

Crash Tests

New Car Safety

Toyota RAV4

12/2002 on 06/2006 - Dual Frontal

Overall Evaluation



Overall Score
Variant: 5 Dr Hatch

25.11 out of 34
Engine: 2 Litre, 4 Cyl
Category: Compact SUV

Model History and Safety Features

The tested model of TOYOTA RAV4 was introduced in July 2000. Knee protection was upgraded in December 2002. This assessment applies to the upgraded model without optional curtain airbags.

Dual front airbags are standard equipment. 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. These seat belts also have load limiters. 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 TOYOTA RAV4 scored 10.194 out of 16 in the offset crash test. The passenger compartment held its shape reasonably well. The was a moderate risk of serious chest and leg injury for the driver.

The vehicle scored 14.921 out of 16 in the side impact crash test. There was a slight risk of serious chest injury for the driver.

Frontal Offset Crash Test

Body region scores out of 4 points each: Head/neck 4pts, chest 1.643pts, upper legs 2.195pts, lower legs 2.356pts.

The passenger compartment was held its shape reasonably well in the offset crash test. The front part of the driver's floor was pushed rearwards 208mm and was folded. The brake pedal moved rearwards by 121mm and upwards 29mm. The dash moved 67mm towards the driver. The steering wheel hub moved rearwards 61mm, upwards 34mm and sideways 66mm. The front ("A") pillar moved 78mm rearwards. The roof buckled upwards above the driver and the width of the driver's doorway shortened by 72mm. All doors remained closed during the crash. After the crash tools were required to open the driver's door.

The airbag cushioned the head of the driver. The head started to roll off the side of the airbag but was not sufficient to attract a penalty. The driver's knees hit the steering column and dash. The ignition switch barrel was found to be a potential source of knee injury. Although a recent upgrade to the steering column design has improved the protection a one point penalty for concentrated loading remains. The passenger's head was cushioned by the airbag. The passenger's knees hit the glove box and dash.

Side Impact Crash Test

Body region scores out of 4 points each: Head 4pts, chest 2.921pts, abdomen 4pts, pelvis 4pts.

This test simulates a fairly small car striking the driver's door of the vehicle under test. It is based on a regulation test but the regulation does not apply to vehicles with a high seat height like the RAV4. Such vehicles can be expected to perform relatively well in this particular side impact test. There was, however, a slight risk of serious chest injury for the driver.

The vehicle was not eligible for a Pole Impact Test since it did not have head-protecting side airbags. This test can earn eligible vehicles an extra two points, giving a maximum possible overall score of 34 points.

Pedestrian rating (v3)



9.89 points out of 36 (27.5%)
Child head impacts 3pts; adult head impacts 6.89pts; 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 (v3)		Side Impact Crash Test aa 50km/h (v3) Driver
	Driver	Passn	
Head			
- HIC	456	209	78
- Acceleration (g for 3ms)	52	34.1	38.9
Neck			
- Shear (kN)	0.37	0.64	
- Tension (kN)	1.91	0.94	
- Extension (Nm)	24	23.13	
Chest			
- Acceleration (g for 3ms)	43	35.6	
- Compression (mm)	38.5	29.7	27.393
- Viscous Criterion (m/s)	0.28	0.24	0.395
Abdomen			
- Force (kN)			0.601
Pelvis			
- Force (kN)			1.19
Upper Legs Force (kN)			
- Left	0.56	1.1	
- Right	4.86	2.02	
Knee Displacement (kN)			
- Left	0.44	3.21	
- Right	2.71	3.54	
Lower Legs Force (kN)			
- Left	1.41	1.32	
- Right	1.54	1.3	
Index (Upper Lower)			
- Left	0.35 0.77	0.31 0.29	
- Right	0.42 0.44	0.31 0.35	

Bonus points (maximum 5)

Pole Test: Not eligible
Seat Belt Reminders: Not eligible

Modifiers for offset test scores

Head	No deduction
Chest	No deduction
Upper leg	conc. loading
Lower leg	1 point deduction L & R
Foot score	No deduction
Structure	Score 3.16 pts
	movement
	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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