

Crash Tests

New Car Safety

BMW 5 Series

03/2004 on 05/2010 - Frontal+Side+Head

Overall Evaluation



Overall Score
Variant: 520i Sedan

28.88 out of 37
Engine: 2.2L
Category: Luxury

The 520i 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 tested model of BMW 5 Series was introduced in Australia during 2004.

Dual front airbags, side airbags and head-protecting inflatable side tubes are standard equipment. ABS brakes and electronic stability control (known as DSC) are also standard. Advanced 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 seat belt.

Overall Evaluation: 4

The BMW 5 Series scored 10.57 out of 16 in the offset crash test. Protection from serious chest and leg injury was marginal for the driver.

The vehicle scored 14.31 out of 16 in the side impact crash test. There was a slight risk of serious chest and abdomen injury for the driver. A further 2 points were scored in the optional pole test.

Frontal Offset Crash Test

Body region scores out of 4 points each: Head/neck 4pts, chest 1.82pts, upper legs 2pts, lower legs 2.75pts.

The passenger compartment held its shape very well in the offset crash test. The brake pedal moved rearwards by 54mm and downwards 1mm. The steering wheel hub moved rearwards 18mm, downwards 40mm and sideways 15mm. The front ("A") pillar moved 13mm rearwards. The width of the driver's doorway did not change. 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. Steering column and dash components were a potential source of injury for the driver and passenger knees.

Side Impact Crash Test

Body region scores out of 4 points each: Head 4pts, chest 3.03pts, abdomen 3.28pts, pelvis 4pts.

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)



2 points out of 36.
Child head impacts 2pts;
Adult head impacts zero pts;
Upper leg zero pts and lower leg impacts zero pts.

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	351	279	64
- Acceleration (g for 3ms)	47.1	41.5	26
Neck			
- Shear (kN)	1.15	0.31	
- Tension (kN)	0.69	0.58	
- Extension (Nm)	8.03	7.18	
Chest			
- Acceleration (g for 3ms)			
- Compression (mm)	37.26	22.64	26.84
- Viscous Criterion (m/s)	0.22	0.17	0.21
Abdomen			
- Force (kN)			1.27
Pelvis			
- Force (kN)			1.07
Upper Legs Force (kN)			
- Left	0.19	0.81	
- Right	0.65	1.26	
Knee Displacement (kN)			
- Left	0.62	1.49	
- Right	0.54		
Lower Legs Force (kN)			
- Left	1.91	2.24	
- Right	3.07	3.87	
Index (Upper Lower)			
- Left	0.48 0.51	0.35 0.22	
- Right	0.58 0.22	0.4 0.33	

Bonus points (maximum 5)

Pole Test: 2 points
Seat Belt Reminders: Fitted to both front seats - 2 points

Modifiers for offset test scores

Head	No deduction
Chest	No deduction
Upper leg	Variable Loading Drv, Variable & conc. loading Pas
Lower leg	No deduction
Foot score	Score 4 points
Structure	No deduction

Modifiers for side impact test scores

Head	Not assessed
Chest	Not assessed
Upper leg	Not assessed
Lower leg	Not assessed
Foot score	Not assessed
Structure	Not assessed



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