia. Side airbags, curtains and ESC are not standard on all New Zealand variants. 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. Pre-tensioners 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 Kia Magentis scored 9.99 out of 16 on the offset crash test. The passenger compartment held its shape reasonably well except for footwell deformation. Protection from serious chest injury and leg injury was marginal for the driver and passenger. The vehicle scored 14.33 out of 16 in the side impact crash test. There was a moderate risk of serious chest injury for the driver. A further two points were earned in the optional pole test.

#### Frontal Offset Crash Test

Body region scores out of 4 points each: Head/neck 4 pts, chest 2.09pts, upper legs 2pts, lower legs 1.9pts. The passenger compartment held its shape reasonably well in the offset crash test. The brake pedal moved rearwards by 137mm and upwards 54mm. The steering wheel hub moved rearwards 20mm, downwards 13mm and sideways 14mm. The front ("A") pillar moved 13mm rearwards. All doors remained closed during the crash. After the crash high manual effort was required to open the driver's door. The airbag cushioned the head of the driver and contact was stable. Steering column and dash components were a potential source of injury for the driver's knees. The passenger's head was cushioned by the airbag. Dash and glove box components were a knee injury hazard for the passenger.

#### Side Impact Crash Test

Body region scores out of 4 points each: Head 4pts, chest 2.36pts, abdomen 3.97pts, pelvis 4 pts. The vehicle was eligible for an optional pole test, since it had head-protecting side airbags and scored for 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)



Child head impacts: 2.870.  
Adult head impacts: zero.  
Upper leg impacts: zero.  
Lower leg impacts: zero.  
Total (out of 36): 2.87

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	
Head			
- HIC	395	211	53
- Acceleration (g for 3ms)	52.9	34.9	22.3
Neck			
- Shear (kN)	0.49	0.09	
- Tension (kN)	1.15	0.75	
- Extension (Nm)	10.9	12.3	
Chest			
- Acceleration (g for 3ms)			
- Compression (mm)	35.4	31.4	30.2
- Viscous Criterion (m/s)	0.12	0.22	0.38
Abdomen			
- Force (kN)			1.01
Pelvis			
- Force (kN)			1.15
Upper Legs Force (kN)			
- Left	2.66	2.58	
- Right	2.75	0.09	
Knee Displacement (kN)			
- Left	0.2	0	
- Right	1.3	0	
Lower Legs Force (kN)			
- Left	1.76	2.69	
- Right	2.39	0.85	
Index (Upper   Lower)			
- Left	0.45   0.36	0.36   0.25	
- Right	0.26   0.45	0.15   0.18	

#### Bonus points (maximum 5)

Pole Test: 2 pts

Seat Belt Reminders: 2

#### Modifiers for offset test scores

Head		no deduction
Chest		no deduction
Upper leg	variable & Conc. loading for passenger & driver	2 pt deduction L & R
Lower leg		no deduction
Foot score	Pedal rearward & blocked	1.9 points
Structure		

#### Modifiers for side impact test scores

Head		
Chest		no deduction
Upper leg		
Lower leg		
Foot score		
Structure		



Version 1, Published on: 21/11/2007  
Published by  
New Car Assessment Program  
PO Box 1555  
Canberra ACT Australia 2601