

# Crash Tests

## New Car Safety

### TOYOTA COROLLA

2001 on

Driver airbag

#### Overall Evaluation



Overall score

27.32 out of 34

Variant: 5 DR HATCH

Eng: 4cyl 1.8 litre.

Kerb weight: 1130 kg

Category: LIGHT/SMALL CAR

Vehicles built: 1/02

#### Model History and Safety features

The tested model of Toyota Corolla was introduced in 2001.

A driver's airbag is standard equipment. A passenger airbag is available on some other variants of the Corolla.

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 seat belts to reduce slack in the event of a severe crash.

#### OVERALL EVALUATION : 4 Stars

The TOYOTA COROLLA scored 11.32 out of 16 in the offset crash test. The passenger compartment held its shape well in this crash.

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 4pts, chest 2.66pts, upper legs 2pts, lower legs 2.67pts.

The passenger compartment held its shape well in the offset crash test. The front part of the driver's floor was pushed rearwards 88mm and had very little deformation. Thanks to an ingenious bracket design, the brake pedal moved forward to minimise the risk of foot injury. The dash moved 60mm towards the driver. The steering wheel hub moved rearwards 43mm, upwards 36mm and sideways 59mm. The front ("A") pillar moved 62mm rearwards. The roof was in good shape and the width of the driver's doorway shortened by 60mm. All doors remained closed during the crash but they were found to be locked after the crash - probably due to the dummy's hand striking the central locking switch. After the crash high manual effort was required to open the driver's door. Hazard lights activated during the crash.

The airbag cushioned the head of the driver and protection from serious injury was good. Airbag contact was stable but during rebound the driver's head came partially out of the side window and struck the B-pillar. The driver's knee hit steering column and dash. The ignition barrel and steering column adjuster bracket pose a hazard to the driver's knees. The passenger's head did not hit anything and protection was good. Chest protection for the passenger was marginal. 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 4pts, abdomen 4pts, pelvis 4pts.



Offset crash test at 64km/h

The driver's head hit the roof rail above the door but protection from serious injury was good.

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.

#### INJURY MEASUREMENTS

Refer to the information sheet "How the test are done"	Offset Crash Test at 64km/h		Side Impact Crash Test at 50km/h
	Driver	Passn	Driver
Head HIC	218	326	206
Acceleration (g for 3ms)	36.4	42.6	63.9
Neck - Shear (kN)	0.26	1.2	-
Tension (kN)	1.19	1.72	-
Extension (Nm)	17.57	13	-
Chest Accln (g for 3ms)	36.7	33.5	-
Compression (mm)	26.5	31.4	15.5
Viscous criterion (m/s)	0.08	0.09	0.15
Abdomen - Force (kN)	-	-	0.902
Pelvis - Force (kN)	-	-	2.27
Upper legs Force Left (kN)	1.61	0.08	
Upper legs Force Right (kN)	0.11	1.11	
Knee displ (mm) Left	1.4	0.15	
Knee displ (mm) Right	0.07	0.62	
Lower legs Force Left (kN)	1.61	1.19	
Lower legs Force Right (kN)	2.49	0.69	
Index (Upper/Low) Left	0.6/0.68	0.36/0.15	
Index (Upper/Low) Right	0.24/0.7	0.29/0.15	

#### Modifiers for offset test scores

Head		No penalty
Chest		No penalty
Upper leg	Variable & conc. loading	2pt penalty L&R
Lower leg	Brake pedal upward	No penalty
Foot score	Brake pedal rearward	4 points

#### Pedestrian rating



14 points out of 36 (38.9%)

Child head impacts 8pts; adult head impacts 6pts; upper leg zero pts and lower leg impacts zero pts.

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