

# INSURANCE INSTITUTE FOR HIGHWAY SAFETY

## NEWS RELEASE

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### MAZDA6 GETS ACCEPTABLE RATING IN 5 MPH CRASH TESTS; 3 OF 6 VEHICLES TESTED HAVE POOR BUMPERS, AND DAMAGE TO SOME IS WORSE THAN TO EARLIER MODELS

ARLINGTON, VA — Bumpers on the midsize 2003 Mazda6 performed reasonably well in 5 mph crash tests conducted recently by the Insurance Institute for Highway Safety, but results for five other vehicles were disappointing. The midsize 2003 Infiniti G35, the 2004 Nissan Quest minivan, and the large luxury 2003 Mercedes E class earned poor ratings for bumper performance. The midsize 2003 Saab 9-3 and the 2004 Toyota Sienna minivan were marginal. None earned a good rating.

The Quest sustained far more damage than its predecessor model, which the Institute tested in 1999, dropping from a rating of good to poor. The 9-3 and the Sienna also performed somewhat worse than earlier designs.

5 MPH CRASH TEST RESULTS							
	Front into flat barrier	Rear into flat barrier	Front into angle barrier	Rear into pole	Total damage 4 tests	Average damage per test	Bumper rating
<b>Large luxury car</b>							
2003 Mercedes E class	\$691	\$586	\$978	\$2,944	\$5,199	\$1,300	POOR
<b>Midsize moderately priced cars</b>							
2003 Saab 9-3	\$178	\$529	\$993	\$1,313	\$3,013	\$753	MARGINAL
1999 Saab 9-3	\$0	\$156	\$724	\$1,482	\$2,362	\$591	ACCEPTABLE
2003 Infiniti G35	\$679	\$1,824	\$1,431	\$1,988	\$5,922	\$1,481	POOR
<b>Midsize inexpensive car</b>							
2003 Mazda6	\$151	\$521	\$398	\$297	\$1,367	\$342	ACCEPTABLE
<b>Minivans</b>							
2004 Toyota Sienna	\$380	\$1,152	\$987	\$688	\$3,207	\$802	MARGINAL
1998 Toyota Sienna	\$513	\$142	\$771	\$1,015	\$2,441	\$610	MARGINAL
2004 Nissan Quest	\$545	\$1,599	\$1,036	\$1,367	\$4,547	\$1,137	POOR
1999 Nissan Quest	\$0	\$378	\$771	\$316	\$1,465	\$366	GOOD
All repair costs reflect June 2003 parts and labor prices.							

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The vehicles were tested in four 5 mph impacts — front- and rear-into-flat-barrier plus front-into-angle-barrier and rear-into-pole. The tests assess how well bumpers can prevent damage in low-speed impacts, which are common in commuter traffic and parking lots. Average damage per test ranged from about \$340 for the Mazda6 to \$1,480 for the worst performer, the Infiniti G35.

**Three midsize cars:** Among the midsize cars the Institute tested, only the Mazda6 is equipped with bumpers that do an acceptable job of protecting the vehicle from significant damage. In the front-into-flat-barrier test, damage was limited because the bumper is designed to absorb the energy of a minor impact and keep it away from the car body.

"Mazda engineers gave at least some thought to bumpers on the new 6," says Adrian Lund, chief operating officer for the Institute. "In the front-into-flat-barrier test, only the relatively inexpensive grille and the foam inside the bumper had to be replaced."

In contrast, the G35 sustained more than four times as much damage in the same four bumper tests.

"The G35's bumpers are a disaster," says Lund. "Infiniti engineers attached an additional metal plate to the center of the rear bumper reinforcement bar to improve the car's performance in the pole test, but it didn't make much difference. There was extensive damage to body panels including a crushed trunk lid and floor pan."

Even in the rear-into-flat-barrier test, which isn't as demanding as the pole test, the G35 sustained more than \$1,800 damage. In this test, the bumper cover split and both rear fenders buckled.

The Saab 9-3 was redesigned for 2003, but its bumpers didn't fare well in the Institute tests. One problem showed up in the front-into-angle-barrier test — fixing the damage required removing the air conditioner condenser and the radiator just to replace the bumper bar. On average, the 9-3's bumpers allowed about \$160 more damage per test than its 1999 predecessor.

**One large luxury car:** The Institute tested the new Mercedes E class, which was the second worst performer in this round of tests. Average damage per test was \$1,300, and damage in the simplest front-into-flat-barrier test alone totaled almost \$700.

"The front bumper on the E class is designed more for style than substance," Lund says. "In fact, the front bumper reinforcement bar is actually positioned rearward of the leading edges of the headlamps. This is a terrible design considering that headlamps are safety equipment that should be undamaged in such low-speed crashes."

There was almost \$3,000 damage to the E class in the rear-into-pole test because the bumper failed to protect the car's expensive-to-fix fenders and trunk lid.

**Two minivans:** The Nissan Quest is an all-new design for 2004, "but Nissan engineers are going in the wrong direction in bumper design," Lund says. "The previous generation Quest did a good job resisting damage in a minor fender-bender. But buyers of the new model could get hit with big repair bills because its bumpers don't bump."

Damage to the new Quest was more than three times higher than the previous generation model. Repairs to the 2004 model topped \$1,000 in three of the four tests.

"The Quest has a flimsy plastic reinforcement bar in the rear bumper that cracked in two in the flat-barrier test. Even in a minor bump at a fast walking speed, the rear body was crushed and the tailgate was dented," says Lund.

The Sienna fared somewhat better, but its highest damage total was in one of the flat-barrier tests, which should allow the least damage. In the rear-into-flat-barrier impact, the damage was \$1,000 more for the new Sienna than for the 1998 model.

"The rear bumper should protect the expensive rear tailgate and other sheet metal from damage in such a simple crash," Lund says.

**End 3-page release on 5 mph crash tests  
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(C)Telstar 6/Trans. 22; includes test footage  
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