# **Crash Test Results**

**New Car Safety** 

# **TOYOTA AURION**

2006 on Front+side+head airbags



Occupant Protection

Occupant Protection Score 30.03 out of 37

Variant: AT-X Eng: 3.5 litre V6

Kerb weight: 1580 kg Category: LARGE CAR/MPV

Vehicles built: 11/06

#### **Model History and Safety Features**

The tested model of Toyota Aurion was introduced in Australia during 2006.

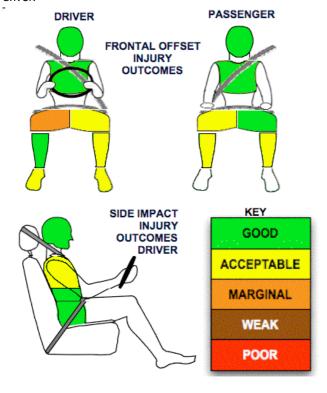
Dual front airbags, side airbags and head-protecting side curtains are standard equipment. Antilock brakes (ABS), electronic brake distribution (EBD) and electronic stability control (ESC) are also standard. An intelligent seat belt reminder is fitted to the driver's seat.

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. 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.

#### **OCCUPANT PROTECTION: 4 Stars**

The Toyota Aurion scored 13.59 out of 16 in the offset crash test. The passenger compartment held its shape well. Protection from serious leg injury was marginal for the driver

The vehicle scored 15.44 out of 16 in the side impact crash test. There was a slight risk of serious chest injury for the driver.





Offset crash test at 64km/h

## FRONTAL OFFSET CRASH TEST (v4.1)

Body region scores out of 4 points each: Head/neck 4 pts, chest 4 pts, upper legs 2 pts, lower legs 3.59 pts.

The passenger compartment held its shape well in the offset crash test. The park brake pedal moved rearwards by 101 mm and upwards 48 mm. The steering wheel hub moved forwards 5mm, upwards 27 mm and sideways 19 mm. The front ("A") pillar moved 17 mm rearwards. All doors remained closed during the crash. After the crash all doors could be opened with normal effort.

It was noted that the airbag deployed relatively late in the crash event. Despite this, the airbag still fully inflated, head contact was stable and injury measurements indicated a low risk of serious head injury.

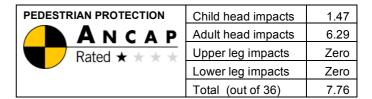
Steering column components were a potential source of injury for the driver's knees. The passenger's head was cushioned by the airbag.

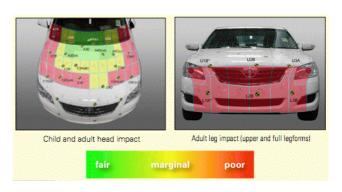
#### SIDE IMPACT CRASH TEST (v4.1)

Body region scores out of 4 points each: Head 4 pts, chest 3.44 pts, abdomen 4 pts, pelvis 4 pts.

The vehicle was eligible for an optional pole test but the manufacturer decided not to go ahead with this test, which can earn a further two points.

#### PEDESTRIAN PROTECTION RATING (v4.1)





#### **June 2007**

PO Box 1555 Canberra ACT Australia 2601 aurion06.doc Issued 6/6/07



## **TECHNICAL DATA - TOYOTA AURION - 2006 on**

#### **INJURY MEASUREMENTS**

| Body region             |            | Offset Crash Test at 64km/h<br>(v4.1) |            | Side Impact Crash<br>Test at 50km/h<br>(v4.1) |
|-------------------------|------------|---------------------------------------|------------|---|
|                         |            | Driver                                | Passenger  | Driver  |
| Head HIC                |            | 725                                   | 388        | 47  |
| Acceleration (g for     | 3ms)       | 76.2                                  | 48.9       | 24.4  |
| Neck - Shear (kN)       |            | 0.39                                  | 0.35       | -   |
| Tension (kN)            | )          | 2.53                                  | 1.00       | -   |
| Extension (N            | lm)        | 36.0                                  | 22.00      | -   |
| Chest Accln (g for 3ms) |            | 48.80                                 | 31.50      | -   |
| Compression (mm         | )          | 21.50                                 | 20.80      | 18.90   |
| Viscous criterion (r    | m/s)       | 0.10                                  | 0.09       | 0.14  |
| Abdomen - Force (       | kN)        | -                                     | 1          | 0.946   |
| Pelvis - Force (        | kN)        | -                                     | -          | 2.730   |
| Upper legs Force        | Left       | 2.18                                  | 0.52       |   |
|                         | (kN) Right | 0.30                                  | 4.03       |   |
| Knee displ (mm)         | Left       | 0.83                                  | 4.41       |   |
|                         | Right      | 0.38                                  | 4.04       |   |
| Lower legs Force        | Left       | 2.51                                  | 1.62       |   |
|                         | (kN) Right | 1.83                                  | 2.62       |   |
| Index (Upper/Low)       | Left       | 0.48 /0.39                            | 0.41 /0.30 |   |
|                         | Right      | 0.34 /0.25                            | 0.27/0.24  |   |

#### **Bonus points (maximum 5)**

Pole Test: Eligible but not tested

Seat belt reminders: 1 (see table below for details)

#### Modifiers - deductions from offset test scores

Head No deduction
Chest No deduction
Upper leg Variable & conc. loading 2 pt deduction right
1 pt deduction left

Lower leg No deduction

Foot score Park brake pedal movement Score 3.96 points Note: Steering column and pedal movements are measured relative to the driver's seat.



Chest Spine & backplate loads 0.56 pt deduction

## Safety features

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|--|---|--|-----|--|--|--|
| Driver airbag                                | S   | Antilock (ABS) brakes / Electronic brake distribution  | S/S |  |  |  |
| Passenger front airbag                       | S   | Electronic stability control (ESC, VSC, DSC, ESP, VSA) | S   |  |  |  |
| Side airbags, front seats - chest protection | S   | 3 point centre rear seat belt                          | S   |  |  |  |
| Side airbags. front seats - head protection  | S   | Active head restraints - front seats                   | S   |  |  |  |
| Side airbags. rear seats - head protection   | S   | Intelligent seat belt reminder - driver                | S   |  |  |  |
| Driver knee airbag                           | Х   | Intelligent seat belt reminder - front passenger       | Χ   |  |  |  |
| Front seat belt pretensioners                | S   | Rear seat belt status indicator                        | Х   |  |  |  |

#### Key:

S = standard on all variants

O = optional on base variant. May be standard on higher variants

V= not available on base variant but standard or optional on higher variants

X = not available on any variant



**PROGRAM** 

