

TEST RESULTS



BMW 3 Series

RATING	SCORE
 ADULT OCCUPANT 	10 Front: 2 Side: 8
 PEDESTRIAN 	N/A <small>Pre 2002 rating</small>

Adult occupant protection



Frontal impact
driver



Frontal impact
passenger



Side impact driver



Child restraints

18 month old Child	No information available
3 year old Child	No information available

Safety equipment

Front seatbelt pretensioners	<input type="checkbox"/>
Front seatbelt load limiters	<input checked="" type="checkbox"/>
Driver frontal airbag	<input checked="" type="checkbox"/>
Front passenger frontal airbag	<input type="checkbox"/>
Side body airbags	<input type="checkbox"/>
Side head airbags	<input type="checkbox"/>
Driver knee airbag	<input type="checkbox"/>

Comments

The 3-series' cabin became structurally unstable during the frontal impact and the driver ran a risk of life-threatening chest injury. The distance by which the steering wheel was displaced backwards posed further risks of injury, while stiff aggressive structures in the lower facia area also added greatly to the chances of the driver sustaining serious knee, thigh and pelvis injuries. In the side-impact test, protection for the driver's abdomen failed to meet coming 1998 legislation for new models.

Front impact

In the frontal impact, the 3-series suffered excessive movement of the screen pillar. The cabin became unstable, the driver's door lost structural integrity and the beam supporting the facia became partly separated from the car's side. The driver's door could be opened by hand after the test, but moderate force was needed. The passenger's door could be opened normally. The steering wheel was pushed backwards by 223mm (8.8in) and upwards by 14mm (0.6in). The impact resulted in excessive footwell intrusion, with the brake pedal being pushed rearwards by 321mm (12.6in). The standard-fit airbag triggered late and failed to offer adequate protection; the steering wheel also intruded too far into the car's cabin. This intrusion might have increased the probability of serious injury for different sized drivers or those in different seating positions. Neck protection was good. High levels of force transmitted via the seat belt, and the driver's chest hitting the steering wheel with sufficient force to bend it badly posed a high risk of injury. Facia-level intrusion and the instability of the cabin may have added to the level of hazard for different-sized drivers or those in different seating positions, so chest protection was down-rated to 'poor'. Had the impact occurred slightly differently,

TEST RESULTS

it could have caused greater facia intrusion. The driver's left knee struck the lower facia to the left of the steering column. Protection for that knee, thigh and pelvis was down-rated from 'good' to 'marginal': if the knee had impacted in a slightly different position horizontally or vertically, it could have hit the steering column or its adjuster locking bracket. The steering column, its adjuster or its mounting bracket could also have caused localised knee injuries. The driver's right knee struck the facia to the right of the steering column. Protection for the knee, thigh and pelvis was down-rated from 'weak' to 'poor': if this knee had been in a slightly different position, it could have struck a steering column stabilisation tube or a facia support bracket. Such rigid structures could also have been hit if the knee had penetrated the facia further. Furthermore, the column adjuster or facia brackets could have produced localised injury, as could the brake pivot or column stabilising tube. Excessive intrusion into the footwell presented a serious risk of foot and ankle injury. After the test the dummy's left foot was found to have become trapped between the car's firewall and the floor. Protection for the passenger was generally good, although forces transmitted by the seat belt could have caused chest injuries. Results obtained from the passenger dummy were not modified on the basis of any structural damage to the car.

Side impact

Side impact The driver's head and pelvis were well protected but the amount of protection provided for his chest was rated as 'weak', and for his abdomen, 'poor'.

Child occupant

The adult belt's anchorage sits forward of the child seat attachment points, and provides no restraint for the first part of any forward movement during a crash. This allowed the seats to twist in the test. The dummies travelled a long way forwards and, although their heads did not hit the front seats, the smaller dummy recorded a risk of serious injury. Child seat instruction labels are not clear.

Pedestrian

Child head impact Three of the six locations met proposed legislation. One was above the bonnet stay, one above the throttle cable housing and the last was on a bonnet crease. Two points were better than average but one point, situated above the corner of the battery, was worse. Upper leg impact None of the three tests met proposed legislation. On the bonnet's leading edge, all three locations were worse than average at the centre-line of the car, the inboard edge of one of the headlights and in line with the headlight centre. Adult head impact One location met proposed legislation: on the washer nozzle. The point above the brake fluid reservoir came close to requirements. Four points were better than average, one worse: above the bonnet hinge. Leg impact None of the three tests met the proposed requirements. The tests were worse than average at all three locations.